



# HUNTER RIVER HIGH SCHOOL

## INDIVIDUAL COURSE ASSESSMENT BOOKLET

# PRELIMINARY COURSE 2025





# **Aboriginal Studies**

## Assessment Schedule

Syllabus Outcomes	Syllabus Component Weight	<b>Task 1:</b> Perspectives on Relationship to Country	<b>Task 2:</b> Comparative Case Study	<b>Task 3:</b> Formal Written Examination
		<b>Date:</b> Term 1 Week 10	<b>Date:</b> Term 2 Week 9	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> P1.1, 2.2, 4.1	<b>Outcomes:</b> P2.2, 3.2, 3.3, 4.1, 4.2, 4.3	<b>Outcomes:</b> P1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 3.3
		<b>TASK WEIGHTINGS</b>		
Knowledge & understanding of content	40%	10%		30%
Investigation, analysis, synthesis & evaluation of information from a variety of sources & perspectives	15 %	5%	10%	
Research & enquiry methods	20%	10%	10%	
Communication of information, ideas & issues in appropriate forms	25%	5%	10%	10%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

### Outcomes

#### A student:

**P1.1** identifies different viewpoints about invasion and colonisation including the concept of shared histories between Aboriginal and non-Aboriginal peoples

**P1.2** explains the consequences of invasion and colonisation for Aboriginal and other Indigenous peoples on social justice and human rights

**P1.3** explains a variety of responses to social justice and human rights including bias and stereotyping of Aboriginal peoples and cultures

**P2.1** explains the meaning of the Dreaming to Aboriginal peoples

**P2.2** explains the importance of Country and the interrelationship between Country, culture, economic life and social systems for Aboriginal and other Indigenous peoples

**P3.1** describes government policies, legislation and legal decisions in relation to racism and discrimination

**P3.2** explains the impact of key government policies, legislation and legal decisions in relation to land and water rights, and heritage and identity

**P3.3** explains the responses and initiatives of Aboriginal and other Indigenous peoples to key government policies, legislation and legal decisions

**P4.1** plans, investigates, organises and communicates relevant information from a variety of sources incorporating Aboriginal and other Indigenous perspectives

**P4.2** undertakes community consultation and fieldwork and applies ethical research practices

**P4.3** investigates and compares the histories and cultures of Aboriginal peoples and other Indigenous people

## The structure of Aboriginal Studies

	<b>Preliminary Course</b> <b>Pre-contact to 1960s (120</b> <b>indicative hours)</b>		<b>HSC Course</b> <b>1960s onwards</b>	
<b>Core</b> 20%	<b>Core Part I: Aboriginality and the Land</b> <ul style="list-style-type: none"> <li>Aboriginal peoples' relationship to Country</li> <li>Dispossession and dislocation of Aboriginal peoples from Country</li> <li>Impact of British colonisation on Country.</li> </ul>		<b>Core Part I: A – Global Perspective</b> <ul style="list-style-type: none"> <li>Global understanding of human rights and social justice</li> </ul>	<b>Core</b> 20%
<b>Core</b> 30%	<b>Core Part II: Heritage and Identity</b> <ul style="list-style-type: none"> <li>The Dreaming and cultural ownership</li> <li>Diversity of Aboriginal cultural and social life</li> <li>Impact of colonisation on Aboriginal cultures and families</li> <li>Impact of racism and stereotyping.</li> </ul>		<b>Core Part I: B – Comparative Study</b> <ul style="list-style-type: none"> <li>A comparative case study on an Aboriginal and international Indigenous community, in relation to Two of the following topics:               <ol style="list-style-type: none"> <li>Health</li> <li>Education</li> <li>Housing</li> <li>Employment</li> <li>Criminal Justice</li> <li>Economic Independence.</li> </ol> </li> </ul>	<b>Core</b> 30%
<b>Core</b> 25%	<b>Core Part III: International Indigenous Community: Comparative Study</b> <ul style="list-style-type: none"> <li>Location, environment and features of an international Indigenous community</li> <li>Comparison of the key experiences of the international Indigenous and an Australian Aboriginal community in relation to:               <ul style="list-style-type: none"> <li>– Aboriginality and the Land</li> <li>– Heritage and Identity.</li> </ul> </li> </ul>		<b>Core Part II: A. Aboriginality and the Land</b> <ul style="list-style-type: none"> <li>The Land Rights movement and the recognition of native title</li> <li>Government policies and legislation</li> <li>Non-Aboriginal responses</li> </ul>	<b>Option</b> 20%
	<b>Core Part IV: Research and Inquiry Methods: Local Community Case Study</b>		<b>Core Part III: Research and Inquiry Methods – Major Project</b>	



<p><b>Core</b> 25%</p>	<p>An aspect of the local community from pre-contact to the present</p> <p>Methods and skills relating to:</p> <ul style="list-style-type: none"> <li>• Community consultation</li> <li>• Planning research</li> <li>• Acquiring information</li> <li>• Processing information</li> <li>• Communicating information.</li> </ul>	<p>A student's Major Research project on an aspect of the HSC course</p> <p>Methods and skills relating to:</p> <ul style="list-style-type: none"> <li>• Community consultation</li> <li>• Planning research</li> <li>• Acquiring information</li> <li>• Processing information</li> <li>• Communicating information</li> </ul>	<p><b>Core</b> 30%</p>
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## Objectives and outcomes

<p><b>Objectives</b></p> <p><i>A student develops knowledge and understanding about:</i></p>	<p>Preliminary Course Outcomes</p> <p><i>A student:</i></p>	<p>HSC Course Outcomes</p> <p><i>A student:</i></p>
<p>1. social justice and human rights issues and how they impact on Aboriginal and other Indigenous peoples</p>	<p>P1.1 identifies different viewpoints about invasion and colonisation including the concept of shared histories between Aboriginal and non-Aboriginal peoples</p> <p>P1.2 explains the consequences of invasion and colonisation for Aboriginal and other Indigenous peoples on social justice and human rights</p> <p>P1.3 explains a variety of responses to social justice and human rights issues including bias and stereotyping of Aboriginal peoples and cultures</p>	<p>H1.1 evaluates the impact of different viewpoints of colonialism on Aboriginal and other Indigenous peoples</p> <p>H1.2 analyses and discusses the social justice and human rights issues that are contemporary consequences of colonialism on Aboriginal and other Indigenous peoples</p> <p>H1.3 assesses the representation of Aboriginal peoples and cultures for bias and stereotyping</p>
<p>2. the diversity of contemporary Aboriginal and other Indigenous peoples cultural, political, social and economic life</p>	<p>P2.1 explains the meaning of the Dreaming to Aboriginal peoples</p> <p>P2.2 explains the importance of Country and the interrelationship between Country, culture, economic life and social systems for Aboriginal and other Indigenous peoples</p>	<p>H2.1 examines contemporary expressions of Aboriginal and other Indigenous peoples' culture, heritage and identity</p> <p>H2.2 analyses the importance of Country as a contemporary issue impacting on Aboriginal and other Indigenous peoples' cultural, political, social and economic life</p>

<p>3. government policies, legislation and legal decisions and their impact on Aboriginal and other Indigenous peoples</p>	<p>P3.1describes government policies, legislation and legal decisions in relation to racism and discrimination</p> <p>P3.2explains the impact of key government policies, legislation and legal decisions in relation to land and water rights, and heritage and identity</p> <p>P3.3explains the responses and initiatives of Aboriginal and other Indigenous peoples to key government policies, legislation and legal decisions</p>	<p>H3.1assesses the effectiveness of government policies, legislation and legal decisions in addressing discrimination</p> <p>H3.2evaluates the impact of key government policies, legislation and legal decisions on the socioeconomic status of Aboriginal peoples and communities</p> <p>H3.3evaluates initiatives that promote the social, economic and political independence of Aboriginal and other Indigenous peoples</p>
<p><i>A student develops skills to:</i></p>	<p><i>A student:</i></p>	<p><i>A student:</i></p>
<p>1. investigate issues and communicate information from a variety of perspectives</p>	<p>P4.1plans, investigates, organises and communicates relevant information from a variety of sources incorporating Aboriginal and other Indigenous perspectives</p> <p>P4.2undertakes community consultation and fieldwork and applies ethical research practices</p> <p>P4.3investigates and compares the histories and cultures of Aboriginal peoples and other Indigenous peoples</p>	<p>H4.1plans, investigates, analyses, synthesises and communicates relevant information, incorporating Aboriginal and other Indigenous peoples' perspectives</p> <p>H4.2undertakes community consultation and fieldwork and applies ethical research practices</p> <p>H4.3investigates and compares the histories and cultures of Aboriginal peoples and other Indigenous peoples</p>

# Performance Band Descriptions

The typical performance in this band:

## Band 6

- displays extensive knowledge and understanding of social justice, human rights and other contemporary issues and how they impact on Aboriginal and other Indigenous peoples
- comprehensively compares and evaluates the experiences of Aboriginal peoples and other Indigenous peoples using relevant and specific examples
- displays a comprehensive, detailed and contextual knowledge and understanding of the commonalities and differences in the histories and cultures of Aboriginal and other Indigenous peoples in a global context
- investigates, analyses and synthesises information from a variety of Aboriginal, non-Aboriginal and other Indigenous peoples' perspectives
- communicates comprehensive analysis from a variety of local, national and/or global perspectives
- extensive knowledge of appropriate Indigenous research methodologies and their application in undertaking community consultation and fieldwork

## Band 5

- displays detailed knowledge and understanding of social justice, human rights and other contemporary issues and their significance to Aboriginal and other Indigenous peoples
- thoroughly compares and contrasts the experience of Aboriginal peoples and Indigenous peoples using relevant examples
- displays a detailed and contextual knowledge and understanding of the commonalities and differences in the histories and cultures of Aboriginal and other Indigenous peoples in a global context
- investigates and analyses information from a variety of Aboriginal, non-Aboriginal and Indigenous peoples' perspectives
- communicates detailed analysis from a variety of local, national and/or global perspectives
- accomplished knowledge of Indigenous research methodologies and their relevance to community consultation and fieldwork

## Band 4

- demonstrates sound knowledge of social justice, human rights and other contemporary issues and how they relate to Aboriginal and other Indigenous peoples
- compares the experiences of Aboriginal peoples and Indigenous peoples using some applicable examples
- demonstrates sound knowledge of the histories and cultures of Aboriginal and other Indigenous peoples in a global context
- investigates information from a variety of Aboriginal, non-Aboriginal and other Indigenous people's perspectives
- communicates a variety of local, national and/or global perspectives
- sound knowledge of Indigenous research methodologies and their connection with community consultation and fieldwork

## Band 3

- demonstrates knowledge of social justice, human rights and other contemporary issues and how they relate to Aboriginal and other Indigenous peoples
- recounts the experiences of Aboriginal peoples and Indigenous peoples using some examples
- recounts the histories and cultures of Aboriginal and other Indigenous peoples
- recounts information from a variety of Aboriginal, non-Aboriginal and other Indigenous people's perspectives
- endeavours to communicate using local, national and/or global perspectives
- basic knowledge of Indigenous research methodologies and their importance to community consultation and fieldwork

**Band 2**

- demonstrates awareness of and attempts to recall elementary knowledge of social justice, human rights and other contemporary issues and what they mean to Aboriginal and other Indigenous peoples
- expresses opinions about Aboriginal peoples and other Indigenous peoples with minimal supporting evidence
- limited reference to the histories and cultures of Aboriginal and other Indigenous peoples
- attempts to recount information from a variety of Aboriginal, non-Aboriginal and other Indigenous people's perspectives
- expresses a personal point of view using local, national and/or global perspectives
- some knowledge of Indigenous research methodologies and their role in community consultation and fieldwork

**Band 1**

## Scope and Sequence

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1	Part 1: Aboriginality and the Land Outcomes: P1.1, 1.2, 2.1, 2.2, 3.2						Part 2: Heritage and Identity Outcomes: P1.2,			
	Aboriginal peoples' relationship to Country  Dispossession and dislocation of Aboriginal peoples from Country						The Dreaming, customary lore, traditional law and cultural ownership  Impact of colonisation on Aboriginal cultures and families			
Term 2	1.3, 2.1, 2.2, 3.1, 3.2, 3.3					Part 3: International Comparative Study Outcomes: P1.2, 2.2,				
	Impact of racism and prejudice					Comparison with an international Indigenous community of: <ul style="list-style-type: none"> <li>• traditional lifestyles and social structures</li> <li>• key experiences and impacts of colonisation</li> <li>• key government policies, legislation and legal decisions in relation to land and water rights</li> <li>• responses/initiatives of Aboriginal and other Indigenous peoples to key government action and decisions affecting the selected communities</li> </ul>				
Term 3	3.2, 3.3, 4.1, 4.3		Part 4: Research and Inquiry Methods Outcomes: 4.1, 4.2							
			Community consultation Planning research Acquiring information Processing information Communicating information							

## Syllabus Topic 1

### Part I – Aboriginality and the Land

Indicative course time: 20%

The focus of *Aboriginality and the Land* is Aboriginal peoples' relationship to Country and the impact of dispossession and colonisation on this relationship, with reference to an Australian Aboriginal community.

#### **Students learn about:**

Aboriginal peoples' relationship to Country

- key concepts including: Country, Dreaming, customary lore, traditional law
- relationship of Country to peoples, cultures, spirituality, health and lifestyles

Dispossession and dislocation of Aboriginal peoples from Country

- key concepts including: colonisation, invasion, resistance, settlement, genocide, shared histories, social justice, human rights, sovereignty, *terra nullius*, native title
- Aboriginal and non-Aboriginal land management practices and their impact on the environment
- impact of British colonisation on Aboriginal peoples' relationship to Country
- the impact of key government legislation and policies in relation to Aboriginal peoples' land and water rights
- impact and consequences of dispossession and dislocation of Aboriginal peoples in terms of social justice and human rights
- Aboriginal initiatives to counteract the impact of dispossession and dislocation, which may include resistance, protest and use of political and legal systems.
- Aboriginal and non-Aboriginal interpretations and perspectives of contact history.

#### **Students learn to:**

- gather, select and organise information in relation to Aboriginal peoples' relationship to Country including the Dreaming
- make deductions and draw conclusions about the impact of dispossession and dislocation on Aboriginal peoples in terms of social justice and human rights
- construct coherent oral and/or written texts to explain the impact of key government legislation and policies in relation to Aboriginal peoples' land and water rights
- present balanced oral and/or written arguments about Aboriginal and non-Aboriginal land management practices and their impact on the environment
- make informed judgements about the effectiveness of Aboriginal peoples' initiatives to counteract the impact of dispossession from Country
- gather, select and organise information on Aboriginal and non-Aboriginal interpretations of colonisation, including concepts of 'invasion' and shared histories.



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Aboriginal Studies
<b>Teacher:</b>	Miss Miller
<b>Assessment Task:</b>	1
<b>Assessment Task Name:</b>	Perspectives on Relationship to Country
<b>Date Issued:</b>	Term 1, Week 6
<b>Date and Time Due:</b>	Term 1, Week 10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	3 lessons
<b>Presentation and Submission Guidelines:</b>	Your task is to be submitted in hard copy or by digital file by 3:20 on the due date. Email to: <a href="mailto:karen.miller13@det.nsw.edu.au">karen.miller13@det.nsw.edu.au</a>
<b>Marking Process:</b>	Tasks will be marked by class teacher using the included criteria.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>



P.1.1	A student identifies different viewpoints about invasion and colonisation including the concept of shared histories between Aboriginal and non-Aboriginal peoples.
P.1.2	A student explains the consequences of invasion and colonisation for Aboriginal and other Indigenous peoples in terms of social justice and human rights
P.2.2.	A student explains the importance of Country and the interrelationships between Country, culture, economic life and social systems for Aboriginal and other Indigenous peoples.

**Participant Declaration:**

I declare that the submitted assessment task represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment task has not been submitted for any other form of credit, in any other learning environment.

*Participant's Signature:* \_\_\_\_\_

### Task Description:

For this assessment task you are to examine a **portfolio** of **3 sources** that relate to the following topics and respond to the associated questions.

**Source A: Impact of land loss**

**Source B: Aboriginal people's relationship to Country**

**Source C: Sites of significance**

### Process

**Step 1:** Examine Source A and read the **model response**. This has been included to demonstrate the requirements of the task.

**Step 2:** Complete the **Guided Response**. With guidance from your teacher compose a response to the question, making reference to Source B and your own knowledge.

**Step 3:** Complete the **Independent Response**, making reference to Source C and your own knowledge.

### Success Criteria:

Students will be assessed on their ability to:

- Identify different viewpoints represented within sources, understanding the importance of shared histories between Aboriginal and non-Aboriginal peoples
- Describe impacts of colonisation on the social justice and human rights of Aboriginal people
- Communicate the importance of Country to Aboriginal peoples with relation to specific sources
- Make reference to the identified sources and their own knowledge to respond to questions.

Marking Criteria	Marks
<ul style="list-style-type: none"> <li><input type="checkbox"/> Extensively explains the importance of protecting sites of significance for Aboriginal peoples</li> <li><input type="checkbox"/> Integrates information from the source material and own knowledge</li> <li><input type="checkbox"/> Presents a sustained, logical and cohesive response applying relevant terms and concepts</li> </ul>	9-10
<ul style="list-style-type: none"> <li><input type="checkbox"/> Explains the importance of protecting sites of significance for Aboriginal peoples</li> <li><input type="checkbox"/> Makes reference to the source material and own knowledge</li> <li><input type="checkbox"/> Presents a logical and cohesive response including relevant terms and concepts</li> </ul>	7-8
<ul style="list-style-type: none"> <li><input type="checkbox"/> Demonstrates sound understanding of the importance of protecting sites of significance for Aboriginal peoples</li> <li><input type="checkbox"/> Makes reference to the source material AND/OR own knowledge</li> <li><input type="checkbox"/> Presents a structured response using some relevant terms and concepts</li> </ul>	5-6
<ul style="list-style-type: none"> <li><input type="checkbox"/> Demonstrates some knowledge of the importance of protecting sites of significance for Aboriginal peoples</li> <li><input type="checkbox"/> May make reference to the source material</li> <li><input type="checkbox"/> Uses some relevant terms and concepts</li> </ul>	3-4
<ul style="list-style-type: none"> <li><input type="checkbox"/> Makes general statements about sites of significance</li> <li><input type="checkbox"/> May refer to the source</li> </ul>	1-2

## Syllabus: Topic 2

### Part II – Heritage and Identity      Indicative course time: 30%

The focus of *Heritage and Identity* is on Aboriginal social systems, the diversity of Aboriginal social and cultural life, and the impact of invasion and colonisation on Aboriginal culture and social life, with reference to an Australian Aboriginal community.

#### **Students learn about:**

The Dreaming, customary lore, traditional law and cultural ownership

- diversity of Aboriginal cultures
- the relationship of the Dreaming to culture, family, heritage and identity. (This could include: language, painting, rock art, dance, drama, storytelling, music, ceremonial life and oral history)
- kinship and Aboriginal systems – social, economic and spiritual
- ownership of culture, history and knowledge

Impact of colonisation on Aboriginal cultures and families

- key concepts: culture, family, social systems, identity, community
- the effect of colonisation on Aboriginal social systems and languages
- comparison of Aboriginal and non-Aboriginal social systems
- effect of Christianity and other religions on Aboriginal social systems
- impact of enforced cultural changes on Aboriginal peoples' heritage and identity.

Impact of racism and prejudice

- key concepts: racism, prejudice, ethnocentrism, stereotyping
- the construction and origin of racism and its contribution to stereotyping and discrimination of Aboriginal peoples and their cultures
- impact of government policies such as protection, assimilation and integration, with particular reference to the separation of family and kin and culture.

#### **Students learn to:**

- gather, select and organise information on the main cultural and spiritual aspects that combine to form Aboriginal peoples' relationship to the Dreaming
- make deductions and draw conclusions about the impact of colonisation on kinship in Aboriginal social systems
- present balanced oral and/or written arguments about the effects of government policies including the separation of Aboriginal families, with particular reference to the Stolen Generations
- analyse the reliability of sources in relation to bias and stereotyping of Aboriginal peoples and cultures
- assess a range of views and interpretations about the impact of key government legislation and policies on Aboriginal heritage and/or identity.

## Syllabus Topic 3

### Part III – International Indigenous Community: Comparative Study

**Indicative course time: 25%**

The focus of this *international Indigenous community: Comparative study* is on the similarities and differences in the experiences of Indigenous communities that have suffered the loss of sovereignty and the ongoing social, cultural, economic and political effects of colonisation.

This study compares key experiences of an international Indigenous community with the Australian Aboriginal community referred to in Parts I and II in relation to the two themes of the course: Aboriginality and the Land and Heritage and Identity.

#### **Students learn about:**

The following features in an Australian and an international Indigenous community (the selected communities). Students may use information from the Australian community/ies studied in Parts I and II, or they may study a new community/ies.

- key experiences of colonisation in the selected communities
- key features of the importance of Country in the selected communities
- key features of the social systems of the selected communities
- key government policies, legislation and legal decisions in relation to land and water rights and heritage and identity affecting the selected communities
- responses/initiatives of Aboriginal and other Indigenous peoples to key government policies, legislation and legal decisions affecting the selected communities (eg in relation to Aboriginality and the land and or heritage and identity)
- a variety of reliable and relevant sources of information about the selected communities
- key similarities and differences in the histories and cultures of the selected communities

#### **Students learn to:**

- make deductions and draw conclusions about the impact of colonisation on the selected communities in terms of social justice and human rights
- explain the importance of Country and the interrelationship between Country and culture in the selected communities
- present informed oral and/or written accounts of the impact of invasion and colonisation on the cultural, social and economic life of the selected communities
- make deductions and draw conclusions about the impact of key government policies, legislation and legal decisions in relation to land and water rights and heritage and identity in the selected communities
- make judgements about the effectiveness of Aboriginal and other Indigenous peoples' responses/initiatives to key government policies, legislation and legal decisions affecting the selected communities
- gather, select and organise relevant information from a variety of sources in order to make informed comparisons
- makes informed comparisons about the histories and cultures of Aboriginal and other Indigenous peoples within the selected communities



<b>Student Name:</b>	
<b>Subject/Course:</b>	Aboriginal Studies
<b>Teacher:</b>	Miss Miller
<b>Assessment Task #:</b>	AT 2
<b>Assessment Task Name:</b>	Comparative Case Study
<b>Date Issued:</b>	Term 2, Week 5
<b>Date and Time Due:</b>	Term 2, Week 9
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	4 Lessons
<b>Presentation and Submission Guidelines:</b>	Answer Booklet Turned in on Google Classroom or printed copy submitted by due date and time.
<b>Marking Process:</b>	Total possible marks: 30. Marked according to included marking guidelines.
<b>Outcomes Assessed:</b>	
<b>A student:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P2.2	explains the importance of Country and the interrelationship between Country, culture, economic life and social systems for Aboriginal and other Indigenous peoples
P3.1	describes government policies, legislation and legal decisions in relation to racism and discrimination

P3.2	explains the impact of key government policies, legislation and legal decisions in relation to land and water rights, and heritage and identity
P3.3	explains the responses and initiatives of Aboriginal and other Indigenous peoples to key government policies, legislation and legal decisions
P4.1	plans, investigates, organises and communicates relevant information from a variety of sources incorporating Aboriginal and other Indigenous perspectives
P4.2	undertakes community consultation and fieldwork and applies ethical research practices
P4.3	investigates and compares the histories and cultures of Aboriginal peoples and other Indigenous people

### Task Description:

This task requires you to complete a comparison study of the key experiences of the international Indigenous community of the Sioux people with the Australian Worimi community in relation to the two themes of the course: Aboriginality and the Land and Heritage and Identity before and after colonisation.

There are three parts to this assessment task.

#### **Part A: Complete the tables comparing each community on these features:**

1. Traditional Lifestyle: Identify the social and cultural traditions of the Indigenous communities. (Teacher Constructed)
2. Importance of Country: Compare the importance and relationship to Country for each community. Include how this was demonstrated by each community and how it was impacted after colonisation. (Co-construction)
3. Experiences of Colonisation: Outline the experiences and impact of colonisation for each community. Include the efforts of each group to defend their human rights. (Independent Construction) (4 marks)

#### **Part B: Demonstrate your understanding of the study by responding to the questions.**

1. Describe how each community demonstrates their connection with the land. (4 marks)
2. Evaluate the impact of colonisation on these communities. (10 marks)

**Part C:** Include a **Bibliography** with the sources of your research correctly referenced. (2 marks)

**Success Criteria:**

- ✓ I have identified similarities and differences in the experiences and impact of colonisation on the communities studied.
- ✓ I can describe the beliefs and practices of each group that demonstrates their connection to the land.
- ✓ I can explain how each community was colonised and the impacts this had on the communities studied.
- ✓ I can make a judgement on the consequences to lifestyle, heritage and identity of colonisation for the studied communities.



Marking Guidelines: Comparative Table	Marks
<ul style="list-style-type: none"> <li>□ comprehensively outlines the experiences of Aboriginal and other Indigenous peoples during colonisation making relevant references to specific examples</li> <li>□ displays a comprehensive and detailed knowledge and understanding of the similarities and differences in the histories and cultures of Aboriginal and other Indigenous peoples</li> </ul>	4
<ul style="list-style-type: none"> <li>□ accurately outlines the experience of Aboriginal and other Indigenous peoples during colonisation using relevant examples</li> <li>□ displays a sound knowledge and understanding of the similarities and differences in the histories and cultures of Aboriginal and other Indigenous peoples</li> </ul>	2-3
<ul style="list-style-type: none"> <li>□ makes some comparisons of the experiences of Aboriginal and other Indigenous peoples during colonisation</li> <li>□ demonstrates limited knowledge of the histories and cultures of Aboriginal and/or other Indigenous peoples</li> </ul>	1
<ul style="list-style-type: none"> <li>□ No attempt is made to complete the table.</li> </ul>	0
Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>□ Describes in detail how Aboriginal and other Indigenous peoples demonstrate their connection with the land</li> <li>□ makes detailed references to the similarities and differences between the communities studied</li> <li>□ composes a well-structured, correctly punctuated and accurate response including relevant terms and concepts</li> </ul>	4
<ul style="list-style-type: none"> <li>□ describes how Aboriginal and other Indigenous peoples demonstrate their connection with the land</li> <li>□ makes clear references to both of the communities studied</li> <li>□ composes accurate responses using relevant terms and concepts</li> </ul>	3
<ul style="list-style-type: none"> <li>□ Attempts to describe how Aboriginal and other Indigenous peoples demonstrate their connection with the land</li> <li>□ May reference one or both of the communities studied</li> </ul>	1 –2
<ul style="list-style-type: none"> <li>□ Student makes no attempt to respond to the question</li> </ul>	0
Marking Guidelines:	Marks

<ul style="list-style-type: none"> <li><input type="checkbox"/> demonstrates an extensive knowledge of the impacts of colonisation on Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> provides a thorough evaluation of how colonisation impacted on the lifestyles, cultures, wellbeing and identities of Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> makes detailed references to the similarities and differences between the communities studied</li> <li><input type="checkbox"/> composes a well-structured, correctly punctuated and accurate response including relevant terms and concepts</li> </ul>	9 - 10
<ul style="list-style-type: none"> <li><input type="checkbox"/> demonstrates a clear understanding of the impacts of colonisation on Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> provides an accurate evaluation of how colonisation impacted on the lifestyles, cultures, wellbeing and identities of Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> makes clear references to both of the communities studied</li> <li><input type="checkbox"/> composes an accurate response using relevant terms and concepts</li> </ul>	7 - 8
<ul style="list-style-type: none"> <li><input type="checkbox"/> provides a sound evaluation of the impacts of colonisation for Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> makes references to both of the communities studied</li> <li><input type="checkbox"/> Includes relevant terms and concepts</li> </ul>	5 - 6
<ul style="list-style-type: none"> <li><input type="checkbox"/> attempts to evaluate the impacts of colonisation on Aboriginal and other Indigenous peoples</li> <li><input type="checkbox"/> may reference one or both of the communities studied</li> <li><input type="checkbox"/> includes some relevant key terms</li> </ul>	3 - 4
<ul style="list-style-type: none"> <li><input type="checkbox"/> makes limited statements about the impacts of colonisation</li> <li><input type="checkbox"/> makes attempts to include key terms</li> </ul>	1 - 2
<ul style="list-style-type: none"> <li><input type="checkbox"/> student makes no attempt to respond to the question</li> </ul>	0
<b>Marking Guidelines:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li><input type="checkbox"/> includes a correctly referenced bibliography with a variety of relevant sources and perspectives</li> </ul>	2
<ul style="list-style-type: none"> <li><input type="checkbox"/> includes a list of websites accessed</li> </ul>	1
<ul style="list-style-type: none"> <li><input type="checkbox"/> student does not include a bibliography</li> </ul>	N

## Syllabus Topic 4

### Part IV – Research and Inquiry Methods: Local Community Case Study

Indicative course time: 25%

The focus of *Research and Inquiry Methods* is the development of research and communication skills within the context of the local Aboriginal community. These skills, which are developed throughout the Preliminary course, are applied in a local community case study

#### **Students learn about:**

##### **Community consultation**

- using appropriate community consultation protocols and fieldwork methodologies
- awareness of cultural differences and sensitivities
- applying ethical research practices including recognition of Indigenous knowledges

##### **Planning research**

- identifying an appropriate research focus related to the local community
- developing a project proposal that includes methods of investigation and potential resources
- maintaining a log to record fieldwork, correspondence and reading

##### **Acquiring information**

- collecting data from primary and secondary sources
- using quantitative and qualitative research methodologies
- applying ethical research practices including issues of copyright and ownership

##### **Processing information**

- analysing data from a variety of sources, including statistical data, to interpret meaning and make generalisations
- judging usefulness and reliability of data
- distinguishing between fact and opinion, identifying bias

##### **Communicating information**

- reflecting Aboriginal viewpoints in submitted work
- using a variety of media to express ideas
- communicating to appropriate audiences about their research

#### **Students learn to:**

- plan an investigation of an issue related to their local community
- maintain records of key aspects of their investigation of the local community case study
- acknowledge the history of the local area and be sensitive to the impact this may have had on the local Aboriginal community
- consult with members of the local Aboriginal community in culturally appropriate and ethical ways
- develop appropriate data collection methods for gathering useful information
- use information technologies appropriate to their research
- synthesise information from a variety of appropriate sources and perspectives
- acknowledge ownership and copyright in the final presentation of project work.



## Hunter River High School

### ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Aboriginal Studies
<b>Teacher:</b>	Miss Miller
<b>Assessment Task #:</b>	3
<b>Assessment Task Name:</b>	Formal Written Examination
<b>Date Issued:</b>	Term 3, Week 7
<b>Date and Time Due:</b>	Term 3, Week 9/10
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Exam time will be posted on examination timetable
<b>Presentation and Submission Guidelines:</b>	Students will sit a 2 hour examination consisting of: <ul style="list-style-type: none"><li>- multiple choice</li><li>- short answer responses</li><li>- extended essay response</li></ul>
<b>Marking Process:</b>	To be marked by teacher

#### Outcomes Assessed:

##### A student:

<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1.2	explains the consequences of invasion and colonisation for Aboriginal and other Indigenous peoples in terms of social justice and human rights
P2.1	explains the meaning of the Dreaming to Aboriginal peoples
P2.2	explains the importance of Country and the interrelationship between Country, culture, economic life and social systems for Aboriginal and other Indigenous peoples

P3.2	explains the impact of key government policies, legislation and legal decisions in relation to land and water rights, and heritage and identity
P3.3	explains the responses and initiatives of Aboriginal and other Indigenous peoples to key government policies, legislation and legal decisions
P4.1	plans, investigates, organises and communicates relevant information from a variety of sources incorporating Aboriginal and other Indigenous perspectives
P4.3	investigates and compares the histories and cultures of Aboriginal peoples and other Indigenous people



**Biology**

# Biology

Syllabus Outcomes	Syllabus Component Weight	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Practical: Enzyme Activity	Depth Study: Adaptations to a Local Environment	Examination
		<b>Date:</b> Term 1 Week 10	<b>Date:</b> Term 2 Week 9	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> BIO11/12-1 BIO11/12-2 BIO11/12-3 BIO11/12-4 BIO11/12-5 BIO11/12-7 BIO11-8	<b>Outcomes:</b> BIO11/12-5 BIO11/12-6 BIO11/12-7 BIO11-9 BIO11-10	<b>Outcomes:</b> BIO11/12-6 BIO11-8 BIO11-9 BIO11-10 BIO11-11
TASK WEIGHTINGS				
Modules Assessed		Module 1	Modules 2-3	Modules 1-4
Skills in working scientifically	60%	25%	25%	10%
Knowledge and understanding of course content	40%	5%	5%	30%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Outcomes

### A student:

BIO11/12-1	develops and evaluates questions and hypotheses for scientific investigation
BIO11/12-2	designs and evaluates investigations in order to obtain primary and secondary data and information
BIO11/12-3	conducts investigations to collect valid and reliable primary and secondary data and information
BIO11/12-4	selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media
BIO11/12-5	analyses and evaluates primary and secondary data and information
BIO11/12-6	solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
BIO11/12-7	communicates scientific understanding using suitable language and terminology for a specific audience or purpose
BIO11-8	describes single cells as the basis for all life by analysing and explaining cells ultrastructure and biochemical processes
BIO11-9	explains the structure and function of multicellular organisms and describe show the coordinated activities of cells, tissues and organs contribute to macroscopic processes in organisms
BIO11-10	describes biological diversity by explaining the relationships between a range of organisms in terms of specialisation for selected habitats and evolution of species
BIO11-11	analyses ecosystem dynamics and the interrelationships of organisms within the ecosystem

# Biology Year 11 Course Content

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## Year 11 Course Structure and Requirements

		<b>Modules</b>	<b>Indicative hours</b>	<b>Depth studies</b>
<b>Year 11 course</b> <b>(120 hours)</b>	<b>Working Scientifically Skills</b>	<b>Module 1</b> Cells as the Basis of Life	60	*15 hours in Modules 1–4
		<b>Module 2</b> Organisation of Living Things		
		<b>Module 3</b> Biological Diversity	60	
		<b>Module 4</b> Ecosystem Dynamics		

\*15 hours must be allocated to depth studies within the 120 indicative course hours.

## Requirements for Practical Investigations

Scientific investigations include both practical investigations and secondary-sourced investigations. Practical investigations are an essential part of the Year 11 course and must occupy a minimum of 35 hours of course time, including time allocated to practical investigations in depth studies.

Practical investigations include:

- undertaking laboratory experiments, including the use of appropriate digital technologies
- fieldwork.

Secondary-sourced investigations include:

- locating and accessing a wide range of secondary data and/or information
- using and reorganising secondary data and/or information.

One fieldwork exercise must be completed in Year 11.



## Working Scientifically Skills

It is expected that the content of each skill will be addressed by the end of the Stage 6 course.

## Questioning and Predicting

### Outcomes

**A student:**

- › develops and evaluates questions and hypotheses for scientific investigation BIO11/12-1

### Content

Students:

- develop and evaluate inquiry questions and hypotheses to identify a concept that can be investigated scientifically, involving primary and secondary data (ACSBL001, ACSBL061, ACSBL096) 📖
- modify questions and hypotheses to reflect new evidence ⚙️

## Planning Investigations

### Outcomes

**A student:**

- › designs and evaluates investigations in order to obtain primary and secondary data and information BIO11/12-2

### Content

Students:

- assess risks, consider ethical issues and select appropriate materials and technologies when designing and planning an investigation (ACSBL031, ACSBL097) 📖 🛠️
- justify and evaluate the use of variables and experimental controls to ensure that a valid procedure is developed that allows for the reliable collection of data (ACSBL002)
- evaluate and modify an investigation in response to new evidence ⚙️

## Conducting Investigations






### Outcomes

#### A student:

- › conducts investigations to collect valid and reliable primary and secondary data and information BIO11/12-3

### Content

#### Students:

- employ and evaluate safe work practices and manage risks (ACSBL031)  
- use appropriate technologies to ensure and evaluate accuracy  
- select and extract information from a wide range of reliable secondary sources and acknowledge them using an accepted referencing style 

## Processing Data and Information




### Outcomes

#### A student:

- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media BIO11/12-4

### Content

#### Students:

- select qualitative and quantitative data and information and represent them using a range of formats, digital technologies and appropriate media (ACSBL004, ACSBL007, ACSBL064, ACSBL101)  
- apply quantitative processes where appropriate 
- evaluate and improve the quality of data  

## Analysing Data and Information




### Outcomes

#### A student:

- › analyses and evaluates primary and secondary data and information BIO11/12-5

### Content

#### Students:

- derive trends, patterns and relationships in data and information
- assess error, uncertainty and limitations in data (ACSBL004, ACSBL005, ACSBL033, ACSBL099) 
- assess the relevance, accuracy, validity and reliability of primary and secondary data and suggest improvements to investigations (ACSBL005)  

## Problem Solving

### Outcomes

#### A student:

- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes BIO11/12-6

### Content

#### Students:

- use modelling (including mathematical examples) to explain phenomena, make predictions and solve problems using evidence from primary and secondary sources (ACSBL006, ACSBL010) ⚙️
- use scientific evidence and critical thinking skills to solve problems ⚙️

## Communicating

### Outcomes

#### A student:

- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose BIO11/12-7

### Content

#### Students:

- select and use suitable forms of digital, visual, written and/or oral forms of communication 🗨️ 📄
- select and apply appropriate scientific notations, nomenclature and scientific language to communicate in a variety of contexts (ACSBL008, ACSBL036, ACSBL067, ACSBL102) 🗨️ 📄
- construct evidence-based arguments and engage in peer feedback to evaluate an argument or conclusion (ACSBL034, ACSBL036) 🗨️ 📄

## Module 1: Cells as the Basis of Life

### Outcomes

#### A student:

- › conducts investigations to collect valid and reliable primary and secondary data and information BIO11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media BIO11/12-4
- › describes single cells as the basis for all life by analysing and explaining cells' ultrastructure and biochemical processes BIO11-8

### Content Focus

Cells are the basis of life. They coordinate activities to form colonial and multicellular organisms. Students examine the structure and function of organisms at both the cellular and tissue levels in order to describe how they facilitate the efficient provision and removal of materials to and from all cells in organisms. They are introduced to and investigate biochemical processes through the application of the Working Scientifically skills processes.

Students are introduced to the study of microbiology and the tools that scientists use in this field. These tools will be used throughout the course to assist in making predictions and solving problems of a multidisciplinary nature.

### Working Scientifically








In this module, students focus on conducting investigations to collect, process and analyse data and identify trends, patterns and relationships related to cell structure and function. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Cell Structure

**Inquiry question:** What distinguishes one cell from another?






Students:

- investigate different cellular structures, including but not limited to:
  - examining a variety of prokaryotic and eukaryotic cells (ACSBL032, ACSBL048) 
  - describe a range of technologies that are used to determine a cell's structure and function 
- investigate a variety of prokaryotic and eukaryotic cell structures, including but not limited to:
  - drawing scaled diagrams of a variety of cells (ACSBL035)  
  - comparing and contrasting different cell organelles and arrangements 
  - modelling the structure and function of the fluid mosaic model of the cell membrane (ACSBL045)  

## Cell Function

**Inquiry question:** How do cells coordinate activities within their internal environment and the external environment?

Students:

- investigate the way in which materials can move into and out of cells, including but not limited to:
  - conducting a practical investigation modelling diffusion and osmosis (ACSBL046) 
  - examining the roles of active transport, endocytosis and exocytosis (ACSBL046)
  - relating the exchange of materials across membranes to the surface-area-to-volume ratio, concentration gradients and characteristics of the materials being exchanged (ACSBL047) 
- investigate cell requirements, including but not limited to:
  - suitable forms of energy, including light energy and chemical energy in complex molecules (ACSBL044)
  - matter, including gases, simple nutrients and ions
  - removal of wastes (ACSBL044)
- investigate the biochemical processes of photosynthesis, cell respiration and the removal of cellular products and wastes in eukaryotic cells (ACSBL049, ACSBL050, ACSBL052, ACSBL053) 
- conduct a practical investigation to model the action of enzymes in cells (ACSBL050)
- investigate the effects of the environment on enzyme activity through the collection of primary or secondary data (ACSBL050, ACSBL051)  

## Module 2: Organisation of Living Things

### Outcomes

#### A student:

- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media BIO11/12-4
- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes BIO11/12-6
- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose BIO11/12-7
- › explains the structure and function of multicellular organisms and describes how the coordinated activities of cells, tissues and organs contribute to macroscopic processes in organisms BIO11-9

### Content Focus

Multicellular organisms typically consist of a number of interdependent transport systems that range in complexity and allow the organism to exchange nutrients, gases and wastes between the internal and external environments. Students examine the relationship between these transport systems and compare nutrient and gas requirements.

Models of transport systems and structures have been developed over time, based on evidence gathered from a variety of disciplines. The interrelatedness of these transport systems is critical in maintaining health and in solving problems related to sustainability in agriculture and ecology.

### Working Scientifically



In this module, students focus on collecting, processing and analysing data and information to: identify trends, patterns and relationships; solve problems; and communicate ideas about the organisation of living things. Students should be provided opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Organisation of Cells

**Inquiry question:** How are cells arranged in a multicellular organism?















Students:

- compare the differences between unicellular, colonial and multicellular organisms by:
  - investigating structures at the level of the cell and organelle
  - relating structure of cells and cell specialisation to function
- investigate the structure and function of tissues, organs and systems and relate those functions to cell differentiation and specialisation (ACSBL055) 
- justify the hierarchical structural organisation of organelles, cells, tissues, organs, systems and organisms (ACSBL054) 

## Nutrient and Gas Requirements

**Inquiry question:** What is the difference in nutrient and gas requirements between autotrophs and heterotrophs?







Students:

- investigate the structure of autotrophs through the examination of a variety of materials, for example: (ACSBL035) 
  - dissected plant materials (ACSBL032)
  - microscopic structures
  - using a range of imaging technologies to determine plant structure 
- investigate the function of structures in a plant, including but not limited to:
  - tracing the development and movement of the products of photosynthesis (ACSBL059, ACSBL060) 
- investigate the gas exchange structures in animals and plants (ACSBL032, ACSBL056) through the collection of primary and secondary data and information, for example:
  - microscopic structures: alveoli in mammals and leaf structure in plants  
  - macroscopic structures: respiratory systems in a range of animals  
- interpret a range of secondary-sourced information to evaluate processes, claims and conclusions that have led scientists to develop hypotheses, theories and models about the structure and function of plants, including but not limited to: (ACSBL034)   
  - photosynthesis
  - transpiration-cohesion-tension theory
- trace the digestion of foods in a mammalian digestive system, including:  
  - physical digestion
  - chemical digestion
  - absorption of nutrients, minerals and water
  - elimination of solid waste
- compare the nutrient and gas requirements of autotrophs and heterotrophs  

## Transport

**Inquiry question:** How does the composition of the transport medium change as it moves around an organism?

Students:

- investigate transport systems in animals and plants by comparing structures and components using physical and digital models, including but not limited to: (ACSBL032, ACSBL058, ACSBL059, ACSBL060)  
  - macroscopic structures in plants and animals
  - microscopic samples of blood, the cardiovascular system and plant vascular systems 
- investigate the exchange of gases between the internal and external environments of plants and animals  
- compare the structures and function of transport systems in animals and plants, including but not limited to: (ACSBL033) 
  - vascular systems in plants and animals
  - open and closed transport systems in animals
- compare the changes in the composition of the transport medium as it moves around an organism

## Module 3: Biological Diversity

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation BIO11/12-1
- › designs and evaluates investigations in order to obtain primary and secondary data and information BIO11/12-2
- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose BIO11/12-7
- › describes biological diversity by explaining the relationships between a range of organisms in terms of specialisation for selected habitats and evolution of species BIO11-10

### Content Focus

Biodiversity is important to balance the Earth's ecosystems. Biodiversity can be affected slowly or quickly over time by natural selective pressures. Human impact can also affect biodiversity over a shorter time period. In this module, students learn about the Theory of Evolution by Natural Selection and the effect of various selective pressures.

Monitoring biodiversity is key to being able to predict future change. Monitoring, including the monitoring of abiotic factors in the environment, enables ecologists to design strategies to reduce the effects of adverse biological change. Students investigate adaptations of organisms that increase the organism's ability to survive in their environment.

### Working Scientifically







In this module, students focus on: designing appropriate investigations; collecting and processing data to develop questions to test hypotheses using appropriate media; communicating their understanding. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Effects of the Environment on Organisms

**Inquiry question:** How do environmental pressures promote a change in species diversity and abundance?

Students:

- predict the effects of selection pressures on organisms in ecosystems, including: (ACSBL026, ACSBL090)  
  - biotic factors
  - abiotic factors
- investigate changes in a population of organisms due to selection pressures over time, for example: (ACSBL002, ACSBL094)    
  - cane toads in Australia
  - prickly pear distribution in Australia



## Adaptations

**Inquiry question:** How do adaptations increase the organism's ability to survive?

Students:

- conduct practical investigations, individually or in teams, or use secondary sources to examine the adaptations of organisms that increase their ability to survive in their environment, including:
  - ⚙️ 📺 ⭐
  - structural adaptations
  - physiological adaptations
  - behavioural adaptations
- investigate, through secondary sources, the observations and collection of data that were obtained by Charles Darwin to support the Theory of Evolution by Natural Selection, for example:
  - 📺 📺
  - finches of the Galapagos Islands
  - Australian flora and fauna

## Theory of Evolution by Natural Selection

**Inquiry question:** What is the relationship between evolution and biodiversity?

Students:

- explain biological diversity in terms of the Theory of Evolution by Natural Selection by examining the changes in and diversification of life since it first appeared on the Earth (ACSBL088)
- analyse how an accumulation of microevolutionary changes can drive evolutionary changes and speciation over time, for example: (ACSBL034, ACSBL093) ⚙️ 📺
  - evolution of the horse
  - evolution of the platypus
- explain, using examples, how Darwin and Wallace's Theory of Evolution by Natural Selection accounts for:
  - convergent evolution
  - divergent evolution
- explain how punctuated equilibrium is different from the gradual process of natural selection

## Evolution – the Evidence

**Inquiry question:** What is the evidence that supports the Theory of Evolution by Natural Selection?

Students:

- investigate, using secondary sources, evidence in support of Darwin and Wallace's Theory of Evolution by Natural Selection, including but not limited to: 📺 📺
  - biochemical evidence, comparative anatomy, comparative embryology and biogeography (ACSBL089) 📺 📺
  - techniques used to date fossils and the evidence produced 📺 📺
- explain modern-day examples that demonstrate evolutionary change, for example: 📺 📺
  - the cane toad
  - antibiotic-resistant strains of bacteria

## Module 4: Ecosystem Dynamics

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation BIO11/12-1
- › designs and evaluates investigations in order to obtain primary and secondary data and information BIO11/12-2
- › conducts investigations to collect valid and reliable primary and secondary data and information BIO11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media BIO11/12-4
- › analyses and evaluates primary and secondary data and information BIO11/12-5
- › analyses ecosystem dynamics and the interrelationships of organisms within the ecosystem BIO11-11

### Content Focus

The Earth's biodiversity has increased since life first appeared on the planet. The Theory of Evolution by Natural Selection can be used to explain periodic increases and decreases in populations and biodiversity. Scientific knowledge derived from the fossil record, and geological evidence has enabled scientists to offer valid explanations for this progression in terms of biotic and abiotic relationships. Students engage in the study of past ecosystems and create models of possible future ecosystems so that human impact on biodiversity can be minimised. The study of ecosystem dynamics integrates a range of data that can be used to predict environmental change into the future.

### Working Scientifically









In this module, students focus on developing questions and hypotheses when planning and conducting investigations. Students study trends, patterns and relationships in data to analyse the interrelationships within and dynamics of an ecosystem. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Population Dynamics

**Inquiry question:** What effect can one species have on the other species in a community?

Students:

- investigate and determine relationships between biotic and abiotic factors in an ecosystem, including: (ACSBL019)    
  - the impact of abiotic factors (ACSBL021, ACSBL022, ACSBL025)
  - the impact of biotic factors, including predation, competition and symbiotic relationships (ACSBL024)
  - the ecological niches occupied by species (ACSBL023)
  - predicting consequences for populations in ecosystems due to predation, competition, symbiosis and disease (ACSBL019, ACSBL020) 
  - measuring populations of organisms using sampling techniques (ACSBL003, ACSBL015) 
- explain a recent extinction event (ACSBL024)  

## Past Ecosystems

**Inquiry question:** How do selection pressures within an ecosystem influence evolutionary change?

Students:

- analyse palaeontological and geological evidence that can be used to provide evidence for past changes in ecosystems, including but not limited to: 🧩 🖥️
  - Aboriginal rock paintings 🖐️
  - rock structure and formation
  - ice core drilling
- investigate and analyse past and present technologies that have been used to determine evidence for past changes, for example: (ACSBL005)
  - radiometric dating
  - gas analysis
- analyse evidence that present-day organisms have evolved from organisms in the past by examining and interpreting a range of secondary sources to evaluate processes, claims and conclusions relating to the evolution of organisms in Australia, for example: (ACSBL005, ACSBL027) 🧩 🖥️
  - small mammals
  - sclerophyll plants
- investigate the reasons for changes in past ecosystems, by:
  - interpreting a range of secondary sources to develop an understanding of the changes in biotic and abiotic factors over short and long periods of time (ACSBL025, ACSBL026) 🖥️
  - evaluating hypotheses that account for identified trends (ACSBL001) 🧩

## Future Ecosystems

**Inquiry question:** How can human activity impact on an ecosystem?

Students:

- investigate changes in past ecosystems that may inform our approach to the management of future ecosystems, including:
  - the role of human-induced selection pressures on the extinction of species (ACSBL005, ACSBL028, ACSBL095) 🖐️ 🔄
  - models that humans can use to predict future impacts on biodiversity (ACSBL029, ACSBL071) 🖐️ 🔄 🖥️
  - the role of changing climate on ecosystems 🔄
- investigate practices used to restore damaged ecosystems, Country or Place, for example: 🖐️ 🔄
  - mining sites
  - land degradation from agricultural practices



# **Business Studies**

## The structure of Business Studies

Business Studies aims to develop knowledge, understanding, skills and values which enable students to make judgements about the performance of businesses in a dynamic business environment.

### Course Structure

<b>Preliminary Course Structure</b>		
<b>Topic</b>	<b>Indicative Hours</b>	<b>% of course time</b>
Nature of Business	24	20
Business Management	48	40
Business Planning	48	40

<b>HSC Course Structure</b>		
<b>Topic</b>	<b>Indicative Hours</b>	<b>% of course time</b>
Operations	30	25
Marketing	30	25
Finance	30	25
Human Resources	30	25

## **Performance Band Descriptors for Business Studies**

### **Band 6**

- demonstrates comprehensive knowledge and understanding of business functions and operations
- critically analyses the nature, role and structure of business
- evaluates the effectiveness of management responses to internal and external influences that affect business
- interprets and applies specific numerical data to analyse and solve business problems and predict future trends
- synthesises contemporary business issues when evaluating management responses and strategies
- clearly communicates using business terminology, concepts and comprehensive case studies in a variety of appropriate formats

### **Band 5**

- demonstrates thorough knowledge and understanding of business functions and operations
- analyses the nature, role and structure of business
- analyses management responses to internal and external influences that affect business
- interprets and applies numerical data to analyse and solve business problems and predict future trends
- applies contemporary business issues when analyzing management responses and strategies
- communicates using business terminology, concepts and comprehensive case studies in a variety of appropriate formats

### **Band 4**

- demonstrates knowledge and some understanding of business functions and operations
- explains the nature, role and structure of business
- explains management responses to internal and external influences that affect business
- interprets and applies numerical data with some analysis to solve business problems
- summarises contemporary business issues with some analysis of management responses and strategies
- communicates using business terminology, concepts and comprehensive case studies in descriptive formats

**Band 3**

- demonstrates basic understanding of business functions and operations
- describes the nature, role and structure of business
- describes management responses
- refers to numerical data when solving business problems
- displays limited analysis of contemporary business issues
- communicates using basic business terminology in simple formats

**Band 2**

- demonstrates limited understanding of business functions and operations
- demonstrates limited knowledge of the nature, role and structure of business
- identifies management responses
- uses elementary numerical data
- shows limited communication skills

## Objectives and outcomes

Objectives	Preliminary course outcomes	HSC course outcomes
<p><b>A student develops knowledge and understanding about:</b></p> <p>The nature, role and structure of business</p> <p>Internal and external influences on business</p> <p>The functions and processes of business activity</p> <p>Management strategies and their effectiveness</p>	<p><b>A student:</b></p> <p>P1 discusses the nature of business, its role in society and types of business structure</p> <p>P2 explains the internal and external influences on businesses</p> <p>P3 describes the factors contributing to the success or failure of small to medium enterprises</p> <p>P4 assesses the processes and interdependence of key business functions</p> <p>P5 examines the application of management theories and strategies</p> <p>P6 analyses the responsibilities of business to internal and external stakeholders</p>	<p><b>A student:</b></p> <p>H1 critically analyses the role of business in Australia and globally</p> <p>H2 evaluates management strategies in response to changes in internal and external influences</p> <p>H3 discusses the social and ethical responsibilities of management</p> <p>H4 analyses business functions and processes in large and global businesses</p> <p>H5 explains management strategies and their impact on businesses</p> <p>H6 evaluates the effectiveness of management in the performance of businesses</p>



## Assessment Schedule

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		Topic Test	Business Report	Formal Written Examination
		<u>Date:</u> Term 1 Week 9	<u>Date:</u> Term 2 Week 8	<u>Date:</u> Term 3 Week 9/10
		<u>Outcomes:</u> P1, P2, P6	<u>Outcomes:</u> P1, P3, P8, P9	<u>Outcomes:</u> P1-6, P9, P10
TASK WEIGHTINGS				
Knowledge & understanding of course content	40%	15%	10%	15%
Stimulus-based skills	20%	5%		15%
Inquiry & research	20%		20%	
Communication of business information, ideas & issues in appropriate forms	20%	5%	5%	10%
<b>Total</b>	<b>100%</b>	<b>25%</b>	<b>35%</b>	<b>40%</b>

### Outcomes

#### A student:

- P1 discusses the nature of business, its role in society and types of business structure
- P2 explains the internal and external influences on business
- P3 describes the factors contributing to the success or failure of small to medium enterprises
- P4 assesses the processes and interdependence of key business functions
- P5 examines the application of management theories and strategies
- P6 analyses the responsibilities of business to internal and external stakeholders
- P7 plans and conducts investigations into contemporary business issues
- P8 evaluates information for actual and hypothetical business situations
- P9 communicates business information and issues in appropriate formats
- P10 applies mathematical concepts appropriately in business situations

## Scope and Sequence

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1	<b>Unit 1: Nature of Business</b> <b>Outcomes:</b> P1, P5, P6, P7, P8, P9									
	Role of Business	Types of Business		Influences in the business environment			Business growth and decline			
Term 2	<b>Unit 2: Business Planning</b> <b>Outcomes:</b> P4, P7 P8, P9									
	Small to medium enterprises	Influences in establishing a small to medium enterprise		The business planning process			Critical issues in business success and failure			
Term 3	<b>Unit 3: Business Management</b> <b>Outcomes:</b> P1-6, P9 P10									
	Nature of management			Achieving business goals	Management approaches		Management process			

## Syllabus Topic 1

### Nature of business

The focus of this topic is the role and nature of business in a changing business environment.

## Outcomes

The student:

P1	Discusses the nature of business, its role in society and types of business structure
P2	Explains the internal and external influences on businesses
P6	Analyses the responsibilities of business to internal and external stakeholders
P7	Plans and conducts investigations into contemporary business issues
P8	Evaluates information for actual and hypothetical business situations

## Content

### Students learn to:

*Examine contemporary business issues to:*

- Discuss the global expansion of one Australian business
- Discuss the expansion into Australia of one global business
- Explain how changes in external influences have contributed to the growth of the tertiary, quaternary and quinary industries in Australia
- Identify problems that arise for stakeholders when companies go into liquidation

*Investigate aspects of business using hypothetical situations and actual business case studies to:*

- Distinguish between the different types of businesses
- Identify actual businesses at different stages in the business life cycle
- Outline possible business strategies appropriate for different stages in the business life cycle

### Students learn about:

*Role of business*

- The nature of a business
  - Producing goods and services
  - Profit, employment, incomes, choice, innovation, entrepreneurship and risk, wealth and quality of life

*Types of businesses*

- Classification of business
  - Size – small to medium enterprises (SMEs), large
  - Local, national, global
  - Industry – primary, secondary, tertiary, quaternary, quinary

- Legal structure – sole trader, partnership, private company, public company, government enterprise
- Factors influencing choice of legal structure
  - Size, ownership, finance

#### *Influences in the business environment*

- External influences – economic, financial, geographic, social, legal, political, institutional, technological, competitive situation, markets
- Internal influences – products, location, resources, management and business culture
- Stakeholders

#### *Business growth and decline*

- Stages of the business life cycle
  - Establishment
  - Growth
  - Maturity
  - Post-maturity
- Responding to challenges at each stage of the business life cycle
- Factors that can contribute to business decline
- Voluntary and involuntary cessation – liquidation



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Business Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Nature of Business
<b>Date Issued:</b>	Term 1 Week 7
<b>Date and Time Due:</b>	Term 1 Week 9
<b>Weighting:</b>	25%
<b>Class Time Allocated:</b>	Students complete a topic test under exam conditions during an allocated period during Week 9.
<b>Presentation and Submission Guidelines:</b>	The task is broken into two sections testing students on their knowledge on the topic The Nature of Business. Section 1 will be worth 10 marks and Section 2 worth 30 marks. Students are to complete their responses in the spaces provided.
<b>Marking Process:</b>	The task will be marked by the classroom teacher.

**Outcomes Assessed:**

<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	Discusses the nature of business, its role in society and types of business structure
P5	Examines the application of management theories and strategies
P6	Analyses the responsibility of business to internal and external stakeholders
P7	Plans and conducts investigations into temporary business issues
P8	Evaluates information for actual and hypothetical business situations
P9	Communicates business information and issues in appropriate forms

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  
*Participants Signature:* \_\_\_\_\_

## Syllabus: Topic 2

### Business Management

The focus of this topic is the nature and responsibilities of management in the business environment.

## Outcomes

The student:

P2	Explains the internal and external influences on businesses
P4	Assesses the processes and interdependence of key business functions
P5	Examines the application of management theories and strategies
P6	Analyses the responsibilities of business to internal and external stakeholders
P7	Plans and conducts investigations into contemporary business issues
P8	Evaluates information for actual and hypothetical business situations
P9	Communicates business information and issues in appropriate formats
P10	Applies mathematical concepts appropriately in business situations

## Content

Students learn to:

*Examine contemporary business issues to:*

- Discuss strategies that could reconcile the conflicting interests of stakeholders
- Compare and contrast approaches to management
- Explain the benefits of quality management practices

*Investigate aspects of business using hypothetical situations and actual business case studies to:*

- Identify the qualities of managers who have exhibited high personal and ethical standards
- Analyse different ways of coordinating key business functions for an SME
- Examine effective cash flow management
- Assess the role of the income statement and the balance sheet when describing the financial performance of a business
- Explain how SMEs manage change effectively

Students learn about:

*Nature of management*

- Features of effective management
- Skills of management
  - Interpersonal, communication, strategic thinking, vision, problem-solving, decision-making, flexibility, adaptability to change, reconciling the conflicting interests of stakeholders
- Achieving business goals
  - profits, market share, growth, share price, social, environmental
  - achieving a mix of the above goals
  - staff involvement – innovation, motivation, mentoring, training

## Management approaches

- Classical approach
  - Management as planning, organising and controlling
  - Hierarchical organisational structure
  - Autocratic leadership style
- Behavioural approach
  - Management as leading, motivating, communicating
  - Teams
  - Participative/democratic leadership style
- Contingency approach
  - Adapting to changing circumstances

## Management process

- Coordinating key business functions and resources
- Operations
  - Goods and/or services
  - The production process
  - Quality management
- Marketing
  - Identification of the target market
  - Marketing mix
- Finance
  - Cash flow statement
  - Income statement
  - Balance sheet
- Human resources
  - Recruitment
  - Training
  - Employment contracts
  - Separation – voluntary/involuntary
- Ethical business behaviour

## Management and change

- Responding to internal and external influences
- Managing change effectively
  - Identifying the need for change
    - o business information systems
  - Setting achievable goals
  - Resistance to change
  - Management consultants



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Business Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Business Report
<b>Date Issued:</b>	Term 2 Week 5
<b>Date and Time Due:</b>	Term 2 Week 8
<b>Weighting:</b>	35%
<b>Class Time Allocated:</b>	Completed in allocated lessons in class
<b>Presentation and Submission Guidelines:</b>	Using the provided stimulus create a business report that explores the theoretical elements of Business Marketing
<b>Marking Process:</b>	Marked by classroom teacher using the provided criteria

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P4	Assesses the processes and interdependence of key business functions
P8	Evaluates information for actual and hypothetical business situations, examines the management theories and strategies
P9	Communicates business information and issues in appropriate formats
P10	Applies mathematical concepts appropriately in business situations

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____



## Task Description:

### Business Situation:

Mia Grace owns Grace Realty, a real estate business operating since 2001. She employs 5 full-time staff and 7 casual staff. Grace Realty opens 6 days per week. Despite real estate value increasing, the business has experienced a decline in market share, due to new competitors. Mia is considering an offer to merge with another real estate, to increase market share. However, the other real estate operates different systems, opens 7 days per week and has a different workplace culture.

*Assume that you have been hired by Grace Realty as a business consultant.*

Write a report that addresses EACH of the following:

- Explain TWO skills of management needed by Mia Grace to support the proposed merger.
- Recommend a management approach that would help the staff resist change.
- Outline strategies to manage change effectively.

The expected length of the response is *approximately* 800 words or six written pages.

## Success Criteria:

You will be assessed on how well you:

- use your knowledge and the information provided
- communicate using relevant business terminology
- present a logical, well structured answer to the question in the form of a business report

Marking Criteria	Marks
<ul style="list-style-type: none"> <li>• Thoroughly explain how and/or why TWO skills of management can support the business.</li> <li>• Accurately gives reasoning for a management approach and, clearly identifies how it will support the business.</li> <li>• Provides detailed reasons in favour of strategies used to manage change effectively.</li> <li>• Makes effective use of the information provided, demonstrating extensive knowledge and understanding relevant to the question.</li> <li>• Presents a sustained, logical, and cohesive business report integrating relevant business terminology and concepts.</li> </ul>	<b>17–20</b>
<ul style="list-style-type: none"> <li>• Explains how and/or why TWO skills of management can support the business.</li> <li>• Provides a management approach and identifies how it will support the business.</li> <li>• Provides characteristics and features of reasons in favour of strategies used to manage change effectively.</li> <li>• Makes some use of the information provided, demonstrating some knowledge, and understanding relevant to the question.</li> <li>• Presents a logical and cohesive business report using relevant business terminology and concepts</li> </ul>	<b>13–16</b>
<ul style="list-style-type: none"> <li>• Sketches in general terms TWO skills of management</li> <li>• Outlines a management approach and its features/function.</li> <li>• Provides characteristics and features of strategies used to manage change.</li> <li>• Includes features of a business report and uses some business terminology and concepts</li> </ul>	<b>9–12</b>
<ul style="list-style-type: none"> <li>• Sketches in general terms ONE skills of management and states another.</li> <li>• Sketches in general terms a management approach.</li> <li>• Sketches in general terms strategy/strategies to manage change.</li> <li>• May include some features of a business report and uses basic business terminology</li> </ul>	<b>5–8</b>
<ul style="list-style-type: none"> <li>• Refers to influence/s and/or skills of management and/or management approaches.</li> <li>• Uses basic business terminology</li> </ul>	<b>1–4</b>

Feedback:	
<b>Medals</b>	<b>Missions</b>
•	•

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	

## Syllabus Topic 3

### Business Planning

The focus of this topic is the processes of establishing and planning a small to medium enterprise.

### Outcomes

The student:

P1	Discusses the nature of business, its role in society and types of business structure
P3	Describes the factors contributing to the success or failure of small to medium enterprises
P4	Assesses the processes and interdependence of key business functions
P6	Analyses the responsibilities of business to internal and external stakeholders
P7	Plans and conducts investigations into contemporary business issues
P8	Evaluates information for actual and hypothetical business situations
P9	Communicates business information and issues in appropriate formats
P10	Applies mathematical concepts appropriately in business situations

### Content

#### Students learn to:

*Examine contemporary business issues to:*

- Discuss the influence of government on SMEs
- Assess the effect of two changes in the business environment on SMEs

*Investigate aspects of business using hypothetical situations and actual business case studies to:*

- Explain how the business plan is determined in at least one SME
- Explain how SMEs can enter the global market for long-term growth
- Identify ways that SMEs gain a competitive advantage

*Prepare a small business plan:*

- Based on a hypothetical or actual business
- Presented in a business plan/report format

#### Students learn to:

*Small to medium enterprises*

- Definition
- Role
- Economic contribution
- Success and/or failure

*Influences in establishing a small to medium enterprise*

- Personal qualities – qualifications, skills, motivation, entrepreneurship, cultural background, gender
- Sources of information
- The business idea – competition
- Establishment options – new, existing, franchise

- Market – goods and/or services, price, location
- Finance – source, cost
- Legal – business name, zoning, health and other regulations
- Human resources
  - Skills
  - Costs – wage and non-wage
- Taxation – federal and state taxes, local rates and charges

*The business planning process*

- Sources of planning ideas
  - Situational analysis
- Vision, goals and/or objectives
  - Vision
  - Business goals
  - Long-term growth
- Organising resources
  - Operations
  - Marketing
  - Finance –
  - Human resources
- Forecasting
  - Total revenue, total cost
  - Break-even analysis
  - Cash flow projections
- Monitoring and evaluations
  - Sales
  - Budgets
  - Profit
- Taking corrective action

*Critical issues in business success and failure*

- Importance of a business plan
- Management – staffing and teams
- Trend analysis
- Identifying and sustaining competitive advantage
- Avoiding over-extension of finance and other resources
- Using technology
- Economic conditions



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Business Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Business Studies Preliminary Examination
<b>Date Issued:</b>	Term 3 Week 7
<b>Date and Time Due:</b>	Term 3 Week 9/10
<b>Weighting:</b>	35%
<b>Class Time Allocated:</b>	2 hours (120 minutes)
<b>Presentation and Submission Guidelines:</b>	
<b>Marking Process:</b>	

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	Discusses the nature of business, its role
P3	Describes the factors contributing to the success or failure of small to medium enterprises
P4	Assesses the processes and interdependence of key business functions
P5	Examines the application of management theories and strategies
P6	Analyses the responsibilities of business to internal and external stakeholders
P8	Evaluates information for actual and hypothetical business situations
P9	Communicates business information and issues in appropriate formats
P10	Applies mathematical concepts appropriately in business situations

**Participant Declaration:**

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*Participants Signature:* \_\_\_\_\_



**Community  
& Family  
Studies**

# Community and Family Studies

Syllabus Outcomes	Syllabus Component Weight	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		Interview	Group Observation	Formal Written Examination
		<u>Date:</u>	<u>Date:</u>	<u>Date:</u>
		Term 1 Week 9	Term 2 Week 8	Term 3 Week 9/10
<u>Outcomes:</u>	<u>Outcomes:</u>	<u>Outcomes:</u>	<b>TASK WEIGHTINGS</b>	
P1.1, P1.2, P4.1 P4.2, P5.1 P6.1	P1.2, P2.1, P2.3, P4.1, P4.2, P6.2	P1.1-P6.2		
Knowledge and understanding of course content	40%	10%	10%	20%
Skills in critical thinking, research methodology, analysing and communicating	60%	20%	20%	20%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Outcomes

### **A student:**

- PI.1 describes the contribution an individual's experiences, values, attitudes and beliefs make to the development of goals
- PI.2 proposes effective solutions to resource problems
- P2.1 accounts for the roles and relationships that individuals adopt within groups
- P2.2 describes the role of the family and other groups in the socialisation of individuals
- P2.3 examines the role of leadership and group dynamics in contributing to positive
- P2.4 analyses the inter-relationships between internal and external factors and their impact on family functioning
- P3.1 explains the changing nature of families and communities in contemporary society
- P3.2 analyses the significance of gender in defining roles and relationships
- P4.1 utilises research methodology appropriate to the study of social issues
- P4.2 presents information in written oral and graphic form
- P5.1 applies management processes to maximise the efficient use of resources
- P6.1 distinguishes those actions that enhance wellbeing
- P6.2 uses critical thinking skills to enhance decision-making
- P7.1 appreciates differences among individuals, groups and families within communities and values their contribution to society
- P7.2 develops a sense of responsibility for the wellbeing of themselves and others
- P7.3 appreciates the value of resource management in response to change
- P7.4 values the placement of management in coping with a variety of role expectations



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Community and Family Studies
<b>Teacher:</b>	Hirst
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Interview
<b>Date Issued:</b>	Term 1 Week 3 Friday
<b>Date and Time Due:</b>	Term 1 Week 9 Friday
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	One period to explain assessment task and examine sample responses.
<b>Presentation and Submission Guidelines:</b>	Size 12 Calibri font 1.5 spacing Submission via Google Classroom on Friday March 25 by 3:20pm
<b>Marking Process:</b>	Classroom Teacher will mark according to marking criteria

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1.1	describes the contribution an individual's experiences, values, attitudes, and beliefs make to the development of goals
P1.2	proposes effective solutions to resource problems
P4.1	utilises research methodology appropriate to the study of social issues
P4.2	presents information in written, oral and graphic form
P5.1	applies management processes to maximise the efficient use of resources
P6.1	distinguishes those actions that enhance wellbeing

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>



### Task Description:

You are to report on the goals, resources and resource management of an individual who has gained professional status in their career path and how these have contributed.

- Select an individual who works within a profession of interest (e.g., A doctor, teacher, sportsperson etc)
- Prepare a set of interview questions for the interviewee. These questions must be designed to gather data about the individual's goals to get where they are, resources utilised and their resource management. No less than 10 questions.
- Arrange and conduct the interview with the person you have chosen. The interview should be no less than 5 minutes duration.
- Type up a transcript of the interview questions and responses (*add in extra questions asked*)

In your report you must include:

- a) Basic information about the interviewee. This can include profession, how long they have been in that field, age (their name can be kept confidential).
- b) Written transcript of the interview with all questions used and responses collected
- c) **Explain** which interview process was used and why
- d) **Explain** how goal setting has played a part in meeting the needs to achieve their position
- e) **Describe** the range of human and non-human resources they utilised to achieve their success
- f) **Describe** how access to formal and informal support has contributed to their success
- g) **Assess the extent to** which personal management skills contributed to their success

You will be shown a range of sample responses to illustrate what is expected and required for this task.

### Success Criteria:

I will be successful if I can:

- design an interview to investigate how accessing support can contribute to effective resource management
- reflect upon planning decisions and how they have impacted on data collection in my report
- structure a response effectively according to the verb
- submit a draft no later than 4 days before due date to obtain feedback for improvement

### **Marking Criteria**

- a) Basic information about the interviewee. This can include profession, how long they have been in that field, age (their name can be kept confidential).

<b>Criteria</b>	<b>Mark</b>
-Profession, years of experience and age included in the report	2
-Profession, OR years of experience OR age included in the report	1
-No information included	0
Mark Awarded	

- b) Written transcript of the interview with all questions used and responses collected

<b>Criteria</b>	<b>Mark</b>
-Written transcript is included and has at least 10 questions	2
-Written transcript included	1
-Transcript not included	0
Mark Awarded	

- c) Explain which interview process was used and why it was the best to utilise (structured/unstructured with open/closed questions)

<b>Criteria</b>	<b>Mark</b>
-Demonstrate extensive knowledge about the interview process -In detail, provide why the chosen interview process was best to utilise -Provides relevant examples	5
-Demonstrate knowledge about the interview process -Provide why the chosen interview process was best to utilise -Provides examples	3-4
-Provides some information about the interview process used and why it may have been best	2
-Provides some relevant information	1
Mark Awarded	

d) Explain how goal setting has played a part in meeting the needs to achieve their position

Criteria	Mark
-Demonstrates knowledge about goal setting and needs -Extensively relates cause and effect between goal setting and meetings the needs of a position - Provides relevant examples	5
-Demonstrates knowledge about goal setting and needs -Relates cause and effect between goal setting and meetings the needs of a position - Provides examples	3-4
-Provides some information about goal setting and/or the needs required	2
-Provides some relevant information	1
Mark Awarded	

e) Describe the range of human and non-human resources they utilised to achieve their success

Criteria	Mark
-Provide characteristics and features of a range of human and non-human resources utilised	3
-Provide some characteristics of a range of human and non-human resources utilised	2
-Provides some relevant information	1
Mark Awarded	

f) Describe how access to formal and informal support has contributed to their success

Criteria	Mark
-Provide characteristics and features of how formal and informal support contributed to their success	3
-Provide some characteristics of how formal and informal support contributed to their success	2
-Provides some relevant information	1
Mark Awarded	

g) Assess the extent to which personal management skills contributed to their success

Criteria	Mark
-Demonstrates extensive knowledge and understanding of personal management skills -Provides a clear link and valid judgement about the effect of the skills towards the participants success	8
-Demonstrates knowledge and understanding of personal management skills -Provides a link and makes a judgement about the effect of the skills towards the participants success	6-7
-Provides information on personal management skills -Provides a link to the participants success	4-5
-Provides some information on personal management skills and/or their contribution to success	2-3
-Provides some relevant information	1
Mark Awarded	



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Community and Family Studies
<b>Teacher:</b>	Hirst
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Observation
<b>Date Issued:</b>	Term 2 Week 4 Monday
<b>Date and Time Due:</b>	Term 2 Week 9 Friday
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	One period to explain assessment task and examine sample responses.
<b>Presentation and Submission Guidelines:</b>	Size 12 Calibri font 1.5 spacing Submission via Google Classroom on Friday 24 <sup>th</sup> June by 3:20pm
<b>Marking Process:</b>	Classroom Teacher will mark according to marking criteria

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P2.1	accounts for the roles and relationships that individuals adopt within groups
P2.3	examines the role of leadership and group dynamics in contributing to positive interpersonal relationships and achievement
P1.2	utilises research methodology appropriate to the study of social issues
P4.2	presents information in written, oral and graphic form
P6.2	uses critical thinking skills to enhance decision making

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>

### Task Description:

You are to complete an observation of a group of people interacting. The duration of the observation must be at least 10 minutes and must **NOT** include a group of people you know personally. You may use videos of group meetings if you wish to. Some examples of meetings you could observe:

- Council meetings
- P and C Meetings
- Reality TV
- Parliament meetings

You are to check with your teacher to ensure your chosen group is acceptable

You are to submit all observation notes and details about the setting of your observation (date, time, people/group involved, major issue/s discussed, web address – if applicable)

### Your report must include:

1. Provide a copy of your observation notes. 3
2. **Describe** the type of group in your observation. 3
3. **Identify** and **describe** the different roles group members take on in your observation. 4
4. **Explain** how these roles influence the group's progress, with examples from your observation. 7
5. **Evaluate** the impact of power bases seen in your observation. 8
6. **Identify** any causes of conflict within the group and **analyse** the impact this has on the group. 7

### Success Criteria:

I will be successful if I can:

- Observe closely the interactions and roles people play in group situations
- structure a response effectively according to the verb
- submit a draft no later than 4 days before due date to obtain feedback for improvement

## Marking Criteria

<b>Question 1: Provide a copy of your observation notes</b>	
<b>Marking Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Provides comprehensive observation notes (Date, time, people/group involved, major issue/s discussed, web address – if applicable are all included)</li></ul>	3
<ul style="list-style-type: none"><li>Provides observation notes (Covers most information such as_date, time, people/group involved, major issue/s discussed, web address – if applicable)</li></ul>	2
<ul style="list-style-type: none"><li>Provides limited observation notes</li></ul>	1
<ul style="list-style-type: none"><li>No attempt</li></ul>	0

<b>Question 2: Describe the type of group in your observation</b>	
<b>Marking Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Provides characteristics and features of the chosen group in detail</li><li>Provides relevant examples</li><li>Communicates ideas in an organised manner using relevant terminology</li></ul>	3
<ul style="list-style-type: none"><li>Sketches in general terms features of the chosen group</li><li>Provides examples</li><li>Communicates ideas in an organised manner using some relevant terminology</li></ul>	2
<ul style="list-style-type: none"><li>Identifies some aspects of your group</li></ul>	1
<ul style="list-style-type: none"><li>No attempt</li></ul>	0

<b>Question 3: Identify and describe the different roles group members take on in your observation</b>	
<b>Marking Criteria</b>	<b>Marks</b>

<ul style="list-style-type: none"> <li>• Names and recognises the different roles in groups</li> <li>• Provide characteristics and features of the different roles found within the chosen group</li> <li>• Provides relevant examples</li> <li>• Communicates ideas in an organised manner using relevant terminology</li> </ul>	4 – 3
<ul style="list-style-type: none"> <li>• Sketches in general terms features of the different roles found within the chosen</li> <li>• Provides examples</li> <li>• Communicates ideas in an organised manner using some relevant terminology</li> </ul>	2
<ul style="list-style-type: none"> <li>• Identifies some aspects of the roles within the group</li> </ul>	1
<ul style="list-style-type: none"> <li>• No attempt</li> </ul>	0

<b>Question 4: Explain how these roles influence the groups progress, with examples from your observation</b>	
<b>Marking Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Make the relationships between the observed roles and the groups progress evident with examples and a high amount of detail</li> <li>• Presents a logical and cohesive answer</li> </ul>	7
<ul style="list-style-type: none"> <li>• Make the relationships between the observed roles and the groups progress evident</li> <li>• Provides examples</li> <li>• Presents a logical and cohesive answer</li> </ul>	6 – 5
<ul style="list-style-type: none"> <li>• Provides characteristics and features of the groups progress</li> <li>• Provides examples</li> </ul>	4 – 3
<ul style="list-style-type: none"> <li>• Recognises or sketches some roles with some mention of the groups progress</li> </ul>	2 – 1
<ul style="list-style-type: none"> <li>• No attempt</li> </ul>	0

**Question 5: Evaluate the impact of power bases seen in your observation.**



Marking Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and understanding of power bases</li> <li>• Makes a clear judgement of the impact of power bases</li> <li>• Communicates ideas and information using a wide range of relevant examples</li> <li>• Presents a logical and cohesive response using appropriate terminology.</li> </ul>	8 – 7
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge of power bases</li> <li>• Explains the positive and/or negative impacts of power bases</li> <li>• Communicates ideas and information using a range of relevant examples</li> <li>• Presents a logical and cohesive response using appropriate terminology.</li> </ul>	5 – 6
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge of power bases</li> <li>• Sketches some influences of power bases</li> <li>• Communicates ideas and information using a relevant example</li> <li>• Presents a logical and cohesive response using appropriate terminology</li> </ul>	3 – 4
<ul style="list-style-type: none"> <li>• Sketches knowledge of power bases in general terms</li> <li>• May provided a relevant example</li> </ul>	1 – 2
<ul style="list-style-type: none"> <li>• No attempt</li> </ul>	0

**Question 6: Identify any causes of conflict within the group and analyse the impact this has on the group.**

Marking Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding of the causes of conflict</li> <li>• Draws out the implications of conflict on the group dynamics</li> <li>• Communicates ideas and information using a wide range of relevant examples</li> <li>• Presents a logical and cohesive response using appropriate terminology</li> </ul>	7
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and understanding of the causes of conflict</li> <li>• Attempts to draw out the implications of conflict on the group dynamics</li> <li>• Communicates ideas and information using a range of relevant examples</li> <li>• Presents a logical and cohesive response using appropriate terminology</li> </ul>	5 – 6
<ul style="list-style-type: none"> <li>• Describes causes of conflict</li> <li>• Refers to some implications</li> </ul>	3 – 4
<ul style="list-style-type: none"> <li>• Provides some information about causes of conflict</li> </ul>	1 – 2
<ul style="list-style-type: none"> <li>• No attempt</li> </ul>	0

# 8 Content: Community and Family Studies

## Stage 6 Preliminary course

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### 8.1 Preliminary core: Resource Management

This module should occupy approximately 20 percent of total course time.

This module emphasises the fundamental importance of the skill of resource management, which is the use of resources to satisfy needs in order to achieve wellbeing. The concepts of wellbeing, needs and wants, resources, values, goal setting, communication, decision making and personal management explored in this module form the basis of study throughout the course.

Students apply the knowledge, understanding and skills developed in this module, to practical situations in a variety of personal, family and community contexts.

This module provides introductory research experience in the design and conduct of an interview.

#### Module focus

- Fundamental concepts of resource management
- Influences on resource management
- Effective resource management

#### Outcomes

A student:

- P1.1 describes the contribution an individual's experiences, values, attitudes and beliefs make to the development of goals
- P1.2 proposes effective solutions to resource problems
- P3.2 analyses the significance of gender in defining roles and relationships
- P4.1 utilises research methodology appropriate to the study of social issues
- P4.2 presents information in written, oral and graphic form
- P5.1 applies management processes to maximise the efficient use of resources
- P6.1 distinguishes those actions that enhance wellbeing.

Students learn about:	Students learn to:
<p><b>fundamental concepts of resource management</b></p> <p>wellbeing</p> <ul style="list-style-type: none"> <li>▪ defining wellbeing</li> <li>▪ factors affecting wellbeing <ul style="list-style-type: none"> <li>– emotional</li> <li>– economic</li> <li>– cultural</li> <li>– physical</li> <li>– spiritual</li> <li>– social</li> </ul> </li> <li>▪ individual and group wellbeing</li> </ul> <p><i>needs and wants</i></p> <ul style="list-style-type: none"> <li>▪ defining needs and wants</li> <li>▪ specific needs <ul style="list-style-type: none"> <li>– adequate standard of living (food, clothing, shelter)</li> <li>– health</li> <li>– education</li> <li>– employment</li> <li>– safety and security</li> <li>– sense of identity</li> </ul> </li> <li>▪ Maslow’s hierarchy</li> <li>▪ satisfaction of needs and wants <ul style="list-style-type: none"> <li>– goal setting</li> <li>– enhancing wellbeing</li> </ul> </li> </ul> <p><i>resources</i></p> <ul style="list-style-type: none"> <li>▪ defining resources</li> <li>▪ specific resources <ul style="list-style-type: none"> <li>– human, eg energy, knowledge, intelligence, sight, language, skills and abilities, motivation</li> <li>– non-human, eg food, clothing, money, electricity, shelter</li> </ul> </li> <li>▪ interchangeability of resources</li> <li>▪ resource sustainability (to conserve a resource)</li> </ul>	<ul style="list-style-type: none"> <li>▪ explore the concept of wellbeing by considering the following questions: <ul style="list-style-type: none"> <li>– what is the opposite to wellbeing?</li> <li>– how do people describe wellbeing?</li> <li>– why might there be different understandings of wellbeing?</li> </ul> </li> <li>▪ analyse the relationship between the factors and explain how they can impact on wellbeing</li> <li>▪ discuss the effect that their own wellbeing can have on the wellbeing of the groups to which they belong</li> <li>▪ describe each of the specific needs and compare the significance of each to different individuals</li> <li>▪ critique Maslow’s hierarchy and debate its relevance and validity after considering contemporary views on human needs</li> <li>▪ outline a specific need that is significant to them and explain how goal setting can contribute to the satisfaction of that need</li> <li>▪ describe a range of resources and explain how they assist in satisfying specific needs</li> <li>▪ propose how resources could be interchanged to enhance wellbeing in a variety of situations</li> <li>▪ outline strategies individuals use to conserve human and non-human resources</li> </ul>

Students learn about:	Students learn to:
<p><b>influences on resource management</b> <i>factors affecting resource management</i></p> <ul style="list-style-type: none"> <li>▪ personal values and past experiences</li> <li>▪ factors influencing availability of and access to resources, eg age, gender, disability, culture, socioeconomic status</li> <li>▪ access to support <ul style="list-style-type: none"> <li>– informal, eg relatives, friends, neighbours</li> <li>– formal, eg government agencies, community organisations</li> </ul> </li> </ul> <p><i>personal management skills</i></p> <ul style="list-style-type: none"> <li>▪ planning and organisation</li> <li>▪ communication <ul style="list-style-type: none"> <li>– verbal and non-verbal</li> <li>– assertive, aggressive, passive</li> <li>– characteristics of effective communication</li> </ul> </li> <li>▪ decision making <ul style="list-style-type: none"> <li>– decision-making styles – impulsive, intuitive, hesitant, confident, rational</li> <li>– factors influencing decision making</li> </ul> </li> <li>▪ problem solving</li> </ul> <p><b>effective resource management</b> <i>strategies for effective resource management</i></p> <ul style="list-style-type: none"> <li>▪ using interchangeable resources</li> <li>▪ adopting sustainable behaviours</li> <li>▪ accessing support</li> <li>▪ developing personal management skills</li> <li>▪ engaging in education or training</li> </ul> <p><i>interviews as a primary research method</i></p> <ul style="list-style-type: none"> <li>▪ constructing, conducting, recording responses <ul style="list-style-type: none"> <li>– structured and unstructured</li> </ul> </li> <li>▪ advantages and disadvantages</li> <li>▪ analysing research results</li> </ul>	<ul style="list-style-type: none"> <li>▪ explain how a combination of factors can influence resource management for a range of individuals, including: <ul style="list-style-type: none"> <li>– a person with a disability</li> <li>– a person who is homeless</li> <li>– a 16-year-old male</li> <li>– a retired aged person</li> </ul> </li> <li>▪ describe how access to support can contribute to the satisfaction of specific needs in a range of situations</li> <li>▪ assess the extent to which personal management skills can influence resource management</li> <li>▪ use scenarios to apply and refine their personal management skills to relevant and contemporary challenges</li> <li>▪ identify and challenge gender expectations in regard to personal management skills</li> <li>▪ propose and evaluate strategies individuals can adopt to effectively manage their resources in a range of life contexts, eg caring for a family member, completing the HSC, seeking employment</li> <li>▪ use interviews as a research method by: <ul style="list-style-type: none"> <li>– designing an interview to investigate how accessing support can contribute to effective resource management</li> <li>– conducting interviews and recording responses</li> <li>– analysing the data to determine the extent to which accessing support assists individuals to manage their resources effectively</li> </ul> </li> </ul>

## 8.2 Preliminary core: Individuals and Groups

This module should occupy approximately 40 percent of total course time.

This module explores the role that individuals and groups play in meeting the specific needs of individuals, families and communities. Students explore the importance of building positive interpersonal relationships in order to promote a sense of belonging among individuals, families and social groups.

This Preliminary module also provides students with the opportunity to examine the nature of groups and why they form. Students explore the various roles individuals adopt within groups in order to establish an environment where goal achievement is enhanced and the wellbeing of individuals and groups is promoted. In doing so, they examine power bases and the nature of leadership and explore their significance as a determinant of group effectiveness.

This module provides opportunity for introductory research experience, including conducting observations and case studies.

### Module focus

- Groups in the community
- Roles individuals adopt within groups
- Power within groups
- Conflict within groups

### Outcomes

A student:

P1.2 proposes effective solutions to resource problems

P2.1 accounts for the roles and relationships that individuals adopt within groups

P2.3 examines the role of leadership and group dynamics in contributing to positive interpersonal relationships and achievement

P3.2 analyses the significance of gender in defining roles and relationships

P4.1 utilises research methodology appropriate to the study of social issues

P4.2 presents information in written, oral and graphic form

P6.2 uses critical thinking skills to enhance decision making.

Students learn about:	Students learn to:
<p><b>groups in the community</b> <i>types of groups</i></p> <ul style="list-style-type: none"> <li>▪ family and friendship groups</li> <li>▪ sporting and leisure groups</li> <li>▪ study and work groups</li> <li>▪ religious groups</li> <li>▪ cultural groups</li> <li>▪ other specific groups within the community</li> </ul> <p><i>reasons for group formation</i></p> <ul style="list-style-type: none"> <li>▪ locality/geography</li> <li>▪ gender</li> <li>▪ shared interest/common goal</li> <li>▪ security</li> <li>▪ sexuality</li> <li>▪ specific need</li> <li>▪ social interaction</li> <li>▪ culture</li> <li>▪ religion</li> <li>▪ other</li> </ul> <p><b>roles individuals adopt within groups</b> <i>specific roles of individuals</i></p> <ul style="list-style-type: none"> <li>▪ the specific roles adopted by individuals in groups <ul style="list-style-type: none"> <li>– to ensure tasks are achieved</li> <li>– to maintain/build relationships</li> <li>– to influence the group’s progress</li> </ul> </li> <li>▪ norms, conformity, and cohesiveness within and among groups</li> </ul> <p><i>factors that contribute to the role they adopt within groups</i></p> <ul style="list-style-type: none"> <li>▪ personal factors <ul style="list-style-type: none"> <li>– self-esteem</li> <li>– self-confidence</li> <li>– sense of belonging</li> <li>– education</li> <li>– heredity</li> <li>– previous experience</li> <li>– culture</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ explore various types of groups in the community and explain why each group has formed</li> </ul> <ul style="list-style-type: none"> <li>▪ critically examine groups to which they belong by: <ul style="list-style-type: none"> <li>– identifying the type of group</li> <li>– explaining why each group formed</li> <li>– justifying why they belong to each group</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>▪ compare the specific roles various individuals adopt within a range of school and community groups</li> <li>▪ determine the specific roles they adopt in the groups to which they belong and propose how and why their roles may vary</li> <li>▪ explore how individuals can influence a group’s progress and discuss the impact this can have on group cohesiveness</li> </ul> <ul style="list-style-type: none"> <li>▪ assess the extent to which personal factors impact on the role they adopt within groups</li> </ul>

Students learn about:	Students learn to:
<ul style="list-style-type: none"> <li>▪ social factors <ul style="list-style-type: none"> <li>— relationship with group members</li> <li>— attitudes of group members, eg peer acceptance</li> <li>— gender expectations</li> <li>— media</li> </ul> </li> </ul> <p><i>observation as a primary research method</i></p> <ul style="list-style-type: none"> <li>▪ conducting and recording observations</li> <li>▪ advantages and disadvantages</li> <li>▪ presenting research findings</li> </ul> <p><b>power within groups</b></p> <p><i>power bases</i></p> <ul style="list-style-type: none"> <li>▪ legitimate</li> <li>▪ reward</li> <li>▪ coercive</li> <li>▪ referent</li> <li>▪ expert</li> </ul> <p><i>leadership</i></p> <ul style="list-style-type: none"> <li>▪ self-leadership</li> <li>▪ leadership styles, eg autocratic, democratic, laissez faire, transformational</li> <li>▪ leadership adaptability and flexibility</li> </ul> <p><i>factors influencing leadership</i></p> <ul style="list-style-type: none"> <li>▪ type of task</li> <li>▪ knowledge and skills within the group</li> <li>▪ attitudes of individuals within the group</li> <li>▪ relationship between group members</li> </ul> <p><b>conflict within groups</b></p> <p><i>case study as a secondary research method</i></p> <ul style="list-style-type: none"> <li>▪ collecting and recording data</li> <li>▪ advantages and disadvantages</li> </ul> <p><i>causes of conflict</i></p> <ul style="list-style-type: none"> <li>▪ incompatible goals</li> <li>▪ individual differences/personality</li> <li>▪ limited resources</li> <li>▪ ineffective communication</li> <li>▪ varying values</li> <li>▪ multiple role expectations</li> </ul>	<ul style="list-style-type: none"> <li>▪ explain how social factors contribute to an individual's sense of belonging within a group</li> <li>▪ critically examine the impact of gender expectations on the specific roles individuals adopt within groups</li> </ul> <ul style="list-style-type: none"> <li>▪ observe the specific roles various individuals adopt within groups, and present research findings</li> </ul> <ul style="list-style-type: none"> <li>▪ evaluate the impact of power bases used by individuals in a range of groups</li> </ul> <ul style="list-style-type: none"> <li>▪ assess the role of self-leadership in contributing to positive interpersonal relationships and task achievement</li> <li>▪ compare styles of leadership and assess the effectiveness of each in a variety of situations, eg small workplace, committee</li> </ul> <ul style="list-style-type: none"> <li>▪ justify the importance of leadership adaptability by examining how each factor can influence different styles of leadership</li> </ul> <ul style="list-style-type: none"> <li>▪ explore conflict within groups by collecting and recording data from existing case studies</li> </ul> <ul style="list-style-type: none"> <li>▪ analyse the impact conflict has on groups by: <ul style="list-style-type: none"> <li>— identifying examples of group conflict</li> <li>— recognising the causes of the conflict</li> <li>— analysing the extent of the impact on wellbeing</li> </ul> </li> </ul>

Students learn about:	Students learn to:
<p><i>conflict resolution</i></p> <ul style="list-style-type: none"> <li>▪ process <ul style="list-style-type: none"> <li>– negotiation, agreement, resolution</li> </ul> </li> <li>▪ role of support people, eg mediators, advocates</li> <li>▪ outcomes of conflict resolution <ul style="list-style-type: none"> <li>– win-win</li> <li>– win-lose</li> <li>– lose-lose</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ propose reasons why conflict resolution has different outcomes for various groups and determine the impact on group wellbeing</li> <li>▪ investigate a current conflict between 2 (two) groups in the community and evaluate the extent to which support people can assist in conflict resolution</li> </ul>



## 8.3 Preliminary core: Families and Communities

This module should occupy approximately 40 percent of total course time.

This module provides students with an insight into family structures and communities and the roles individuals adopt within each. The module requires students to examine how constant change challenges families and communities, and that both informal and formal support available can assist them to manage the change effectively.

The module recognises socialisation as a lifelong process that is influenced by both the family and other groups within the community.

This module presents students with a range of introductory research experiences such as constructing a questionnaire and conducting a literature review.

### Module focus

- Families
- Communities
- Managing change
- Socialisation of individuals within families and communities

### Outcomes

A student:

- P1.1 describes the contribution an individual's experiences, values, attitudes and beliefs make to the development of goals
- P1.2 proposes effective solutions to resource problems
- P2.2 describes the role of the family and other groups in the socialisation of individuals
- P2.4 analyses the interrelationship between internal and external factors and their impact on family functioning
- P3.1 explains the changing nature of families and communities in contemporary society
- P3.2 analyses the significance of gender in defining roles and relationships
- P4.1 utilises research methodology appropriate to the study of social issues
- P4.2 presents information in written, oral and graphic form
- P6.1 distinguishes those actions that enhance wellbeing.

Students learn about:	Students learn to:
<p><b>families</b></p> <p><i>family</i></p> <ul style="list-style-type: none"> <li>▪ defining family</li> <li>▪ the Australian Census Dictionary glossary definition of family</li> </ul> <p><i>family structures</i></p> <ul style="list-style-type: none"> <li>▪ adoptive</li> <li>▪ blended</li> <li>▪ childless</li> <li>▪ communal</li> <li>▪ de facto</li> <li>▪ extended</li> <li>▪ foster</li> <li>▪ nuclear</li> <li>▪ same-sex couple</li> <li>▪ sole parent</li> <li>▪ kinship</li> </ul> <p><i>roles individuals adopt within families</i></p> <ul style="list-style-type: none"> <li>▪ satisfying specific needs</li> <li>▪ building relationships</li> <li>▪ promoting wellbeing</li> </ul> <p><b>communities</b></p> <p><i>communities</i></p> <ul style="list-style-type: none"> <li>▪ definitions of a community</li> <li>▪ reasons for community formation, eg common interest/purpose</li> </ul> <p><i>questionnaires as a primary research method</i></p> <ul style="list-style-type: none"> <li>▪ developing reliable questions</li> <li>▪ collecting and recording data</li> <li>▪ advantages and disadvantages</li> </ul> <p><i>levels of community organisation</i></p> <ul style="list-style-type: none"> <li>▪ local</li> <li>▪ state</li> <li>▪ national</li> <li>▪ global</li> </ul> <p><i>roles groups adopt within communities</i></p> <ul style="list-style-type: none"> <li>▪ satisfying specific needs</li> <li>▪ building relationships</li> <li>▪ promoting wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>▪ examine definitions of family and propose reasons for the variations</li> <li>▪ compare and contrast different family structures</li> <li>▪ outline the roles within families</li> <li>▪ analyse how different family structures can influence the roles individuals adopt</li> <li>▪ use data from the Australian Bureau of Statistics (ABS) to identify the groups that make up their local community</li> <li>▪ construct a questionnaire that could be used to identify the demographics of their local community</li> <li>▪ use tallying to record research data collected from numerous questionnaires</li> <li>▪ analyse ways that groups within communities can meet the specific needs of people from a local to a global level</li> <li>▪ investigate how groups have assisted individuals to overcome adversity through the roles they have adopted within the community. Consider groups such as:</li> </ul>

Students learn about:	Students learn to:
<p><i>decision making in communities</i></p> <ul style="list-style-type: none"> <li>▪ influences on decision making <ul style="list-style-type: none"> <li>– legislation</li> <li>– environmental factors</li> <li>– lobbying and community petitions</li> <li>– protesting</li> </ul> </li> <li>▪ processes <ul style="list-style-type: none"> <li>– arbitration</li> <li>– consensus</li> <li>– election</li> <li>– voting</li> <li>– referendum</li> </ul> </li> </ul> <p><b>managing change in families and communities</b></p> <p><i>nature of change</i></p> <ul style="list-style-type: none"> <li>▪ internal and external</li> <li>▪ planned and unplanned</li> <li>▪ temporary and permanent</li> </ul> <p><i>Impact of change on families and communities</i></p> <ul style="list-style-type: none"> <li>▪ family and community wellbeing</li> <li>▪ roles individuals adopt</li> <li>▪ environmental</li> <li>▪ legislation</li> <li>▪ technology</li> </ul> <p><i>types of support</i></p> <ul style="list-style-type: none"> <li>▪ informal, eg relatives, friends, neighbours</li> <li>▪ formal, eg government agencies, community organisations</li> </ul>	<ul style="list-style-type: none"> <li>– charity groups</li> <li>– religious groups</li> <li>– health services groups</li> <li>– emergency services groups</li> </ul> <ul style="list-style-type: none"> <li>▪ explain how each factor influences decisions within the community</li> </ul> <ul style="list-style-type: none"> <li>▪ explore the processes used to make decisions in the community, eg local council meeting, resident management groups, tribunal</li> <li>▪ examine a local community decision or proposal by: <ul style="list-style-type: none"> <li>– identifying the roles of individuals and groups</li> <li>– the factors influencing the decision-making process</li> <li>– the processes employed to make the decision</li> <li>– the outcome(s) or potential outcome(s) of the decision</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>▪ explore examples of change within</li> <li>▪ families and communities and determine: <ul style="list-style-type: none"> <li>– the nature of the change</li> <li>– the impact of the change</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>▪ investigate how informal and formal support assists to manage change</li> </ul>

Students learn about:	Students learn to:
<p><b>socialisation of individuals within families and communities</b></p> <p><i>stages of the life span</i></p> <ul style="list-style-type: none"> <li>▪ infancy</li> <li>▪ childhood</li> <li>▪ adolescence</li> <li>▪ adulthood</li> <li>▪ the aged</li> </ul> <p><i>literature review as a secondary research method</i></p> <ul style="list-style-type: none"> <li>▪ accessing sources of data</li> <li>▪ advantages and disadvantages</li> </ul> <p><i>influences on socialisation</i></p> <ul style="list-style-type: none"> <li>▪ relatives</li> <li>▪ peers</li> <li>▪ paid carers</li> <li>▪ health professionals</li> <li>▪ online networks</li> <li>▪ media</li> <li>▪ print and digital information</li> </ul>	<ul style="list-style-type: none"> <li>▪ analyse the specific needs that are of greatest significance to the individual at each stage of the life span</li>   <li>▪ access sources of secondary data in order to conduct a literature review on socialisation throughout the life span</li>   <li>▪ assess how family and other groups within the community contribute to socialisation during infancy and childhood</li> <li>▪ analyse how the socialisation of children influences the construction of gender</li> <li>▪ explain how socialisation aims to assist individuals to adopt positive roles within families and communities</li> </ul>



**Exploring  
Early  
Childhood**

## Exploring Early Childhood

Syllabus Outcomes	Syllabus Component Weight	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Pregnancy & Childbirth Report & Reflection <b>Units:</b> Core A: Pregnancy & Childbirth	Research Report & Safety Resource <b>Units:</b> Core B: Growth & Development Core C: Promoting Positive Behaviour	Party Planning & Nutrition <b>Units:</b> Core B: Growth & Development Core C: Promoting Positive Behaviour
		<b>Date:</b> Term 1 Week 9	<b>Date:</b> Term 2 Week 8	<b>Date:</b> Term 3 Week 7
		<b>Outcomes:</b> 1.1, 1.4, 1.5, 2.4, 5.1, 6.1	<b>Outcomes:</b> 1.2, 1.3, 1.4, 2.5, 3.1, 4.2, 5.1	<b>Outcomes:</b> 1.2, 1.5, 2.4, 2.5, 3.1, 4.1
<b>TASK WEIGHTINGS</b>				
Knowledge & understanding of course content	50%	15%	15%	20%
Skills in critical thinking, research methodology, analysing and communicating	50%	15%	15%	20%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

### Outcomes

#### A student:

- 1.1 analyses prenatal issues that have an impact on development
- 1.2 examines major physical, social-emotional, behavioural, cognitive and language development of young children
- 1.3 examines the nature of different periods in childhood -infant, toddler, preschool and the early school years
- 1.4 analyses the ways in which family, community and culture influence the growth and development of young children
- 1.5 examines the implications for growth and development when a child has special needs
- 2.1 analyses issues relating to the appropriateness of a range of services for different families
- 2.2 critically examines factors that influence the social world of young children
- 2.3 explains the importance of diversity as a positive issue for children and their families
- 2.4 analyses the role of a range of environmental factors that have an impact on the lives of young children
- 2.5 examines strategies that promote safe environments
- 3.1 evaluates strategies that encourage positive behaviour in young children
- 4.1 demonstrates appropriate communication skills with children and/or adults
- 4.2 interacts appropriately with children and adults from a wide range of cultural backgrounds
- 4.3 demonstrates appropriate strategies to resolve group conflict
- 5.1 analyses and compares information from a variety of sources to develop an understanding of child growth and development
- 6.1 demonstrates an understanding of decision making processes
- 6.2 critically examines all issues including beliefs and values that may influence interactions with others.



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Exploring Early Childhood
<b>Teacher:</b>	Mrs K Kirk
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Preliminary – Core Unit 1 - Pregnancy & Childbirth
<b>Date Issued:</b>	Term 1 Week 3 2025
<b>Date and Time Due:</b>	Term 1 Week 9 2025
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	50% class time between Week 3 & Week 9
<b>Presentation and Submission Guidelines:</b>	Include information about prior knowledge before simulated baby experience. You will need to submit a schedule, record, personal experiences journal and reflection, Submission is due via google classroom or email.
<b>Marking Process:</b>	2 weeks after completion of the baby simulation and student hands back the baby, their task will be due the following Friday by 3.20pm

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1.1	analyses prenatal issues that have an impact on development
P1.4	analyses the ways in which family, community and culture influence the growth and development of young children
P1.5	examines the implications for growth and development when a child has special needs
P2.4	analyses the role of a range of environmental factors that have an impact on the lives of young children
P5.1	analyses and compares information from a variety of sources to develop an understanding of child growth and development
P6.1	demonstrates an understanding of decision making processes

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

**SUBMISSION REQUIREMENTS:**

*Information must be Australian based and current. You may access books, internet, computer software packages, childcare Centre's, childcare workers or kindergartens. ensure you include all your own work, you can paraphrase, as long as you include the source in a reference list.*

**TASK DESCRIPTION**

This task introduces students to the complex role of becoming a parent or providing care to a newborn baby. Through a simulation baby and the experiences that take place over a 4 night (week day) period of time (Pick up Monday through to drop off Friday). Students are required to think about the many aspects involved in the role of parenting. Students will undertake a self-assessment before the simulation, record the care throughout the block of time, maintain a journal of the experience and reflect on the whole process.

<b>Marks allocated for each section</b>		
<b>Part:</b>	<b>Activity:</b>	<b>Marks</b>
<b>Part 1</b>	Self Assessment/prior knowledge	<b>10 Marks</b>
<b>Part 2</b>	Schedule Record	<b>10 Marks</b>
<b>Part 3</b>	Journal on emotion and experiences	<b>15 Marks</b>
<b>Part 4</b>	Reflection	<b>15 Marks</b>
<b>= 50 Marks @ weighting 20 %</b>		

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**Part 1: Parent/Caregiver Self-Assessment**

Directions: Answer the following questions by placing an “x” in the appropriate box, writing your response in the space provided, or circling the best answer.

1. The youngest child I have cared for was:

- Infant (newborn to 12 months)
- Toddler (1 to 3 years)
- Pre schooler (3 to 5 years)
- School-ager (5 years and older)
- I have never cared for a child.

**(1/2 mark)**



2. The longest length of time I have cared for a child was:

- 1 to 4 hours
- 5 to 8 hours
- Overnight
- Days at a time
- I have never cared for a child.

**(1/2 mark)**

3. I have cared for up to \_\_\_\_\_ children at a time.

**(1/2 mark)**

4. On a scale of 1 to 5, I would rate my skills as the following:

	Poor	Average	Excellent
Ability to make decisions	1	2 3	4 5
Ability to be patient with children	1	2 3	4 5
Ability to communicate with children	1	2 3	4 5
Ability to communicate with parents/guardians	1	2 3	4 5
Ability to attend to an infant's basic needs	1	2 3	4 5
Ability to have fun with children	1	2 3	4 5
Ability to think quickly in an emergency	1	2 3	4 5
Ability to perform first aid and CPR	1	2 3	4 5
Ability to handle misbehaviour	1	2 3	4 5
Understanding of developmental stages	1	2 3	4 5

**(1 marks)**



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**ASSESSMENT TASK NOTIFICATION**

5. The reasons I want to be a caregiver/childminder/childcare worker are:

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**(2.5 marks)**

6. What kind of professional traits do you think would be important as a childcare worker or caregiver?

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**(2.5 marks)**



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7. What are the main fundamentals that are important for a human being to live safely and happily? (Needs, not wants).

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**(2.5 marks)**

Marking Criteria Part 1	Marks
• Fully answers all questions, with detail.	10 - 9 A
• Most questions are answered with some detail	8 - 7 B
• Partially answered questions, with limited information	6 - 5 C
• Completes less than half questions, with limited information.	4 - 3 D
• Fails to complete survey.	2 - 1 E

Comment:

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**PART TWO: Schedule Record:**

Directions: For each care event Baby requires, write down the date and time. For feeding, note how long it took to feed since you cannot indicate quantity fed as with a real infant. Indicate how long Baby slept for in that 24 hour period. In the Comments column, use the Emotions key provided to note how you are feeling at the end of that 24 hour period. (you can use more than 1 of the word options).

Emotions Key:					
Happy	Anxious	Frustrated	Tired	Overwhelmed	Sense of achievement/ proud



**Emotions & Experience Tracking Diary:**

Date	Total time spent feeding for that day	Total time spent sleeping for that day	Total time spent nappy changing	Time spent with nanny	Comments
<b>Example Day 1</b> 15.3.13	22 minutes	1 hour 45 minutes	10 minutes	Nil	Proud, tired
<b>Day 1</b>					



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<b>Day 2</b>					
<b>Day 3</b>					
<b>Day 4</b>					



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<b>Day 5</b>					
<b>Total:</b>					

Marking Criteria Part 2	Marks
Completes accurately detailed schedule for a 4-day period and results match simulation print out. Achieving above 90 % score.	10 -9 A
Completes schedule with a high level of detail for a 4-day period and results match simulation print out. Achieving above 70 % score.	8 -7 B
Completes schedule, including a sound level of detail for a 4-day period and results match simulation print out. Achieving above 60 % score.	6 - 4 C
Completes schedule, including a basic level of detail for a 4-day period and results match simulation print out. Achieving above 30 % score.	3 -2 D
Completes schedule, including a limited level of detail for a 4-day period and results match simulation print out. Achieving above 10 % score.	1- 0 E
Comment:	



### **Part 3: Experience Journal:**

Directions: During the care simulation, write down your thoughts and feelings about **your** experiences. Explain challenges you faced or emotions you felt (refer back to the emotion keys and use your own terms). *This information will help you with the reflection part of the assignment (part 4)*

**Example:**

*I was quite nervous when I first received the baby, as I have not had very much involvement or experience with babies or young children. The first day was not too challenging as the baby was quite settled and did not require too much attention, especially at night; she slept through for 6 hours. Unfortunately, this was not the case for the rest of the week. There was no pattern to the babies needs and I began to find caring for my baby and attending school, doing homework etc very demanding. At times I felt quite overwhelmed and inadequate.*



## Experience Journal



Day, Date:	Journal Entry:



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Marking Criteria Part 3	Marks
Presents an outstanding level of detail, in the experience journal that includes insightful comments about the simulation, including relevant and accurate information, identifies a comprehensive range of realistic challenges and emotions, using relevant language and emotive terms.	20 – 18 A
Presents a high level of detail in experience journal that includes some insightful comments of the simulation, includes relevant and accurate information, identifies a comprehensive range of realistic challenges and emotions, uses relevant language and terms.	17 – 14 B
Presents a sound level of information in experience journal, including basic comments about the experience, includes some relevant information, identifies some challenges and emotions, using some relevant language and terms.	13 – 10 C
Presents a basic level of detail in experience journal, including basic comments of the simulation, identifies some or limited challenges and emotions, using some relevant language and emotive terms.	9 – 6 D
Presents a limited level information in the experience journal that includes limited comments, identifies limited or no challenges and emotions, mentions limited or no emotive terms.	5 – 1 E
Comment:	

**Part 4: Reflection**

Meaningful reflection can help you gather and express your thoughts about the challenges of responsible parenting. Your responses provide your teacher with feedback on what you learned about the realities of care giving through your research.







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Choose **one** of the following statements about being a responsible parent and create a **poem, poster** or **essay** to express what you have learned from this experience:

Try using TEEEC paragraphs or PEEL to construct your reflection:

Presentation format	Statement topic - select one statement topic to base your presentation on.
Poem	<ul style="list-style-type: none"> <li>➤ I learned that responsible caregivers need to have KNOWLEDGE about...</li> <li>➤ I learned that responsible caregivers need to have these SKILLS...</li> <li>➤ I learned that these PERSONAL LIFE SITUATIONS AND CIRCUMSTANCES can help a parent to be responsible...</li> <li>➤ I learned that responsible parents need to have these ATTITUDES...</li> </ul>
<b>or</b>	
Poster	<ul style="list-style-type: none"> <li>➤ I learned that responsible caregivers need to have KNOWLEDGE about...</li> <li>➤ I learned that responsible caregivers need to have these SKILLS...</li> <li>➤ I learned that these PERSONAL LIFE SITUATIONS AND CIRCUMSTANCES can help a parent to be responsible...</li> <li>➤ I learned that responsible parents need to have these ATTITUDES...</li> </ul>
<b>or</b>	
Essay	<ul style="list-style-type: none"> <li>➤ I learned that responsible caregivers need to have KNOWLEDGE about...</li> <li>➤ I learned that responsible caregivers need to have these SKILLS...</li> <li>➤ I learned that these PERSONAL LIFE SITUATIONS AND CIRCUMSTANCES can help a parent to be responsible...</li> <li>➤ I learned that responsible parents need to have these ATTITUDES...</li> </ul>



## Reflection:



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ASSESSMENT TASK NOTIFICATION

Marking Criteria Part 4	Marks
Demonstrates an insightful and comprehensive reflection on the whole simulation experience, identifying challenges, attitudes or situational factors that influence the ability to be a caregiver, demonstrates insightful connections to own personal life, Logical, coherent progression of ideas using TEEEC or PEEL style paragraphs.	13-15 A
Demonstrates a comprehensive reflection on the whole simulation experience, identifying challenges, attitudes or situational factors that influence the ability to be a caregiver, demonstrates insightful connections to own personal life, Logical, coherent progression of ideas using TEEEC or PEEL style paragraphs.	10-12 B
Demonstrates a reflection to a sound level, on the whole simulation experience, identifying challenges, attitudes or situational factors that influence the ability to be a caregiver, demonstrates connections to own personal life, Logical, coherent progression of ideas using TEEEC or PEEL style paragraphs.	7 - 9 C
Demonstrates a reflection to a basic level, on the whole simulation experience, identifying limited or no challenges, limited connections to own personal life, limited use of TEEEC or PEEL style paragraphs.	3-5 D
Demonstrates a reflection to a limited level, on the whole simulation experience, identifying limited or no challenges, limited or no connections to own personal life, dose not use TEEEC or PEEL style paragraphs.	0-2 E
Comment:	



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Section:	Mark
Part 1	/5
Part 2	/10
Part 3	/20
Part 4	/15
Total	/50

Feedback:	
<b>Medals</b> •	<b>Missions</b> •

<b>Final mark/grade:</b>	
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<b>Student Reflection:</b>



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Exploring Early Childhood
<b>Teacher:</b>	K Kirk
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Preliminary – Core Unit 2 - Child Growth and Development/Promoting Positive Behaviour - Written Report/case study response
<b>Date Issued:</b>	Term 2, Week 2
<b>Date and Time Due:</b>	Week 8
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	50% of class lessons between Week 2 – Week 8
<b>Presentation and Submission Guidelines:</b>	<p><b>You will be assessed on your ability to:</b></p> <ul style="list-style-type: none"><li>• interact and communicate appropriately with children and adults from a variety of backgrounds record and present information in a variety of formats</li><li>• examine ways in which family, community and culture impact on children’s growth and development</li><li>• Submission printed or via email, Google Classroom etc.</li></ul>
<b>Marking Process:</b>	<p>Information must be Australian based and up to date. You may access books, internet, computer software packages, childcare centres, kindergarten or any other relevant sources. Note all your references in bibliography. Information downloaded from the internet will not be considered for marking if it has not been appropriately incorporated into your task (e.g. – direct copying or straight downloading- is not acceptable).</p> <p>All tasks will be handed in at the commencement of the lesson. If not, the task will be classified as late.</p>

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
1.2	Examines major physical, social-emotional, behavioural, cognitive and language development
1.3	Examines the nature of different periods in childhood – infant, toddler, preschool and the early school years

- 1.4 Analyses the ways in which family, community and culture influence the growth and development of young children
- 2.5 examines strategies that promote safe environments
- 4.1 Demonstrates appropriate communication skills with children and/or adults
- 4.2 Interacts appropriately with children and adults from a wide range of cultural backgrounds
- 5.1 analyses and compares information from a variety of sources to develop an understanding of child growth and development

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

**Task Description:****Task Description:**

Complete all sections of the task, including short answer question, field study visits and report. Include information in a word-processed document and references where information was obtained from.

**Part A: Short answer questions:**

1. Explain the different types of development;
  - a. Physical growth and motor development
  - b. Social-emotional development
  - c. Cognitive development
  - d. Language development

**Part B – Research Report on Childcare centre**

Research various types of child care available in your local area. This centre can be a long day care centre, kindergarten, family day care, before and after school care, family day care or a preschool, using Facebook pages, websites, or call the centre to gain as much information as possible, such as: general running of the centre. facilities, activities and programs.

You will also be observing the development and skills of one child at the centre or if you have a sibling or other family member of friends children if possible. This information will remain confidential and NO names will be used. All work is to be word processed and presented on A4.

**Step 1 - Gather and Research A Childcare Centre and a child demographic**

1	Select a child care service in your local area, identify information sources (websites, brochures, speaking to the director or face book pages.	
2	Identify a child you can observe.	

**Step 2 – Research Questions**

1	Create a centre profile, explain the following in detail, include images and references  Type of the centre	
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	<p>Who they cater for (ages)</p> <p>Facilities they have available</p> <p>Do they cater for special needs or specific needs (groups).</p> <p>Educators available, training requirements</p> <p>Does the centre have any awards or star rating etc.</p>	
2	<p>Outline the skills a child <u>should have</u> at each of the various stages of</p> <ul style="list-style-type: none"> <li>• <u>Infancy 0 – 1 years</u> <ul style="list-style-type: none"> <li>- Motor</li> <li>- social-emotional</li> <li>- cognitive development</li> </ul> </li> <li>• <u>Toddler 2 – 3 years</u> <ul style="list-style-type: none"> <li>- Motor</li> <li>- social-emotional</li> <li>- cognitive development</li> </ul> </li> <li>• <u>Preschooler, 4 -5 years</u> <ul style="list-style-type: none"> <li>- Motor</li> <li>- social-emotional</li> <li>- cognitive development</li> </ul> </li> <li>• <u>Primary school age 5 - 6</u> <ul style="list-style-type: none"> <li>- Motor</li> <li>- social-emotional</li> <li>- cognitive development</li> </ul> </li> </ul>	
3		

**Step 3 - The child care centre visit:**

1	Record the type of Child Care service you have visited.	
2	<p>Conduct an interview with the director or nominated teacher and discuss the following:-</p> <ol style="list-style-type: none"> <li>a. The target group of children</li> <li>b. Activities offered for the child/group of children</li> <li>c. Types of programs offered to the child/ren</li> <li>d. Provisions for children with special needs</li> </ol> <p>Record your findings</p>	



<b>3</b>	Select ONE child at the childcare service. Observe the child and, using your checklist tick off the skills you see them demonstrate.			
<b>4</b>	Draw up a time chart showing 3x15 minute intervals and record the child's activities.  (See example below)			
	Time	Activity	Period in childhood	Comment
	10-10.15am	Drawing	Toddler	Child able to control pencil uses big broad stroke actions, doesn't remain in lines

**Step 4 - After the child care centre visit:**

<b>1</b>	Compare the child's development with normal development. Use the data you have collected and any discussion with the centre staff member to do this comparison.  Record your results.	
<b>2</b>	Suggest reasons why the child is below or above the expected developmental stage.	
<b>3</b>	Describe ONE learning experience that could be used to promote the child's development in an area where the child might be having difficulty.	
<b>4</b>	Copy and complete the tables below to explain the impact that family, community and culture have on the growth and development of young children.	

Explain how the following factors can influence a child's growth and development, including;

- a. Family environment
- b. Culture
- c. Nutrition
- d. Genetics

Impact of FAMILY on the growth and development of young children

Developmental Area	Positive influences	Negative influences
Motor		
Social-emotional		
Cognitive		
Language		

Impact of COMMUNITY and resources within the community on growth and development of young children e.g. parks, childcare, health services, community services

Developmental Area	Positive influences	Negative influences
Motor		
Social-emotional		
Cognitive		
Language		

Impact of CULTURE on growth and development of young children

Developmental Area	Positive influences	Negative influences
Motor		
Social-emotional		
Cognitive		
Language		

**Success Criteria:**

**SUBMISSION REQUIREMENTS**

Information must be Australian based and up to date. You may access books, internet, computer software packages, childcare centres, kindergarten or any other relevant sources. Note all your references in bibliography. Information downloaded from the internet will not be considered for marking if it has not been appropriately incorporated into your task (e.g. – direct copying or straight down loading- is not acceptable).

All tasks will be handed in at the commencement of the lesson. If not, the task will be classified as late.

**MARKING GUIDELINES - You will be assessed on your ability to:**

- interact and communicate appropriately with children and adults from a variety of background
- record and present information in a variety of formats
- examine ways in which family, community and culture impact on children's growth and development

Marking Guidelines:	Grade
<p><b><u>Outstanding:</u></b></p> <p>Presents a <u>thorough, detailed</u> field study report that:</p> <ul style="list-style-type: none"> <li>- demonstrates highly developed communication skills through an interview</li> <li>- provides a detailed checklist including all the stages of development.</li> <li>- correctly identifies 5 skills in appropriate areas of development.</li> <li>- analyses the developmental progress of a child.</li> <li>- provides a detailed description of a learning experience to promote the child's development.</li> <li>- explains in clear, concise detail the positive and negative impacts a family, community and culture have on the growth and development of young children.</li> <li>- answers all questions with thorough detail</li> <li>- presented in a word document, referenced, correct use of grammar and spelling.</li> </ul>	<p>50 - 43</p> <p>A</p>
<p><b><u>High</u></b></p> <p>Presents a <u>detailed</u> field study report that:</p> <ul style="list-style-type: none"> <li>- demonstrates highly developed communication skills through an interview</li> <li>- provides a detailed checklist including all the stages of development.</li> <li>- correctly identifies 5 skills in appropriate areas of development.</li> <li>- analyses the developmental progress of a child.</li> <li>- provides a detailed description of a learning experience to promote the child's development.</li> <li>- explains the positive and negative impacts a family, community and culture have on the growth and development of young children.</li> <li>- answers all questions with great detail</li> <li>- presented in a word document, referenced, correct use of grammar and spelling.</li> </ul>	<p>42 - 34</p> <p>B</p>
<p><b><u>Sound:</u></b></p> <p>Presents a <u>sound coverage</u> for the field study that:</p> <ul style="list-style-type: none"> <li>- demonstrates well developed communication skills through an interview</li> <li>- provides a checklist including most of the stages of development.</li> <li>- correctly identifies 5 skills in appropriate areas of development.</li> <li>- outlines the developmental progress of a child.</li> <li>- provides a description of a learning experience to promote the child's development.</li> <li>- outlines in some detail the positive and negative impacts a family, community and culture have on the growth and development of young children.</li> <li>- answers all questions with some or good detail</li> <li>- presented in a word document, referenced, correct use of grammar and spelling.</li> </ul>	<p>33 - 24</p> <p>C</p>

<p><b>Basic:</b></p> <p>Presents a <u>limited or no information</u> for the field study.</p> <ul style="list-style-type: none"> <li>- demonstrates developing skills in communication through an interview</li> <li>- provides a checklist including some of the stages of development.</li> <li>- identifies 5 skills in appropriate areas of development.</li> <li>- outlines the developmental progress of a child.</li> <li>- provides a description of a learning experience to promote the child's development.</li> <li>- outlines the positive and negative impacts a family, community and culture has on the growth and development of young</li> <li>- answers some questions with some or good detail</li> <li>- presented in a word document, referenced, correct use of grammar and spelling. May be some mistakes.</li> </ul>	<p>23 - 13</p> <p>D</p>
<p><b>Elementary:</b></p> <p>Presents a <u>limited or no information</u> for the field study.</p> <ul style="list-style-type: none"> <li>- demonstrates limited skills in communication</li> <li>- missing some sections</li> <li>- may identify some skills in appropriate areas of development.</li> <li>- May outline some the developmental progress of a child.</li> <li>- provides a limited description of a learning experience to promote the child's development.</li> <li>- May not include the positive and negative impacts a family, community and culture has on the growth and development of young</li> <li>- Many questions unanswered</li> <li>- May not be presented in a word document, may not have reference list, there may be many grammar and spelling mistakes.</li> </ul>	<p>12 - 1</p> <p>E</p>
<p>Comment:</p>	



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Exploring Early Childhood - Optional units – Food & Nutrition & Core Unit – Promoting Positive Behaviour,
<b>Teacher:</b>	K Kirk
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Part A - Party portfolio, Part B - case study questions, Part C – practical
<b>Date Issued:</b>	Term 3 Week 1
<b>Date and Time Due:</b>	Term 3 Week 7
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	50% of class lessons between Week 2 and Week 7
<b>Presentation and Submission Guidelines:</b>	<p>Please submit a hard copy or digital version of the portfolio and case study. Information must be Australian based and up to date.</p> <p>You may access books, internet, computer software packages, childcare centres, or any other relevant sources.</p> <p>Note all your references in bibliography ( No plagiarism -direct copying or straight down loading- is not acceptable).</p>
<b>Marking Process:</b>	Will be completed using the marking criteria for the portfolio, case study and practical.

<b>Outcomes Assessed:</b>	
Syllabus Code	Syllabus Description
1.2	examines major physical, social-emotional, behavioural, cognitive and language development of young children
1.5	examines the implications for growth and development when a child has special needs
2.4	analyses the role of a range of environmental factors that have an impact on the lives of young children
2.5	examines strategies that promote safe environments
4.1	demonstrates appropriate communication skills with children and/or adults
6.1	demonstrates an understanding of decision making processes
6.2	critically examines all issues including beliefs and values that may influence interactions with others.



### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

### Task Description:

Part A Theory: (60 marks) presentation portfolio of party plan.

Plan a children's party.

This party can be for a birthday or other similar celebration for a child. This child must be between 1 – 6 years old. You will be given a budget of no more than \$600, this includes, food entertainment, decorations, invitations, cake, party bags.

Provide information under the following headings:

- Cover page
- Content page
- Profile page of child (name, age, family situation, likes, dislikes)
- Identify a Theme
- Include the Venue information and how the party will be set up
- Number of guests
- Schedule list, including time management plan for the event (listing approximate times for games, entertainment, food, etc)
- List of activities, games, props etc
- Menu and food board list ( so people can see what food will be available)
- Include a guest with a specific dietary requirement and explain how you will cater for their needs ( i.e peanut allergy, dairy allergy, wheat, coeliac, ADHA etc). Include any planning for first aid management for this guest and any other injuries such as including on hand a first aid kit or Epi pen.
- Resources list, including costing and images, party bags, cake, piñata, prizes, decorations, food etc.
- Include an invitation list with time, date, map etc
- References all information.



Case study on a situation that happens at your party: (10 Marks)

Read & Complete case study questions in (bold)

It's a warm summer day, you are hosting your child's (Evie's) 5th birthday party. One of her friends is coming, (Johnny) who has ADHD and tends to get frustrated easily, his parents try to limit his sugar intake as this helps with his behaviour, and focus on positive reinforcement as a behaviour management plan.

Is there something you can do in preparation for assist Johnny? (2 marks)

Johnny arrives and see's a table with party bags with lots of lollies on it and runs over to it.

How do you deal with this situation? (3 Marks)

It is about half way through the party and its pass the parcel time. The music is going, and you notice Johnny getting frustrated as the parcel hasn't landed on his lap and stopped yet. You notice Johnny grabbing and holding on to the parcel and not moving it on (even though the music is still playing). The person next to Johnny is another boy and just wants to grab the parcel and keep playing.

What will you do? (2 marks)

What can you say to Johnny and the boy sitting next to him to calm the situation? (3 Marks)

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Part B practical: (30 marks)

Create the birthday cake and decorate it to suit your theme.

You will be marked on:

- WH&S
- Hygiene
- Time management,
- Creativity & Decorative ability and the overall result of the product,
- Suitability
- Include a recipe/workflow and images
- Evaluation of the practical using PMI (Positive, Minus or Negatives and improvements)





<b>Marks breakdown:</b>	
Part A - Party Portfolio:	50 marks
Part B - Case study:	10 Marks
Part C - Practical:	30 Marks
Total:	/100
<b>Checklist:</b>	
Cover page	
Content page	
Profile page of child (name, age, family situation, likes, dislikes)	
Identify a Theme	
Include the Venue information and how the party will be set up	
Number of guests	
Schedule list, including time management plan for the event (listing approximate times for games, entertainment, food, etc)	
List of activities, games, props etc	
Menu and food board list ( so people can see what food will be available)	
Include a guest with a specific dietary requirement and explain how you will cater for their needs ( i.e peanut allergy, dairy allergy, wheat, coeliac, ADHA etc). Include any planning for first aid management for this guest and any other injuries such as including on hand a first aid kit or Epi pen.	
Resources list, including costing and images, party bags, cake, piñata, prizes, decorations, food etc.	
Include an invitation list with time, date, map etc	
References all information.	
<b>Practical Checklist:</b>	
Preparation for the practical	
Techniques and skills in reading the recipe, following the recipe.	
Time management, completing the recipe in the required time.	



<p>Food presentation (food looks edible and tastes great)          Cleaning and hygiene (cleans all areas used, washing and dries all equipment and puts back, wipes benches down and cleans sink area)</p>	
<p>Recipe Card, included with a picture and all relevant information (serves, amounts, time to prepare and cook, equipment and ingredients and instructions, also includes a picture)</p>	
<p>Time plan, includes all tasks to do in making the recipe, including getting dressed, collecting equipment, ingredients etc)</p>	
<p>Explanation of recipe suitability to the age of the child having the birthday party          Critically evaluates how the practical went, and talks about things that worked well, things that didn't work well and things that could have been improved on for next time and. (PM!)</p>	
<p><b>Success Criteria:</b></p>	
<p><b>SUBMISSION REQUIREMENTS</b></p> <p>Information must be Australian based and up to date. You may access books, internet, computer software packages, childcare centres, kindergarten or any other relevant sources. Note all your references in bibliography. Information downloaded from the internet will not be considered for marking if it has not been appropriately incorporated into your task (e.g. – direct copying or straight down loading- is not acceptable).</p> <p>All tasks will be handed in at the commencement of the lesson. If not, the task will be classified as late.</p> <p><b>MARKING GUIDELINES - You will be assessed on your ability to:</b></p> <ul style="list-style-type: none"> <li>•interact and communicate appropriately with children and adults from a variety of background</li> <li>•record and present information in a variety of formats</li> <li>•examine ways in which family, community and culture impact on children’s growth and development</li> </ul>	



Marking Criteria Theory/portfolio:	Grade
<p><b>Description:</b></p>	
<p>Demonstrates outstanding planning and organisation in party planning, covering all aspects extensively, with detail.  Clearly demonstrates outstanding ability to stay within limitations when planning a children's birthday party and stays with the set budget.  Demonstrates attention to detail and includes all sections of the presentation.  Fully referenced.  Demonstrates an outstanding, informative and visually appealing presentation.</p>	<p>Outstanding  A 25 - 30</p>
<p>Demonstrates thorough planning and organization in party planning, covering all aspects.  Demonstrates A thorough ability to stay within limitations when planning a children's birthday party and stays with the set budget.  Demonstrates attention to detail and includes all sections of the presentation. Fully referenced.  Demonstrates a thorough, informative and visually appealing presentation.</p>	<p>High  B 18-24</p>
<p>Demonstrates competent planning and organization in party planning, covering all aspects.  Demonstrates a competent ability to stay within limitations when planning a children's birthday party and stays with the set budget.  Demonstrates a good level of understanding how to present a folder includes all or most sections of the presentation. Fully referenced.  Demonstrates a competent, informative and visually appealing presentation.</p>	<p>Sound  C 17-12</p>
<p>Demonstrates a basic level of planning and organization in party planning, covering all aspects.  Demonstrates a basic ability to stay within limitations when planning a children's birthday party and stays with the set budget.  Demonstrates a basic level of understanding how to present a folder includes all or most sections of the presentation. Some references.  Demonstrates a basic, informative and visually appealing presentation.</p>	<p>Basic  D 6-11</p>
<p>Demonstrates a limited level of planning and organization in party planning, covering all aspects.  Demonstrates a limited ability to stay within limitations when planning a children's birthday party and stays with the set budget.  Demonstrates a limited level of understanding how to present a folder includes all or most sections of the presentation folder to a competent level. No reference.  Limited information included and no visually appealing elements implemented in the presentation.</p>	<p>Limited  E 0-5</p>
<p>Comment:</p>	



**English**  
**Advanced**



## Rationale for English Advanced

In the English Advanced course, students continue to explore opportunities that are offered by challenging texts to investigate complex and evocative ideas, to evaluate, emulate and employ powerful, creative and sophisticated ways to use language to make meaning, and to find enjoyment in literature.

The English Advanced course is designed for students who have a particular interest and ability in the subject and who desire to engage with challenging learning experiences that will enrich their personal, intellectual, academic, social and vocational lives. Students appreciate, analyse and respond imaginatively and critically to literary texts drawn from a range of personal, social, historical and cultural contexts, including literature from the past and present and from Australian and other cultures. They study challenging written, spoken, visual, multimodal and digital texts that represent and reflect a changing global world.

Through their study of English students can become critical thinkers, and articulate and creative communicators. They extend and deepen their ability to use language in subtle, nuanced, inventive and complex ways to express experiences, ideas and emotions. They refine their understanding of the dynamic relationship between language, texts and meaning. They do this through critical study and through the skilful and creative use of language forms and features, and of structures of texts composed for different purposes in a range of contexts. They extend their experiences in researching, accessing, evaluating and synthesising information and perspectives from a range of sources to fulfil a variety of purposes.

Through exploring and experimenting with processes of composition and response, students further develop understanding of how language is employed to create artistic expression in texts. They analyse the different ways in which texts may reflect and/or challenge and extend the conventions of other texts. They evaluate the meanings conveyed in these texts, and how this is achieved. Students further develop skills in independent, collaborative and reflective learning. Such skills form the basis of sound practices of investigation and analysis required for adult life, including the world of work as well as post-school training and education. The modules encourage students to question, reconsider and refine meaning through language, and to reflect on their own processes of responding, composing and learning.



## Year 11 Course Structure and Requirements

	English Advanced	Indicative hours
<b>Year 11 course (120 hours)</b>	Common Module: Reading to Write	40
	Module A: Narratives that Shape our World	40
	Module B: Critical Study of Literature	40
<b>Text requirements</b>	There are no prescribed texts for Year 11. Students must study a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts. The Year 11 course requires students to support their study of texts with their own wide reading.	

For the **English Advanced Year 11** course students are required to:

- Complete 120 indicative hours
- Complete the Common Module as the first unit of work
- Complete Modules A and B.

**Across Stage 6** the selection of texts **must** give students experience of the following:

- a range of types of texts inclusive of prose fiction, drama, poetry, nonfiction, film, media and digital texts.
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander Peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.



## Objectives

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### Knowledge, Understanding and Skills

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- communicate through speaking, listening, reading, writing, viewing and representing
- use language to shape and make meaning according to purpose, audience and context
- think in ways that are imaginative, creative, interpretive and critical
- express themselves and their relationships with others and their world
- learn and reflect on their learning through their study of English.

### Values and Attitudes

Students value and appreciate:

- the importance of the English language as a key to learning
- the personal enrichment to be gained from a love of English, literature and learning
- the power of language to explore and express views of themselves as well as the social, cultural, ethical, moral, spiritual and aesthetic dimensions of human experiences
- the power of effective communication using the language modes of speaking, listening, reading, writing, viewing and representing
- the role of language in developing positive interaction and cooperation with others
- the diversity and aesthetics of language through literary and other texts
- the independence gained from thinking imaginatively, creatively, interpretively and critically.



## Outcomes

### Table of Objectives and Outcomes – Continuum of Learning

<p><b>Objective A</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>• communicate through speaking, listening, reading, writing, viewing and representing*</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EA11-1</b> responds to, composes and evaluates complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure</p> <p><b>EA11-2</b> uses and evaluates processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies</p>	<p><b>EA12-1</b> independently responds to, composes and evaluates a range of complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure</p> <p><b>EA12-2</b> uses, evaluates and justifies processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies</p>

\*Some students with special education needs communicate through a variety of verbal or nonverbal communication systems or techniques. It is important to take account of the individual communication strategies used by these students within the context of the *English Advanced Stage 6 Syllabus*.





<p><b>Objective B</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>use language to shape and make meaning according to purpose, audience and context</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EA11-3</b> analyses and uses language forms, features and structures of texts considering appropriateness for specific purposes, audiences and contexts and evaluates their effects on meaning</p> <p><b>EA11-4</b> strategically uses knowledge, skills and understanding of language concepts and literary devices in new and different contexts</p>	<p><b>EA12-3</b> critically analyses and uses language forms, features and structures of texts justifying appropriateness for specific purposes, audiences and contexts and evaluates their effects on meaning</p> <p><b>EA12-4</b> strategically adapts and applies knowledge, skills and understanding of language concepts and literary devices in new and different contexts</p>

<p><b>Objective C</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>think in ways that are imaginative, creative, interpretive and critical</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EA11-5</b> thinks imaginatively, creatively, interpretively and critically to respond to, evaluate and compose texts that synthesise complex information, ideas and arguments</p> <p><b>EA11-6</b> investigates and evaluates the relationships between texts</p>	<p><b>EA12-5</b> thinks imaginatively, creatively, interpretively, critically and discerningly to respond to, evaluate and compose texts that synthesise complex information, ideas and arguments</p> <p><b>EA12-6</b> investigates and evaluates the relationships between texts</p>



<p><b>Objective D</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>express themselves and their relationships with others and their world</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EA11-7</b> evaluates the diverse ways texts can represent personal and public worlds and recognises how they are valued</p> <p><b>EA11-8</b> explains and evaluates cultural assumptions and values in texts and their effects on meaning</p>	<p><b>EA12-7</b> evaluates the diverse ways texts can represent personal and public worlds and recognises how they are valued</p> <p><b>EA12-8</b> explains and evaluates nuanced cultural assumptions and values in texts and their effects on meaning</p>

<p><b>Objective E</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>learn and reflect on their learning through their study of English</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EA11-9</b> reflects on, evaluates and monitors own learning and adjusts individual and collaborative processes to develop as an independent learner</p>	<p><b>EA12-9</b> reflects on, evaluates and monitors own learning and refines individual and collaborative processes as an independent learner</p>



## 11 ADVANCED ENGLISH 2025 - SCOPE AND SEQUENCE

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
<b>Term 1, 2025</b>	<b>COMMON MODULE: Reading to Write – <i>The Citizen, the Society and the Future</i></b>										
	<b>Task 1: Extended Response 30% Week 10</b>										
	<p><b>COMMON MODULE: Reading to Write</b></p> <p>This unit is a bridging unit that aims to develop critical and creative writing skills essential for success in Stage 6 English. The acquisition of these skills requires students to read a wide range of quality texts from a variety of forms. Using these texts as models, students will develop their own skills in analytical and imaginative composition.</p> <p><b>Texts:</b> <i>All Summer in a Day</i> by Ray Bradbury, ‘<i>Nobody calls me wog, anymore</i>’ by Komninos Zervos, ‘<i>To Denis (Son of Mine)</i>’ by Oodgeroo Noonuccal, ‘<i>Big Jim</i>’ by Bruce Dawe, ‘<i>Way Home</i>’ by Libby Hathorn and Gregory Rogers, <i>That Eye, The Sky</i>’ by Tim Winton</p>										

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>Term 2, 2025</b>	<b>MODULE A: Narratives that Shape Our World – <i>Narrative and Culture</i></b>									
	<b>Task 2: Extended Response 30% Week 9</b>									
	<p>In this unit students will undertake study of a range of speculative narratives across textual forms (novel, short story, film, poetry, and nonfiction), with a focus on how composers tell stories that utilise the conventions of narrative to create imagined worlds as reflections of their contextual concerns. Students will explore how these stories influence the way that individuals and societies understand themselves, and how stories have the power to challenge existing political and cultural structures and practices.</p> <p><b>Texts:</b> ‘The dominant narratives of future societies’, ‘Slap’ (short film), ‘The natural way of things’, ‘Real’ (poem), ‘The book club’, Black Comedy (TV Series), ‘Black comedy: the ABC makes a bold foray into race relations’ (article), ‘India slowly confronts epidemic of missing children’ (article), ‘Lion’ (film), ‘A Long Way Home’(novel extracts), ‘Lion’ Garth Davis’ featurette.</p> <p><b>Outcomes:</b> EA11-1, EA11-2, EA11-3, EA11-4, EA11-5, EA11-7, EA11-9</p>									

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>Term 3, 2025</b>	<b>MODULE B: Critical Study of Literature – Shakespeare</b>									
	<b>Task 3: Yearly Examination – Critical Response 40% Week 9/10</b>									
	<p>This module requires students to engage with critical analysis and evaluation of language, content and construction. They refine their own understanding and interpretations of the prescribed text and critically consider these in the light of the perspectives of others.</p> <p><b>Text:</b> <i>MacBeth</i> (William Shakespeare)</p> <p><b>Outcomes:</b> EA11-3, EA11-5, EA11-8, EA11-9</p>									



## Assessment Schedule

### English Advanced

Syllabus Outcomes	Syllabus Component Weight	Task 1: Extended Response  Common Module: Reading to Write	Task 2: Extended Response  Module A: Narratives that Shape Our World	Task 3: Yearly Examination  Critical Responses Common Module: Reading to Write Module A: Narratives that Shape Our World Module B: Critical Study of Literature
		Date: Term 1 Week 10	Date: Term 2 Week 9	Date: Term 3 Week 9/10
		Outcomes: EN11A-1 EN11A-3 EN11A-4 EN11A-5	Outcomes: EN11A-1 EN11A-2 EN11A-4 EN11A-6 EN11A-7 EN11A-8 EN11A-9	Outcomes: EN11A-1 EN11A-2 EN11A-3 EN11A-4 EN11A-5 EN11A-6 EN11A-7 EN11A-8
<b>TASK WEIGHTINGS</b>				
Knowledge & understanding of course content	50%	20%	15%	15%
Investigation... Research & enquiry... Communication of information...	50%	20%	15%	15%
<b>TOTAL</b>	<b>100%</b>	<b>40%</b>	<b>30%</b>	<b>30%</b>



## Common Module – Reading to Write

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 English Advanced and Standard
<b>Teacher:</b>	Wheeler, Donn, Lovell, Mansfield
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Common Module: Reading to Write
<b>Date Issued:</b>	Wednesday 19 <sup>th</sup> March, 2025 (Week 8, Term 1)
<b>Date and Time Due:</b>	2nd April, 2025 (Week 10, Term 1)
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	1 hour x 4 (for prep) – Maximum two drafts; final draft by COB Friday 5 <sup>th</sup> April, 2025
<b>Presentation and Submission Guidelines:</b>	<b>Extended response in class.</b>
<b>Marking Process:</b>	The task will be double marked by English teachers; verbal and written feedback provided.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
<b>Advanced</b>	
<b>EN11A-1</b>	A student responds to, composes and evaluates complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure.
<b>EN11A-3</b>	A student analyses and uses language forms, features and structures of texts considering appropriateness for specific purposes audiences and contexts, while evaluating their effects on meaning.
<b>EN11A-4</b>	A student strategically uses knowledge, skills and understanding of language concepts and literary devices in new and different contexts.
<b>EN11A-5</b>	A student thinks imaginatively, creatively, interpretively and critically to respond to, evaluate and compose texts that synthesise complex information, ideas and arguments.
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	



## Module A: Narratives that Shape Our World

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 English Advanced
<b>Teacher:</b>	Mrs Wheeler
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Module A: Narrative that Shape Our World – <i>Stories of Speculation</i>
<b>Date Issued:</b>	June 12 <sup>th</sup> Week 7, Term 2, 2025
<b>Date and Time Due:</b>	June 26 <sup>th</sup> Week 9, Term 2, 2025
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	1 hour x 4 (for prep) – Maximum two drafts; final draft by
<b>Presentation and Submission Guidelines:</b>	<b>Extended Response</b>
<b>Marking Process:</b>	The task will be double marked by English teachers; verbal and written feedback provided.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
<b>Advanced</b>	
<b>EN11A-1</b>	A student responds to, composes and evaluates complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure.
<b>EN11A-2</b>	A student uses and evaluates processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies.
<b>EN11A-4</b>	A student strategically uses knowledge, skills and understanding of language concepts and literary devices in new and different contexts.
<b>EN11A-6</b>	A student investigates and evaluates the relationships between texts.
<b>EN11A-7</b>	A student evaluates the diverse ways texts can represent personal and public worlds and recognises how they are valued.
<b>EN11A-8</b>	A student explains and evaluates cultural assumptions and values in texts and their effects on meaning
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	



## Preliminary Examination

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 English Advanced
<b>Teacher:</b>	Mrs Wheeler
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Examination
<b>Date Issued:</b>	Week 6, Term 3, 2025
<b>Date and Time Due:</b>	Weeks 9/10, Term 3, 2025
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	1 hour x 4 (for revision)
<b>Presentation and Submission Guidelines:</b>	Completed during the allocated examination period.
<b>Marking Process:</b>	The task will be double marked by English teachers; verbal and written feedback provided.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
<b>Advanced</b>	
EN11A-1	A student responds to, composes and evaluates complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure.
EN11A-2	A student uses and evaluates processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies.
EN11A-3	A student analyses and uses language forms, features and structures of texts considering appropriateness for specific purposes, audiences and contexts and evaluates their effects on meaning
EN11A-4	A student strategically uses knowledge, skills and understanding of language concepts and literary devices in new and different contexts.
EN11A-5	A student thinks imaginatively, creatively, interpretively and critically to respond to, evaluate and compose texts that synthesise complex information, ideas and arguments.
EN11A-6	A student investigates and evaluates the relationships between texts
EN11A-7	A student evaluates the diverse ways texts can represent personal and public worlds and recognises how they are valued.
EN11A-8	A student explains and evaluates cultural assumptions and values in texts and their effects on meaning.
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	



# English Standard





## Rationale for English Standard

The English Standard course is designed for students to increase their expertise in English to enhance their personal, educational, social and vocational lives. The English Standard course provides students, who have a diverse range of literacy skills, with the opportunity to analyse, study and enjoy a breadth and variety of English texts to become confident and effective communicators. English Standard offers a rich language experience that is reflected through the integrated modes of reading, writing, speaking, listening, viewing and representing.

Students engage with texts that include widely acknowledged quality literature from the past and contemporary texts from Australia and other cultures. They explore language forms, features and structures of texts in a range of academic, personal, social, historical, cultural and workplace contexts. Students study, analyse, respond to and compose texts to extend experience, access information and assess its reliability. They synthesise the knowledge gained from a range of sources to fulfil a variety of purposes. Responding to and composing texts provide students with the opportunity to appreciate the imaginative and the affective domains and to recognise the ways texts convey, interpret, question and reflect opinions and perspectives.

In their study of English students continue to develop their creative and critical faculties and broaden their capacity for cultural understanding. The course provides diverse approaches to texts so that students may become flexible and critical thinkers, capable of appreciating the variety of cultural heritages and differences that make up Australian society. They further develop skills in literacy, and independent, collaborative and reflective learning. Such skills form the basis of sound practices of investigation and analysis required for adult life, including the world of work as well as post-school training and education. The course encourages students to analyse, reconsider and refine meaning and reflect on their own processes of writing, responding, composing and learning.

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## Year 11 Course Structure and Requirements

	English Standard	Indicative hours
<b>Year 11 course (120 hours)</b>	Common module – Reading to Write: Transition to Senior English	40
	Module A: Contemporary Possibilities	40
	Module B: Close Study of Literature	40
<b>Text requirements</b>	<p>There are no prescribed texts for Year 11.</p> <p>Students are required to study ONE complex multimodal or digital text in Module A. (This may include the study of film.)</p> <p>Students are required to study ONE substantial literary print text in Module B, for example prose fiction, drama or a poetry text, which may constitute a selection of poems from the work of one poet.</p> <p>Students must study a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts.</p> <p>The Year 11 course requires students to support the study of texts with their own wide reading.</p>	

For the **English Standard Year 11** course students are required to:

- complete 120 indicative hours
- complete the common module as the first unit of work
- complete Modules A and B.

**Across Stage 6** the selection of texts **must** give students experience of the following:

- a range of types of texts inclusive of prose fiction, drama, poetry, nonfiction, film, media and digital texts.
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander Peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.



## Objectives

### Knowledge, Understanding and Skills

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- communicate through speaking, listening, reading, writing, viewing and representing
- use language to shape and make meaning according to purpose, audience and context
- think in ways that are imaginative, creative, interpretive and critical
- express themselves and their relationships with others and their world
- learn and reflect on their learning through their study of English.

### Values and Attitudes

Students value and appreciate:

- the importance of the English language as a key to learning
- the personal enrichment to be gained from a love of English, literature and learning
- the power of language to explore and express views of themselves as well as the social, cultural, ethical, moral, spiritual and aesthetic dimensions of human experiences
- the power of effective communication using the language modes of speaking, listening, reading, writing, viewing and representing
- the role of language in developing positive interaction and cooperation with others
- the diversity and aesthetics of language through literary and other texts
- the independence gained from thinking imaginatively, creatively, interpretively and critically.



## Outcomes

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### Table of Objectives and Outcomes – Continuum of Learning

<p><b>Objective A</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>• communicate through speaking, listening, reading, writing, viewing and representing*</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>EN11-1</b> responds to and composes increasingly complex texts for understanding, interpretation, analysis, imaginative expression and pleasure</p> <p><b>EN11-2</b> uses and evaluates processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies</p>	<p><b>EN12-1</b> independently responds to and composes complex texts for understanding, interpretation, critical analysis, imaginative expression and pleasure</p> <p><b>EN12-2</b> uses, evaluates and justifies processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies</p>

\*Some students with special education needs communicate through a variety of verbal or nonverbal communication systems or techniques. It is important to take account of the individual communication strategies used by these students within the context of the *English Standard Stage 6 Syllabus*.



### Objective B

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- use language to shape and make meaning according to purpose, audience and context

#### Year 11 course outcomes

A student:

**EN11-3** analyses and uses language forms, features and structures of texts, considers appropriateness for purpose, audience and context and explains effects on meaning

**EN11-4** applies knowledge, skills and understanding of language concepts and literary devices into new and different contexts

#### Year 12 course outcomes

A student:

**EN12-3** analyses and uses language forms, features and structures of texts and justifies their appropriateness for purpose, audience and context and explains effects on meaning

**EN12-4** adapts and applies knowledge, skills and understanding of language concepts and literary devices into new and different contexts



**Objective C**

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- think in ways that are imaginative, creative, interpretive and critical

**Year 11 course outcomes**

A student:

**EN11-5** thinks imaginatively, creatively, interpretively and analytically to respond to and compose texts that include considered and detailed information, ideas and arguments

**EN11-6** investigates and explains the relationships between texts

**Year 12 course outcomes**

A student:

**EN12-5** thinks imaginatively, creatively, interpretively, analytically and discerningly to respond to and compose texts that include considered and detailed information, ideas and arguments

**EN12-6** investigates and explains the relationships between texts

**Objective D**

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- express themselves and their relationships with others and their world

**Year 11 course outcomes**

A student:

**EN11-7** understands and explains the diverse ways texts can represent personal and public worlds

**EN11-8** identifies and explains cultural assumptions in texts and their effects on meaning

**Year 12 course outcomes**

A student:

**EN12-7** explains and evaluates the diverse ways texts can represent personal and public worlds

**EN12-8** explains and assesses cultural assumptions in texts and their effects on meaning



### Objective E

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- learn and reflect on their learning through their study of English

#### Year 11 course outcomes

A student:

**EN11-9** reflects on, assesses and monitors own learning and develops individual and collaborative processes to become an independent learner

#### Year 12 course outcomes

A student:

**EN12-9** reflects on, assesses and monitors own learning and refines individual and collaborative processes as an independent learner



## 11 STANDARD ENGLISH 2025 – SCOPE AND SEQUENCE

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
<b>Term 1, 2025</b>	<b>COMMON MODULE: Reading to Write (40 hours)</b>										
	<b>Task 1: Imaginative Response and Reflection 30% Week 10</b>										
	<p>This unit is a bridging unit that aims to develop critical and creative writing skills essential for success in Stage 6 English. The acquisition of these skills requires students to read a wide range of quality texts from a variety of forms. Using these texts as models, students will develop their own skills in analytical and imaginative composition.</p> <p><b>Texts:</b> <i>All Summer in a Day</i> by Ray Bradbury, 'Nobody calls me wog, anymore' by Komninos Zervos, 'To Denis (Son of Mine)' by Oodgeroo Noonuccal, 'Big Jim' by Bruce Dawe, 'Way Home' by Libby Hathorn and Gregory Rogers, <i>That Eye, The Sky</i> by Tim Winton</p>										
	<b>Outcomes</b> EN11-1, EN11-2, EN11-3, EN11-4, EN11-5, EN11-6, EN11-7, EN11-9										

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>Term 2, 2025</b>	<b>MODULE A: Contemporary Possibilities (40 hours)</b>									
	<b>Task 2: Extended Response 30% Week 9</b>									
	<p>Students extend their knowledge, understanding and appreciation of the ways that different communication technologies shape the ways that we read, navigate, understand and respond to digital, multimedia, multimodal and nonlinear texts.</p> <p><b>Texts:</b> Various texts that explore the use of digital platforms the idea of digital footprint (social media, vlogs, etc).</p>									
	<b>Outcomes:</b> EN11-1, EN11-2, EN11-3, EN11-5, EN11-7, EN11-9									

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>Term 3, 2025</b>	<b>MODULE B: Close Study of Literature (40 hours)</b>									
	<b>Task 3: Yearly Examination 40% Week 9/10</b>									
	<p>Students develop their knowledge and appreciation of a substantial literary print text. Through their close study of and personal responses to the text in its entirety, students develop an understanding of the ways that language features, text structures and stylistic choices can be used in literary texts.</p> <p><b>Text:</b> '<i>Jasper Jones</i>' by Kate Mulvany</p>									
	<b>Outcomes:</b> EN11-1, EN11-3, EN11-4, EN11-5, EN11-6, EN11-7, EN11-8									





## Assessment Schedule

### English Standard

Syllabus Outcomes ↓	Syllabus Component Weight ↓	Task 1: Imaginative and Reflection	Task 2: Extended Response	Task 3: Yearly Examination
		Common Module: Reading to Write	Module A: Contemporary Possibilities	Common Module: Reading to Write  Module A: Contemporary Possibilities  Module B: Close study of Literature
		<b>Date:</b> Term 1 Week 10	<b>Date:</b> Term 2 Week 9	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> EN11-1, EN11-2 EN11-3, EN11-4 EN11-5, EN11-6 EN11-7, EN11-9	<b>Outcomes:</b> EN11-1, EN11-2 EN11-3, EN11-5 EN11-7, EN11-9	<b>Outcomes:</b> EN11-1, EN11-3 EN11-4, EN11-5 EN11-6, EN11-7 EN11-8
<b>TASK WEIGHTINGS</b>				
Knowledge and understanding of course content	50%	15%	15%	20%
Skills in responding to texts and communication of ideas appropriate to audience, purpose and context across all modes	50%	15%	15%	20%
<b>TOTAL</b>	<b>50%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>



## Common Module: Reading to Write

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 English Advanced and Standard
<b>Teacher:</b>	Donn, Lovell, Mamin
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Common Module: Reading to Write
<b>Date Issued:</b>	Wednesday 19 <sup>th</sup> March, 2025 (Week 8, Term 1)
<b>Date and Time Due:</b>	2nd April, 2025 (Week 10, Term 1)
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	1 hour x 4 (for prep) – Maximum two drafts; final draft by
<b>Presentation and Submission Guidelines:</b>	<b>Part A – Imaginative Response:</b> To be submitted to Google Classroom <b>Part B – Reflection:</b> To be handwritten in one hour English period.
<b>Marking Process:</b>	The task will be marked by English Teachers. Written and verbal feedback will be provided by your teacher.
<b>Outcomes Assessed:</b>	
<p><b>Advanced</b> EN 11A-1, EN11A-2, EN 11A-3, EN11A-4, EN11A-5</p> <p><b>Standard</b> EN 11S-1, EN11S-2, EN11S-3, EN11S-4, EN11S-5</p>	
<b>Participant Declaration:</b>	
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>	



## Module A: Contemporary Possibilities

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary English Standard
<b>Teacher:</b>	Donn, Lovell, Mamin
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Module A – Extended Response
<b>Date Issued:</b>	June 12 <sup>th</sup> Week 7, Term 2, 2025
<b>Date and Time Due:</b>	June 26 <sup>th</sup> Week 9, Term 2, 2025
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	N/A
<b>Presentation and Submission Guidelines:</b>	<b>Written extended response</b>
<b>Marking Process:</b>	The task will be marked by English Teachers. Written and verbal feedback will be provided by your teacher.

Outcomes Assessed:	
Syllabus Code	Syllabus Description
EN11-1	responds to and composes increasingly complex texts for understanding, interpretation, analysis, imaginative expression and pleasure
EN11-2	uses and evaluates processes, skills and knowledge required to effectively respond to and compose texts in different modes, media and technologies
EN11-3	analyses and uses language forms, features and structures of texts, considers appropriateness for purpose, audience and context and explains effects on meaning
EN 11-5	thinks imaginatively, creatively, interpretively and analytically to respond to and compose texts that include considered and detailed information, ideas and arguments
EN11-7	understands and explains the diverse ways texts can represent personal and public worlds
EN11-9	reflects on, assesses and monitors own learning and develops individual and collaborative processes to become an independent learner

Participant Declaration:
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____



## Module B – Close Study of Texts

<b>Student Name:</b>	
<b>Subject/Course:</b>	English Advanced/Standard
<b>Teacher:</b>	Donn, Lovell, Mamin
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Yearly Examination
<b>Date Issued:</b>	Week 6, Term 3, 2025
<b>Date and Time Due:</b>	Weeks 9/10, Term 3, 2025
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	No
<b>Presentation and Submission Guidelines:</b>	Completed during the allocated examination period.
<b>Marking Process:</b>	The task will be marked by English Teachers. Written and verbal feedback will be provided by your teacher.
<b>Outcomes Assessed:</b>	
<p><b>Advanced</b> EA11-1, EA11-2, EA11-4, EA11-7 EA11-9</p> <p><b>Standard</b> EN11-1, EN11-3 EN11-4, EN11-5 EN11-6, EN11-7 EN11-8</p>	
<b>Participant Declaration:</b>	
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>	



# English Studies

## Assessment Schedule

### English Studies

Syllabus Outcomes â	Syllabus Component Weight â	<b>Task 1:</b> <b>Written Report</b>  Mandatory Module: Achieving through English  <b>Date:</b> Term 1 Week 10  <b>Outcomes:</b> ES11-1 ES11-4 ES11-5 ES11-6	<b>Task 2:</b> <b>Multi Modal Presentation</b>  Elective Module E: Part of a Family – English and family life  <b>Date:</b> Term 2 Week 9  <b>Outcomes:</b> ES11-2 ES11-4 ES11-6 ES11-8	<b>Task 3:</b> <b>Collection of Work – Portfolio</b>  Elective Module E: Playing the Game-English in Sport  <b>Date:</b> Term 3 Week 9/10  <b>Outcomes:</b> ES11-1 ES11-4 ES11-5 ES11-7 ES11-9 ES11-10
<b>TASK WEIGHTINGS</b>				
Knowledge & understanding of course content	50%	15%	15%	20%
Skills in comprehending texts, communicating ideas, using language accurately, appropriately and effectively	50%	15%	15%	20%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Rationale for English Studies

The English Studies course is designed to provide students with opportunities to become competent, confident and engaged communicators and to study and enjoy a breadth and variety of texts in English. English Studies focuses on supporting students to refine their skills and knowledge in English and consolidate their English literacy skills to enhance their personal, educational, social and vocational lives.

The course is distinctive in its focus on the development of students' language, literacy and literary skills. It centres on empowering students to comprehend, interpret and evaluate the ideas, values, language forms, features and structures of texts from a range of everyday, social, cultural, academic, community and workplace contexts. It offers comprehensive and contemporary language experiences in the modes of reading, writing, speaking, listening, viewing and representing. Students refine these expressive language skills, responding to and composing a wide variety of oral, written and multimodal texts, including literary, digital and media texts.

Students strengthen their ability to access and comprehend information, to assess its reliability, and to synthesise knowledge gained from a variety of sources. Through its structured and focused approach to responding to and composing texts, the English Studies course also provides students with opportunities to develop in and to appreciate the imaginative and affective spheres and to recognise how texts convey, interpret and reflect ways of thinking about oneself and the world.

The English Studies course also provides diverse approaches to texts so that students may become flexible and critical thinkers, capable of engaging with, understanding and appreciating the variety of cultural heritages and differences that make up Australian and global societies. It also encourages the continued development of skills in literacy, individual and collaborative processes and reflective learning. Such skills form the basis of investigation and analysis required for the world of work, as well as post-school training and education.

## Year 11 Course Structure and Requirements

Year 11 course (120 hours)	English Studies	Indicative hours
	Mandatory module – Achieving through English – English in education, work and community	30–40 hours
	An additional 2–4 modules to be studied	20–40 hours each
<b>Text requirements</b>	<p>In <b>Year 11</b> students are required to:</p> <ul style="list-style-type: none"> <li>● read, view, listen to and compose a <b>wide range of texts</b> including print and multimodal texts</li> <li>● study at least one substantial print text (for example a novel, biography or drama)</li> <li>● study at least one substantial multimodal text (for example film or a television series).</li> </ul> <p><b>Across Stage 6</b> the selection of texts must give students experiences of the following as appropriate:</p> <ul style="list-style-type: none"> <li>● reading, viewing, listening to and composing a wide range of texts, including literary texts written about intercultural experiences and peoples and cultures of Asia</li> <li>● Australian texts including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander Peoples</li> <li>● texts with a wide range of cultural, social and gender perspectives, popular and youth cultures</li> <li>● a range of types of text drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts.</li> </ul>	
<b>Additional requirements</b>	<p>In Year 11 students are <b>required</b> to:</p> <ul style="list-style-type: none"> <li>● be involved in planning, research and presentation activities as part of one individual and/or collaborative project</li> <li>● develop a portfolio of texts they have planned, drafted, edited and presented in written, graphic and/or electronic forms across all the modules undertaken during the year</li> <li>● engage with the community through avenues for example visits, surveys, interviews, work experience, listening to guest speakers and/or excursions.</li> </ul>	

For the **English Studies Year 11** course:

- students complete 120 indicative hours
- students study the mandatory module, Achieving through English – English in education, work and community
- students complete the mandatory module, Achieving through English, as the first unit of work



- students complete an additional 2–4 modules from the elective modules provided (1 may be school-designed), considering factors such as students' needs, interests, abilities, choices of other Year 11 and Year 12 courses, career aspirations and personal circumstances school-designed modules should be based on the framework of the modules outlined in this syllabus.

## Objectives

### Knowledge, Understanding and Skills

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- communicate through speaking, listening, reading, writing, viewing and representing
- use language to shape and make meaning according to purpose, audience and context
- think in ways that are imaginative, creative, interpretive and critical
- express themselves and their relationships with others and their world
- learn and reflect on their learning through their study of English.

### Values and Attitudes

Students value and appreciate:

- the importance of the English language as a key to learning
- the personal enrichment to be gained from a love of English, literature and learning
- the power of language to explore and express views of themselves as well as the social, cultural, ethical, moral, spiritual and aesthetic dimensions of human experiences
- the power of effective communication using the language modes of speaking, listening, reading, writing, viewing and representing
- the role of language in developing positive interaction and cooperation with others
- the diversity and aesthetics of language through literary and other texts
- the independence gained from thinking imaginatively, creatively, interpretively and critically.

# Outcomes

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## Table of Objectives and Outcomes – Continuum of Learning

<p><b>Objective A</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>• communicate through speaking, listening, reading, writing, viewing and representing*</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>ES11-1</b> comprehends and responds to a range of texts, including short and extended texts, literary texts and texts from academic, community, workplace and social contexts for a variety of purposes</p> <p><b>ES11-2</b> identifies and uses strategies to comprehend written, spoken, visual, multimodal and digital texts that have been composed for different purposes and contexts</p> <p><b>ES11-3</b> gains skills in accessing, comprehending and using information to communicate in a variety of ways</p> <p><b>ES11-4</b> composes a range of texts with increasing accuracy and clarity in different forms</p>	<p><b>ES12-1</b> comprehends and responds analytically and imaginatively to a range of texts, including short and extended texts, literary texts and texts from academic, community, workplace and social contexts for a variety of purposes</p> <p><b>ES12-2</b> identifies, uses and assesses strategies to comprehend increasingly complex and sustained written, spoken, visual, multimodal and digital texts that have been composed for different purposes and contexts</p> <p><b>ES12-3</b> accesses, comprehends and uses information to communicate in a variety of ways</p> <p><b>ES12-4</b> composes proficient texts in different forms</p>

\*Some students with special education needs communicate through a variety of verbal or nonverbal communication systems or techniques. It is important to take account of the individual communication strategies used by these students within the context of the *English Studies Stage 6 Syllabus*.

**Objective B**

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- use language to shape and make meaning according to purpose, audience and context

**Year 11 course outcomes**

A student:

**ES11-5** develops knowledge, understanding and appreciation of how language is used, identifying specific language forms and features that convey meaning in texts

**ES11-6** uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes

**Year 12 course outcomes**

A student:

**ES12-5** develops knowledge, understanding and appreciation of how language is used, identifying and explaining specific language forms and features in texts that convey meaning to different audiences

**ES12-6** uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes

**Objective C**

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- think in ways that are imaginative, creative, interpretive and critical

**Year 11 course outcomes**

A student:

**ES11-7** represents own ideas in critical, interpretive and imaginative texts

**ES11-8** identifies and describes relationships between texts

**Year 12 course outcomes**

A student:

**ES12-7** represents own ideas in critical, interpretive and imaginative texts

**ES12-8** understands and explains the relationships between texts

**Objective D**

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:

- express themselves and their relationships with others and their world

**Year 11 course outcomes**

A student:

**Year 12 course outcomes**

A student:

<p><b>Objective D</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>• express themselves and their relationships with others and their world</li> </ul>	
<p><b>ES11-9</b> identifies and explores ideas, values, points of view and attitudes expressed in texts, and considers ways in which texts may influence, engage and persuade</p>	<p><b>ES12-9</b> identifies and explores ideas, values, points of view and attitudes expressed in texts, and explains ways in which texts may influence, engage and persuade different audiences</p>
<p><b>Objective E</b></p> <p>Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to:</p> <ul style="list-style-type: none"> <li>• learn and reflect on their learning through their study of English</li> </ul>	
<p><b>Year 11 course outcomes</b></p> <p>A student:</p>	<p><b>Year 12 course outcomes</b></p> <p>A student:</p>
<p><b>ES11-10</b> monitors and reflects on aspects of their individual and collaborative processes in order to plan for future learning</p>	<p><b>ES12-10</b> monitors and reflects on own learning and adjusts individual and collaborative processes to develop as a more independent learner</p>

## Yr11 ENGLISH STUDIES (PRELIMINARY) 2025

### SCOPE AND SEQUENCE

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1, 2025	<b>MANDATORY MODULE: Achieving Through English: English and the worlds of education, careers and community</b>									
	<b>Assessment Task – 30% (Report) Week 9</b>									
	Through study of the module <i>Achieving through English – English and the worlds of education, careers and community</i> students will gain understanding and practical competence in the use of language that allows access to opportunities in schooling, training and employment. Students will learn how to use English accurately, effectively and appropriately in their senior studies and further education and for other practical purposes, such as applying for employment.									
	<i>Prescribed text: <b>The Pursuit of Happyness</b> dir. by Gabriele Muccino (film)</i> Focus outcomes: ES-11-1, 11-4, 11-5, 11-6									
Term 2, 2025	<b>MODULE H: Part of a Family – English and family life</b>									
	<b>Assessment Task – 30% (Multimodal Presentation) Week 10</b>									
	Through study of the module <i>Part of a Family – English and family life</i> students will develop their understanding of, and proficiency in, the use of language related to the nature of families, the roles of family within communities as well as their representations in text.									
	<i>Prescribed text: <b>The Story of Tom Brennan</b> by JC Burke (pf)</i> Focus outcomes: ES11-2, 11-4, 11-6, 11-8									
Term 3, 2025	<b>MODULE E: Playing the Game – English in Sport</b>									
	<b>Assessment Task – 40% (Portfolio) Week 9/10</b>									
	Through the study of the module <i>Playing the Game – English in Sport</i> students develop understanding and proficiency in the use of language related to recreational and professional sport at a local, national and international level.									
	<i>Prescribed text: <b>The Club</b> by David Williamson (drama)</i> Focus outcomes: ES11-1, 11-4, 11-5, 11-7, 11-9, 11-10									

## Preliminary HSC texts 2025

**Mandatory Module: Achieving through English: English and the worlds of education, careers and community**

Film – Gabriele Muccino, *The Pursuit of Happyness*

**MODULE 2: Part of a Family – English and family life**

Prose Fiction – JC Burke, *Tom Brennan*

**Module 3: Playing the Game – English in Sport**

Drama – David Williamson, *The Club*

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary English Studies
<b>Teacher:</b>	Friend, Hollier
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Mandatory Module – Achieving Through English – English and the worlds of education, careers and community
<b>Date Issued:</b>	Wednesday 19th March, 2025 (Week 8, Term 1)
<b>Date and Time Due:</b>	2nd April, 2025 (Week 10, Term 1)
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Yes – 7 lessons
<b>Presentation and Submission Guidelines:</b>	Complete the form and response to be handed in on the due date.
<b>Marking Process:</b>	Teachers of English Studies will be marking this task.
<b>Outcomes Assessed:</b>	
Syllabus Code	Syllabus Description
ES11-1	a student comprehends and responds to a range of texts, including short and extended texts, literary texts and texts from academic, community, workplace and social contexts for a variety of purposes
ES11-4	a student composes a range of texts with increasing accuracy and clarity in different forms
ES11-5	a student develops knowledge, understanding and appreciation of how language is used, identifying specific language forms and features that convey meaning in texts
ES11-6	a student uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____	

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary English Studies (11)
<b>Teacher:</b>	Friend, Hollier
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	<b>Module 2 – Part of a Family – English and family life</b>
<b>Date Issued:</b>	June 12 <sup>th</sup> Week 7, Term 2, 2025
<b>Date and Time Due:</b>	June 26 <sup>th</sup> Week 9, Term 2, 2025
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Yes
<b>Presentation and Submission Guidelines:</b>	Task is a Powerpoint and will be submitted online (through Google classroom) on the due date.
<b>Marking Process:</b>	Teachers of English Studies will be marking this task.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
ES11-2	A student identifies and uses strategies to comprehend written, spoken, visual, multimodal and digital texts that have been composed for different purposes and contexts.
ES11-4	A student composes a range of texts with increasing accuracy and clarity in different forms .
ES11-6	A student uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes.
ES11-8	A student identifies and describes relationships between texts.
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	



<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary English Studies (11)
<b>Teacher:</b>	Friend, Hollier
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Collection of Classwork
<b>Date Issued:</b>	Week 6, Term 3, 2025
<b>Date and Time Due:</b>	Weeks 9/10, Term 3, 2025
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Yes
<b>Presentation and Submission Guidelines:</b>	Task is a Collection of Classwork from the last three modules studied in Year 11. Please refer to attached list of tasks required to complete this assessment. Tasks can be uploaded to the Google Classroom or handed to class teacher.
<b>Marking Process:</b>	Teachers of English Studies will be marking this task.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
ES11-4	A student composes a range of texts with increasing accuracy and clarity in different forms
ES11-6	A student uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes
ES11-7	A student represents own ideas in critical, interpretive and imaginative texts
ES11-9	A student identifies and explores ideas, values, points of view and attitudes expressed in texts, and considers ways in which texts may influence, engage and persuade
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	

## Objective A

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to communicate through speaking, listening, reading, writing, viewing and representing.

### Outcome 1

#### A student:

- › comprehends and responds to a range of texts, including short and extended texts, literary texts and texts from academic, community, workplace and social contexts for a variety of purposes ES11-1

**Related Life Skills outcomes:** ENLS6-1, ENLS6-2, ENLS6-3

#### Content

Students:

Engage personally with texts

- engage with a broadening range of texts that incorporate increasing levels of language complexity
- identify the main ideas and purposes of texts
- recognise implicit meanings to draw inferences
- integrate new ideas and information with existing understanding

Understand the connections between language, context and meaning

- recognise the ways that social, community and workplace texts are constructed for particular purposes, audiences and contexts (ACEEE005) 📖🗣️👥🌟
- identify and describe elements of literary texts, for example characterisation, narrative, tone, description and setting
- develop criteria to evaluate the effectiveness of a text or its ideas
- investigate how complex sentences can be used in a variety of ways to elaborate, extend and explain ideas (ACELA1522) 🌟

Respond to and compose texts

- summarise ideas and information presented in texts (ACEEE017)
- select the most appropriate form of text to communicate information and ideas effectively, for example a memo, dialogue or a poem
- discuss the ideas, themes and emotions represented in literary texts 🗣️
- compose a range of texts in a variety of modes and media using the appropriate language and structures 🌟

## Objective A

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to communicate through speaking, listening, reading, writing, viewing and representing.

## Outcome 2

### A student:

- › identifies and uses strategies to comprehend written, spoken, visual, multimodal and digital texts that have been composed for different purposes and contexts ES11-2

**Related Life Skills outcomes:** ENLS6-4

## Content

Students:

Engage personally with texts

- locate and extract information and ideas from texts to assist comprehension, for example skim read for general sense and scan for key information (ACEEE008) ⚙️ 📄 ⚙️
- predict meaning using text structures and language features (ACEEE002) ⚙️

Understand the connections between language, context and meaning

- use and interpret structural and language features, for example visual and aural cues, to identify main ideas, supporting arguments and evidence (ACEEE001, ACEEE015) ⚙️ 📄 📄
- understand an increasing number of unfamiliar words, recognising that some words and phrases have figurative meanings
- interpret graphs, tables and charts used in texts

Respond to and compose texts

- compose texts with an awareness of varying language to meet the requirements of audience, purpose and context
- use writing as a tool to identify issues and express ideas
- use dictionaries and other resources to determine or clarify the meaning of unfamiliar words

## Objective A

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to communicate through speaking, listening, reading, writing, viewing and representing.

## Outcome 3

### A student:








- › gains skills in accessing, comprehending and using information to communicate in a variety of ways ES11-3

**Related Life Skills outcomes:** ENLS6-5






## Content

Students:



Engage personally with texts

- access and investigate texts in the course of preparation for discussion, interviews and reports, and for individual and collaborative research projects   ★
- locate and select information from a range of sources (ACEEE022)    
- reflect on the relevance and usefulness of each source (ACEEE023) 

Understand the connections between language, context and meaning

- select text structures, language and visual features to communicate and represent ideas and information (ACEEE026) ★
- distinguish between facts and opinions presented in texts 
- recognise and use ethical research practices (ACEEE038)    ★
- recognise the way structure and register may change according to the purpose, audience and context
- understand that the coherence of more complex texts relies on devices that signal text structure and guide readers, for example overviews, initial and concluding paragraphs and topic sentences, indexes or site maps or breadcrumb trails for online texts  ★

Respond to and compose texts

- use different strategies for finding information, for example taking notes to summarise and/or paraphrase information (ACEEE024)  ★
- demonstrate control of most distinguishing linguistic structures and features of a broad range of written and oral texts, for example reports, discussions, procedures and narratives ★
- categorise ideas and information about specific themes or ideas (ACEEE037) 
- describe the effects of using multimodal and digital conventions, for example navigation, sound and image (ACEEN026)

## Objective A

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to communicate through speaking, listening, reading, writing, viewing and representing.

### Outcome 4

#### A student:

› composes a range of texts with increasing accuracy and clarity in different forms ES11-4

**Related Life Skills outcomes:** ENLS6-6

### Content

Students:

Engage personally with texts

- engage with a range of texts as stimuli and models for their own compositions in various forms, in academic, everyday, social, community and workplace contexts 🗣️ ⭐
- study short literary texts, or extracts of literary texts, as models and stimulus points for their own imaginative expression ⚙️ 🗣️

Understand the connections between language, context and meaning

- identify contexts and audiences of texts and reflect on how these might relate to their own developing compositions ⚙️ 🗣️
- understand how cohesion in texts is improved by strengthening the internal structure of paragraphs through the use of examples, quotations and substantiation of claims (ACELA1766)
- describe the forms and conventions of texts created in different modes and media including visual and digital texts (ACEEA018) 🗣️
- understand the contemporary application of Aboriginal cultural protocols in the production of texts in order to protect Indigenous cultural and intellectual property 🗣️

Respond to and compose texts

- use appropriate language, content and mode for different purposes and audiences, for example in everyday, social, community and workplace contexts (ACEEE011) 🗣️ 🗣️ 🗣️ 🗣️ ⭐
- select text structures, language features and visual techniques to represent ideas and information (ACEEE026) ⚙️ 🗣️ ⭐
- use language expressively and imaginatively in response to a range of texts
- use complex and compound sentences
- use a range of tenses accurately and consistently
- sequence writing to produce a cohesive text ⭐
- recognise ways that drafts of texts can be enhanced, for example by reviewing and amending vocabulary, spelling, punctuation, sentence structure, paragraphs, cohesion, presentation 🗣️ ⭐
- plan, draft, edit and proofread their own texts for 'publication' in a portfolio of work (ACEEE014) 🗣️ 🗣️ ⭐

## Objective B

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to use language to shape and make meaning according to purpose, audience and context.

## Outcome 5

### A student:

- › develops knowledge, understanding and appreciation of how language is used, identifying specific language forms and features that convey meaning in texts ES11-5

**Related Life Skills outcomes:** ENLS6-7

## Content

Students:

Engage personally with texts

- engage with a range of increasingly complex language forms, features and structures of texts in meaningful, contextualised and authentic ways

Understand the connections between language, context and meaning

- recognise the text structures and language features of texts, for example visual and aural cues, to differentiate between main ideas, supporting arguments and evidence (ACEEE001)
- understand that words and grammatical choices may vary in meaning depending on the context of use
- recognise and describe the differences in formal and informal register
- investigate the aesthetic effects of the use of specific language features and techniques in a variety of literary and multimodal texts ✨
- understand and respect that Aboriginal language dialects and Aboriginal English are expressions of cultural heritage and identity 🙌👉

Respond to and compose texts

- compose structured texts that describe and explain the ways language features, text structures and stylistic choices have been used in texts
- use language with increasing accuracy to communicate own ideas in a variety of contexts ✨
- experiment with vocabulary, register and modality to create texts for different audiences
- use grammatical features, for example pronouns, conjunctions and connectives, to accurately link ideas and information to ensure meaning when composing texts
- use punctuation as an aid to understanding for example capitalisation, full stops, commas, apostrophes, question marks and quotation marks
- develop and use appropriate vocabulary and skills in using accurate spelling, effective punctuation and grammar for specific effects (ACEEE013, ACEEE027, ACEEE041, ACEEE055) ✨

## Objective B

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to use language to shape and make meaning according to purpose, audience and context.

### Outcome 6

#### A student:


- › uses appropriate strategies to compose texts for different modes, media, audiences, contexts and purposes ES11-6

**Related Life Skills outcomes:** ENLS6-8




### Content

Students:






Engage personally with texts

- explore a wide range of different types of texts to identify different strategies and styles of composing 
- form opinions on the effectiveness of particular types of texts in achieving their purposes

Understand the connections between language, context and meaning

- recognise the similarities and differences between the language features, text structures and stylistic choices used in a range of texts composed for different purposes, audiences and contexts
- develop understanding of the ways texts are structured to organise information, for example hyperlinks, chapter headings and indexes (ACEEE009)   

Respond to and compose texts

- use text structures and language features to communicate ideas and information in a range of media and digital technologies, for example explaining workplace procedures, using navigation bars to create a web page, and developing a character's back story (ACEEE012, AAEEE026)   
- draw on a broadening vocabulary to use language with increasing control for particular effects
- edit work to improve clarity, accuracy and expressiveness in their use of language  

## Objective C

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to think in ways that are imaginative, creative, interpretive and critical.

### Outcome 7

#### A student:

› represents own ideas in critical, interpretive and imaginative texts ES11-7

**Related Life Skills outcomes:** ENLS6-9

### Content

Students:

Engage personally with texts

- explore ideas and perspectives in a range of texts in a variety of forms and media, including written, oral and multimodal texts, in order to develop their own ideas and interpretations 🗣️🌐📺🌟
- engage with literary texts that represent ideas through imaginative and expressive language 🗣️🌐📺

Understand the connections between language, context and meaning

- critique a variety of texts and consider how language features, text structures and stylistic choices are selected and used to convey meaning 🗣️🌐📺

Respond to and compose texts

- select text structures, language features and visual techniques to communicate and represent ideas and information for different contexts and purposes, for example write diary entries of real or imagined people, create interactive websites, participate in workplace role plays and script fictional dialogues (ACEEE034) 🌟
- use persuasive, visual and literary techniques to engage audiences in a range of modes, media and contexts (ACEEE025) 🗣️🌐📺
- show how ideas and points of view in texts are conveyed through the use of vocabulary, for example idiomatic expressions, objective and subjective language, and that these can change according to context



## Objective C

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to think in ways that are imaginative, creative, interpretive and critical.

### Outcome 8

#### A student:





- › identifies and describes relationships between texts ES11-8

**Related Life Skills outcomes:** ENLS6-10







### Content

Students:








Engage personally with texts

- explore the differing or comparable ways in which a number and variety of texts represent or respond to a topic or theme   
- investigate and start to synthesise ideas and information from a range of source material (ACEEE050) 

Understand the connections between language, context and meaning

- investigate the relationships between context, purpose and audience and the impact on meaning in social, community and workplace texts (ACEEE033)   
- investigate the use of media, types of texts, text structures and language features, for example the use of statistics and graphs in advertisements and choice of colour and font style in websites (ACEEE034)   
 

Respond to and compose texts

- compose short structured responses that compare and contrast ways in which a topic or theme is represented in different texts   
- understand the ways connections can be made between ideas in texts
- develop a personal voice and adopt different points of view to influence audiences in a range of media and digital technologies (ACEEE039)   
- use explicit strategies to organise and make connections between information and ideas in different texts, for example underline main points or draw sequencing diagrams 

## Objective D

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to express themselves and their relationships with others and their world.

### Outcome 9

#### A student:

- › identifies and explores ideas, values, points of view and attitudes expressed in texts, and considers ways in which texts may influence, engage and persuade ES11-9

**Related Life Skills outcomes:** ENLS6-11

### Content

Students:

Engage personally with texts

- appreciate the power of language to convey ideas, values and attitudes and how it can be used to influence and engage an audience ✨ 🗣️
- explore the ways community, local or global issues are represented in social, community, workplace or literary texts, including those by and about Aboriginal and/or Torres Strait Islander Peoples (ACEEE047) 🗣️ ✨ 🌐 🗣️

Understand the connections between language, context and meaning

- consider the use of narrative and other techniques in literary texts to represent ideas, values attitudes or points of view, for example characterisation and dialogue in novels and films, avatars in multiplayer video games and first person narrator (ACEEE035) ✨ 🗣️
- explore the use of narrative features, for example point of view in film, fiction and video games (ACEEE007) ✨ 🗣️
- explore the ways text structures and language features are used to influence audiences, for example image selection in websites, emotive language in speeches or films, stereotypes in video games and vocabulary choices in advertisements (ACEEE006) 🗣️ ✨ 🗣️ 🗣️ 🗣️ 🗣️ 🗣️

Respond to and compose texts

- identify and describe the similarities and differences between own responses to texts and the responses of others (ACEEE018) 🗣️ 🗣️
- explain shifts in intonation and point of view, identifying the effect of language choices on an audience (ACEEE032) ✨
- compose their own persuasive and imaginative texts, using a variety of language and multimedial forms and features to present attitudes, values, perspectives and points of view ✨ 🗣️ 🗣️ 🗣️ 🗣️

## Objective E

Through responding to and composing a wide range of texts and through the close study of texts, students develop knowledge, understanding and skills in order to learn and reflect on their learning through their study of English.

### Outcome 10

#### A student:

- › monitors and reflects on aspects of their individual and collaborative processes in order to plan for future learning ES11-10

**Related Life Skills outcomes:** ENLS6-12

### Content

Students:

Engage personally with texts

- identify the various ways they approach their learning in English 🌟 📖
- monitor their own learning in English and start to assess their own strengths and weaknesses
- use ICT tools strategically to support learning
- Understand the connections between language, context and meaning
- use and understand the value of writing as a reflective tool 🌟
- identify own and others' roles in a group or team and make an active contribution to improve learning outcomes
- Respond to and compose texts
- create texts reflecting on their own learning, considering how individual and collaborative processes can be used to ensure better learning outcomes 📖 🌟
- use constructive feedback from others to improve learning, including their composing and responding 📖 🌟 🌟
- develop a sequenced plan for a specific task with prioritised steps and some attention to timelines



**Geography**



# Hunter River High School

## Preliminary Geography 2025

### Assessment Booklet

Geography is the study of places and the relationships between people and their environments. It is a rich and complex discipline that integrates knowledge from natural sciences, social sciences and humanities to build a holistic understanding of the world. Students learn to question why the world is the way it is, reflect on their relationships with and responsibilities for the world and propose actions designed to shape a socially just and sustainable future. Geography emphasises the role, function and importance of the environment in supporting human life from local to global scales. It also emphasises the important interrelationships between people and environments and the different understandings of these relationships. The wellbeing of societies and environments depends on the quality of interactions between people and the natural world.

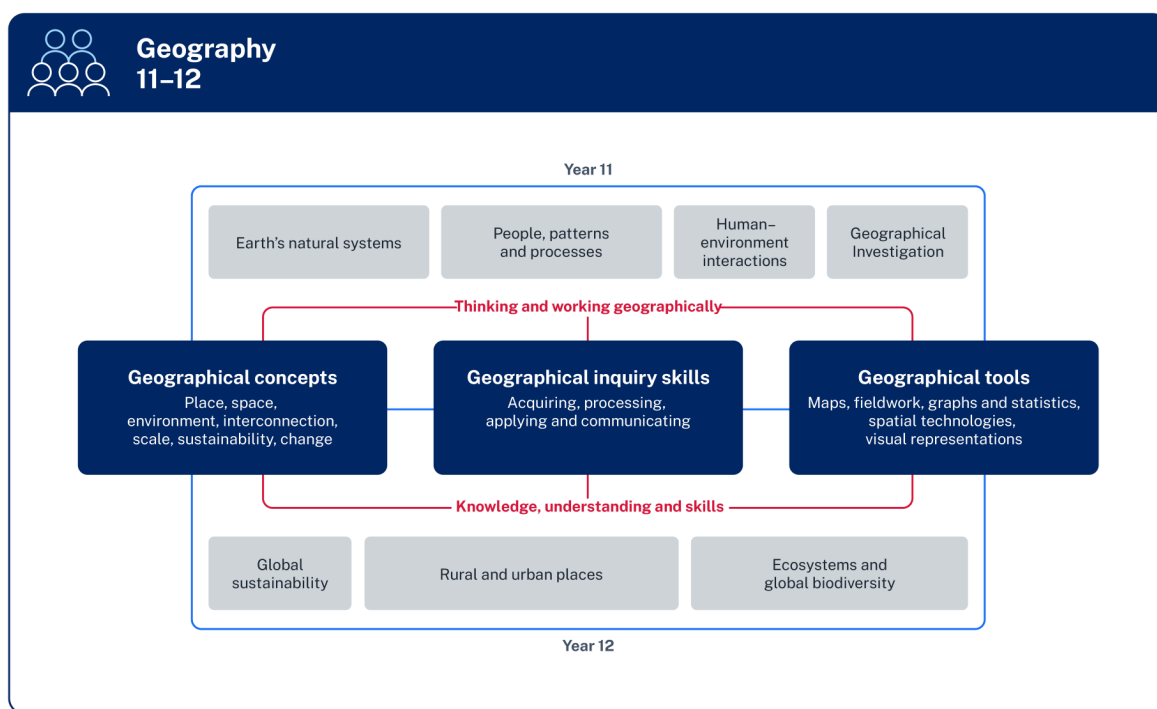
Geographical inquiry involves students acquiring, processing and communicating geographical information. Through an inquiry approach students explain patterns, evaluate consequences and contribute to the management of places and environments in an increasingly complex world. This process enables them to apply inquiry skills including: asking distinctively geographical questions; planning an inquiry and evaluating information; processing, analysing and interpreting that information; reaching conclusions based on evidence and logical reasoning; evaluating and communicating their findings; and reflecting on their inquiry and responding, through action, to what they have learned. Engagement in fieldwork and the use of other tools including mapping and spatial technologies are fundamental to geographical inquiry.

The study of Geography enables students to become active, responsible and informed citizens able to evaluate the opinions of others and express their own ideas and arguments. This forms a basis for active participation in community life, a commitment to sustainability, the creation of a just society, and the promotion of intercultural understanding and lifelong learning. The skills and capabilities developed through geographical study can be applied to further education, work and everyday life.

The following document outlines the course structure, scope and sequence as well as the specific teaching and learning activities to be completed in the Year 11 Geography Course. Any adjustments to the course to differentiate the learning experience for students with learning needs will be added to the teaching and learning activities where necessary.

## The Structure of Geography

This is a diagram outlining the organisation of content for the *Geography 11–12 Syllabus*. Along the top are the focus areas Earth’s natural systems, People, patterns and processes, Human–environment interactions, and Geographical Investigation, labelled as Year 11. At the bottom are the focus areas Global sustainability, Rural and urban places, and Ecosystems and global biodiversity, labelled as Year 12. In the middle is Geographical concepts, Geographical inquiry skills and Geographical tools. A line connects the 3 labelled ‘Thinking and working geographically’ on the top and ‘Knowledge, understanding and skills’ on the bottom.



### Year 11 course structure and requirements

The Year 11 course is structured to provide students with opportunities to develop and apply their understanding of the geographical concepts of place, space, environment, interconnection, scale, sustainability and change. Students investigate natural systems; people, patterns and processes; and human–environment interactions. They develop an understanding of the nature and value of geographical inquiry through planning and conducting a geographical investigation.

### Year 11 course (120 hours)

The course comprises 4 focus areas and students are required to study all 4.

Focus areas	Indicative hours
<i>Earth’s natural systems</i>	40
<i>People, patterns and processes</i>	40
<i>Human–environment interactions</i>	20
<i>Geographical Investigation</i>	20

## **Geographical inquiry skills and tools**

The geographical inquiry skills and tools content is to be integrated throughout the course. The focus areas and studies provide the contexts for developing and applying inquiry skills and tools.

The geographical tools are to be integrated with the content of the Year 11 course. Students are to develop an understanding of the purpose and value of particular tools and how they can be used; ie their real-world applications.

A broad range of geographical tools should be integrated into each Year 11 focus area as appropriate. The application of tools in geographical inquiry will depend on the nature of the investigations conducted by students.

If required, selected tools should be accessible for students with disability, eg tactile maps, accessible choropleth maps for colour-blind students, and tactile photography.

## **Fieldwork**

Twelve (12) hours of fieldwork are mandatory for the Year 11 course. Fieldwork may be integrated within one or more of the following focus areas – Earth’s natural systems; People, patterns and processes; Human–environment interactions, as appropriate.

Some students with disability may require [adjustments](#) and/or additional support to engage in fieldwork.

When conducting fieldwork that involves people, ethical practices such as adherence to intellectual property (IP) rights must be considered. If fieldwork is proposed for Aboriginal sites, or is about Aboriginal and/or Torres Strait Islander Peoples and cultural heritage, Indigenous cultural and intellectual property (ICIP) is an ethical consideration.

In such cases, participants should be familiar with a range of cultural protocols for working with Aboriginal communities and ensure appropriate consultation occurs with local communities and education consultants. For more information refer to [Aboriginal and Torres Strait Islander principles and protocols](#).

## **Learning across the curriculum**

The content includes opportunities for students to investigate Aboriginal and Torres Strait Islander histories and cultures, Asia and Australia’s engagement with Asia, and Sustainability. Study of Aboriginal and Torres Strait Islander histories and cultures, and Asia and Australia’s engagement with Asia must be included in Stage 6, and can be integrated flexibly and in different ways.

The syllabus includes references to Indigenous, Indigenous Peoples, Indigenous cultures and Indigenous practices. These terms are used when referring collectively to the first peoples of the land in international contexts. Sustainability is included within syllabus content for Geography Stage 6.

## **Applying geography in the contemporary world**

Students are to develop an appreciation of the relevance of geographical understanding to particular professions and to responsible management, in the context of each Year 11 focus area. This may be done flexibly and in different ways.

## **Earth’s natural systems**

Students investigate the diverse landscapes of the Earth’s surface and its distinctive physical features. They examine the cycles, circulations, interconnections and spatial patterns that combine to form the Earth’s integrated system, and investigate natural processes, cycles and circulations that change the Earth’s land and water cover.

This focus area includes an overview of the uniqueness and diversity of the Earth. It is intended to provide a broad perspective as a context for studying the focus area. Allocate a maximum of 4 hours to this part of the focus area.

### **People, patterns and processes**

Students investigate evidence of human diversity across the Earth's surface. They examine the spatial patterns and extent of the human footprint, and the human transformations shaping those patterns.

Students investigate the unique character of places and how various human processes are shaping them, through ONE of the following:

- human resilience in diverse environments
- local places and global economic change
- place and cultural change
- political power and contested spaces
- technological advances and the transformation of places.

The study selected must not significantly overlap or duplicate studies selected for Year 12.

This focus area includes an overview of the diversity and extent of human activity. The overview is intended to provide a big-picture perspective as a context for studying the focus area. Allocate a maximum of 4 hours to this part of the focus area.

### **Human–environment interactions**

Students investigate the global nature of land cover change, from temporal and spatial perspectives, as they examine the long-term development of natural systems compared to the short time frame of human activity. They investigate evidence for, and causes of, climate change, as well as the role of humans in contributing to land cover change.

Students investigate the interaction between the Earth's natural systems and people through the study of ONE of the following:

- a geographic region
- a contemporary hazard
- climate change.

The study selected must not significantly overlap or duplicate studies selected for Year 12.

This focus area includes an overview of change to the Earth's natural systems over time. The overview is intended to provide a big-picture perspective as a context for studying the focus area. Allocate a maximum of 3 hours to this part of the focus area.

### **Geographical Investigation**

Students plan and conduct ONE Geographical Investigation to develop their understanding of the nature of geographical inquiry through practical research and applying geographical concepts, skills and tools.

Further information about the investigation is provided in the Geographical Investigation section of this syllabus.



## Aims and Objectives

The study of Geography in Stage 6 enables students to:

- develop knowledge and understanding of natural and human processes, how they interact and affect each other, and how places and environments can be managed for sustainability
- apply geographical inquiry skills and tools, including fieldwork
- develop a lifelong interest in the study of geography
- prepare for informed, responsible and active citizenship in the contemporary world.

## Preliminary Outcomes

Year 11		
<b>GE-11-01</b> examines places, environments and natural and human phenomena, for their characteristics, spatial patterns, interactions and changes over time	<b>GE-11-02</b> explains geographical processes and influences, at a range of scales, that form and transform places and environments	<b>GE-11-03</b> explains geographical opportunities and challenges, and varying perspectives and responses
<b>GE-11-04</b> assesses responses and management strategies, at a range of scales, for sustainability	<b>GE-11-05</b> analyses and synthesises relevant geographical information from a variety of sources	<b>GE-11-06</b> identifies geographical methods used in geographical inquiry and their relevance in the contemporary world
<b>GE-11-07</b> applies geographical inquiry skills and tools, including spatial technologies, fieldwork, and ethical practices, to investigate places and environments	<b>GE-11-08</b> applies mathematical ideas and techniques to analyse geographical data	<b>GE-11-09</b> communicates and applies geographical understanding, using geographical knowledge, concepts, terms and tools, in appropriate forms

# Stage 6 Geography | Stage 6 | 2025

This is the new Stage 6 Geography Scope and Sequence that is to be implemented from 2024. This program contains the focal points for the Year 11 and Year 12 course. Within the program specific teaching a learning activities and resources are elicited to.

## Year 11 Geography Scope and Sequence

Term 1 - 10 weeks

Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9	Week10
Course Organisation and welcome to Senior Geography	Nature as a source of wonder  People's connection to the natural world and why it can vary	The universal value of earths environments	Earth's Natural Systems and Factors Affecting the functioning, processes, cycles and circulation	Atmospheric systems	Hydrological systems	Geomorphic systems	Ecological systems	The nature and extent of land cover  Natural Processes, Cycles and Circulations the Change Earth's land and water cover	Case Study of a place where processes, cycles and circulations have shaped the natural world
Earth's Natural Systems									

Term 2 - 10 weeks 1 day

Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9	Week10	Week 11
Acquiring geographical information	Processing geographical information	Human activity on our planet (settlement, infrastructure, agriculture and production)  Spatial patterns related to culture  The increasingly integrated nature of the world	The characteristics, growth and distribution of the world's population, including trends, rates of change and density  Influences that shape global population change	Challenges arising from population change – environmental, economic and social	Population Characteristics Case Studies  Case Study 1: Japan  Case Study 2: Niger	People, patterns and processes study  Option 3 Place and Cultural Change	Case Study: A European Lifestyle  Influences on culture of place: The media	Influences on culture of place: Fashion  Influences on culture of place: Brand Image  Influences on culture of place: Sport and Music	The impact of change and responses to it	(Only 1 day)
Geographical Investigation		People, Patterns and Processes								

Term 3 - 10 weeks

Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9	Week10
Case Study on Culture of Place: Dubai	Revision of topic: application and consolidation tasks	Applying and communicating geographical understanding	Applying and communicating geographical understanding	Contemporary natural hazards: Bushfires  Location and features of the hazard	The physical forces of the hazard  Case Study: Global Wildfires	Bushfire Mitigation Strategies	Responses to the bushfire crisis	Revision for Preliminary Exams	Preliminary Exams
People, Patterns and Processes		Geographical Investigation		Human-environment Interactions				Examination Period	

# Geography

Syllabus Outcomes ?	Syllabus Component Weight ?	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Research Task with in-class response <b>Earths Natural Systems</b>	Geographical Investigation	Formal Written Examination
		<b>Date:</b> Term 2 Week 2	<b>Date:</b> Term 3 Week 6	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> GE-11-01 GE-11-03 GE-11-09	<b>Outcomes:</b> GE-11-05 GE-11-06 GE-11-07 GE-11-09	<b>Outcomes:</b> GE-11-01 GE-11-02 GE-11-04 GE-11-07 GE-11-08
TASK WEIGHTINGS				
Knowledge & understanding of course content	40%	10%	10%	20%
Geographical tools & skills	20%	5%	10%	5%
Geographical inquiry & research, including fieldwork	20%	5%	10%	5%
Communication of geographical information, ideas & issues in appropriate terms	20%	5%	5%	10%
<b>Total</b>	<b>100%</b>	<b>25%</b>	<b>35%</b>	<b>40%</b>

## Outcomes

### **A student:**

GE-11-01 examines places, environments and natural and human phenomena, for their characteristics, spatial patterns, interactions and changes over time

GE-11-02 explains geographical processes and influences, at a range of scales, that form and transform places and environments

GE-11-03 explains geographical opportunities and challenges, and varying perspectives and responses

GE-11-04 assesses responses and management strategies, at a range of scales, for sustainability

GE-11-05 analyses and synthesises relevant geographical information from a variety of sources

GE-11-06 identifies geographical methods used in geographical inquiry and their relevance in the contemporary world

GE-11-07 applies geographical inquiry skills and tools, including spatial technologies, fieldwork, and ethical practices, to investigate places and environments

GE-11-08 applies mathematical ideas and techniques to analyse geographical data

GE-11-09 communicates and applies geographical understanding, using geographical knowledge, concepts, terms and tools, in appropriate forms



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Geography
<b>Teacher:</b>	P Harget
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	<b>Earth's Natural Systems: Fieldwork booklet with in-class response</b>
<b>Date Issued:</b>	Monday 31/3/25, Term 1 Week 9
<b>Date and Time Due:</b>	Friday 9/5/25, Term 2 Week 2
<b>Weighting:</b>	25%
<b>Class Time Allocated:</b>	
<b>Presentation and Submission Guidelines:</b>	
<b>Marking Process:</b>	Classroom teacher to mark

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
GE-11-01	Examines places, environments and natural and human phenomena, for their characteristics, spatial patterns, interactions and changes over time
GE-11-03	Explains geographical opportunities and challenges, and varying perspectives and responses
GE-11-09	Communicates and applies geographical understanding, using geographical knowledge, concepts, terms and tools, in appropriate forms

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____

## Task Description:

### Task Description:

*This assessment task has two parts.*

**Students must complete each part to satisfy the requirements of this task.**

#### **PART 1: Fieldwork Booklet**

Fieldwork—Students will record their fieldwork findings in a booklet during their excursion. They will complete this on the day and refine it at home before submitting the hard copy to their Geography teacher in class on Friday 9/5/25 following the In-Class Extended Response. Additional research will be required.

#### **PART 2: In-Class Extended Response**

In-class Task—On Friday 9/5/25 students will write an extended response under exam conditions in their Geography period. A time limit of 50 minutes will be applied.

Write a response to the following question:

**Assess the different strategies employed to manage the coastal ecosystem at Birubi Beach.**

**In your response, you should address the following criteria:**

- Explain how biophysical interactions affect an ecosystem, including interactions in the hydrosphere, lithosphere, biosphere and atmosphere.
- Explain the challenges faced by the coastal ecosystem at Birubi Beach
- Explain the different management strategies being used to manage these challenges.
- Assess the effectiveness of these management strategies in managing an ecosystem.

Refer to the information and data from your fieldwork.

**Students can find additional information at the following websites:**

<https://www.portstephens.nsw.gov.au/environment/environmental-plans-and-strategies/coastal-management-program>

[https://www.portstephens.nsw.gov.au/\\_data/assets/pdf\\_file/0010/145693/Coastal-Management-Program-Summary-Document- A4\\_2024\\_final.pdf](https://www.portstephens.nsw.gov.au/_data/assets/pdf_file/0010/145693/Coastal-Management-Program-Summary-Document- A4_2024_final.pdf)

<https://worimiconservationlands.com/beach-driving/>

<https://worimiconservationlands.com/plan-of-management/>

<https://www.econetworkps.org/protecting-nature/managing-ecosystems/shark-management-in-port-stephens/>

<https://www.coastalconference.com/2017/papers2017/Pam%20Dean-Jones.pdf>

## NESA Glossary of Key Words

- Explain: Relate cause and effect; make the relationships between things; provide why and/or how
- Assess: Make a judgement of value, quality, outcomes, results or size

Understand the verb associated with the task. The verb will provide an understanding of the detail needed to answer the question successfully.

Check the NESA Glossary of Key Words:

<https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/hsc/hsc-student-guide/glossary-keywords>

## Details of Submission:

This assessment will be both a hand-in task and an in-class essay to be completed 9/5/25.

Students must bring the required equipment for the examination, including a pen.

All writing papers will be provided.

Students are ALLOW to bring in their completed fieldwork booklet into the exam. Absences on the day will be dealt with in accordance with school policies.

## Assessment Procedures

All students should be fully aware of the school assessment procedures. For more information, students should access their 2025 Assessment Guide.

## Feedback provided

- The task will be typically returned to students within two school weeks of the submission date.
- At this time feedback including information on how to improve will be delivered through mechanisms such as marking criteria, and/or written comments.
- Students can clarify or seek further feedback by arranging to meet with their teacher.

## Self-Reflection Component

Students will be required to complete a self-reflection worksheet at the time students receive their assessment mark and teacher feedback. Self-reflection is an important part of the learning process as it provides an opportunity to reflect on the strength of your performance, as well as areas that have been identified to strengthen in future tasks.

## What Areas of Learning will this Assessment Task Report On?

In this task, you will be assessed on your ability to:

- Complete Fieldwork. Fieldwork is a compulsory component of the Preliminary Geography course. This task will assess engagement in the fieldwork conducted as well as an understanding of the Earth's Natural Systems Topic studied in class.
- Develop key questions for Inquiry. This task introduces the Senior Geography skill of forming key questions for inquiry, developing a focus question, collecting data and evidence, evaluating their research methods and presenting research findings. These skills will be used to a higher level as students begin their Geographical Investigation.



## Marking Criteria - Essay

Description of Achievement	
<ul style="list-style-type: none"> <li>· Demonstrates deep knowledge and understanding of the interactions between different components of the spheres in the biophysical environment.</li> <li>· Demonstrates deep knowledge and understanding of the implications of the biophysical processes to manage an ecosystem effectively.</li> <li>· Makes clear judgements, based on criteria, about the success of managing an ecosystem at Birubi Beach.</li> <li>· Presents a sustained, logical and cohesive answer using a range of geographical information, ideas and issues, along with diagrams, maps, statistics and fieldwork data.</li> </ul>	<b>17-20</b>
<ul style="list-style-type: none"> <li>· Demonstrates knowledge and understanding of the interactions between different components of the spheres in the biophysical environment.</li> <li>· Demonstrates knowledge and understanding of the implications of the biophysical processes to manage an ecosystem effectively.</li> <li>· Makes a judgement based on criteria about the success of managing an ecosystem at Birubi Beach.</li> <li>· Presents a logical and cohesive answer using a range of geographical information, ideas and issues, along with diagrams, maps, statistics and fieldwork data.</li> </ul>	<b>13-16</b>
<ul style="list-style-type: none"> <li>· Demonstrates some knowledge and understanding of the interactions between different components of the spheres in the biophysical environment. Demonstrates some knowledge and understanding of the implications of the biophysical processes to manage an ecosystem effectively.</li> <li>· Describes and may make a judgement about the success of managing an ecosystem at Birubi Beach.</li> <li>· Presents a structured answer using geographical information.</li> </ul>	<b>9-12</b>
<ul style="list-style-type: none"> <li>· Describes some of the interactions between different components of the spheres in the biophysical environment.</li> <li>· May describe some of the implications of the biophysical processes for managing an ecosystem effectively.</li> <li>· May describes some of the management practices used to manage an ecosystem at Birubi Beach.</li> <li>· Presents a structured answer using geographical information.</li> </ul>	<b>5-8</b>
<ul style="list-style-type: none"> <li>· Demonstrates limited understanding of the interactions between different components of the spheres in the biophysical environment.</li> <li>· Limited or no reference to geographical information.</li> </ul>	<b>1-4</b>

Description of Achievement	Mark
<ul style="list-style-type: none"> <li>· Outstanding participation in the fieldwork using specific geographical tools and skills</li> <li>· Exhibits consistent initiative in answering and responding to specific fieldwork questions</li> </ul>	<b>9-10</b>
<ul style="list-style-type: none"> <li>· High participation in the fieldwork addressing a number of geographical tools and skills</li> <li>· Displays increased interest in answering and responding to specific fieldwork questions</li> </ul>	<b>7-8</b>
<ul style="list-style-type: none"> <li>· Sound participation in the fieldwork using some geographical tools and skills</li> <li>· Shows initiative in answering and responding to fieldwork questions</li> </ul>	<b>5-6</b>
<ul style="list-style-type: none"> <li>· Basic participation in the fieldwork using limited geographical tools and skills</li> <li>· Inconsistent effort in trying to answer fieldwork questions</li> </ul>	<b>3-4</b>
<ul style="list-style-type: none"> <li>· Limited participation in fieldwork using insufficient geographical tools and skills</li> <li>· Lack of interest in answering questions relevant to the fieldwork</li> </ul>	<b>0-2</b>



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	Geography
<b>Teacher:</b>	P Harget
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Geographical Investigation
<b>Date Issued:</b>	Friday 2/5/25, Term 2 Week 1
<b>Date and Time Due:</b>	Friday 29/8/25, Term 3 Week 6
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	14 Hours
<b>Presentation and Submission Guidelines:</b>	Student to submit by the due date in their chosen format.
<b>Marking Process:</b>	Classroom teacher to mark

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
GE-11-05	analyses and synthesises relevant geographical information from a variety of sources
GE-11-06	identifies geographical methods used in geographical inquiry and their relevance in the contemporary world
GE-11-07	applies geographical inquiry skills and tools, including spatial technologies, fieldwork, and ethical practices, to investigate places and environments
GE-11-09	communicates and applies geographical understanding, using geographical knowledge, concepts, terms and tools, in appropriate forms

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____

## Task Description:

Choose a geographical issue, geographical problem or topic related to geography that you are interested in. Complete an individual research project that demonstrates your ability to complete geographical research, conduct fieldwork, and develop geographical questions.

### Steps you need to complete:

1. Complete a Geographical Investigation task research proposal sheet (*in class*)
2. Individually complete an analysis of methodologies and research findings (*in class*)
3. Submit the final report

What every Geographical Investigation needs to include:

- An *aim* for the research
- A *hypothesis* of what you think you'll find out
- The *objectives* or specific research tasks to complete during the inquiry
- *Research* in the form of *primary* and *secondary data*
- An analysis of the *findings* of the research
- A summary of the *conclusions* based on the findings
- An *evaluation or reflection* on the project
- A *bibliography* of sources used

### Presentation

You can choose a variety of methods to present your research project. The most common method is a written report, however the list below provides you with some alternative forms of presentation:

- a written report (approximately 1500- 2000 words)
- a multi-modal presentation
- a website

### Things to get you started

There are a variety of things that may lead you towards a particular research project. The best projects completed by students are usually linked with things the student already has a strong understanding of, interest in or passion for.

Think about what made you choose Geography? Think about the type of job you're looking to get into when you finish school? The Geographical Inquiry is not only about teaching you the practical skills in research, it is designed to foster your interest and develop your understanding of something you feel passionate about. You may even be able to make a difference in your local community.

**Marking Criteria: Final Presentation**

Criteria	1	2	3	4	5
<b>Relevance of topic to geography</b>	Little or no attempt	Student has made basic links to the relevance of the inquiry to the study of Geography. Student has not communicated the significance of the discipline throughout the project and has only made basic attempts to link project to larger geographical issues.	Student has made sound links to the relevance of the inquiry to the study of Geography. Student is able to communicate the significance of the discipline throughout the project and has made a sound attempt to link project to larger geographical issues.	Student has made good links to the relevance of the inquiry to the study of Geography. Student is able to communicate the significance of the discipline throughout the project and has made a good attempt to link project to larger geographical issues.	Student has made excellent links to the relevance of the inquiry to the study of Geography. Student is able to communicate the significance of the discipline throughout the project and has made an excellent attempt to link project to larger geographical issues.
<b>Effectiveness of research techniques utilised</b>	Little or no attempt	Student has used only one or two research techniques appropriately to enhance the authenticity of their work.	Student has used two or three research techniques appropriately to enhance the authenticity of their work.	Student has used a variety of research techniques used appropriately to enhance the authenticity of their work.	Student has used an excellent variety of research techniques used appropriately to enhance the authenticity of their work.
<b>Relevance of data obtained</b>	Little or no attempt	Student has made a basic effort to ensure the data used to the inquiry is relevant, current and appropriate for the set research question.	Student has made a sound effort to ensure the data used to the inquiry is relevant, current and appropriate for the set research question.	Student has made a good effort to ensure the data used to the inquiry is relevant, current and appropriate for the set research question.	Student has made a sustained effort to ensure the data used to the inquiry is relevant, current and appropriate for the set research question.
<b>Depth of study</b>	Little or no attempt	Student has a basic or superficial depth of study. Some enquiry questions have been attempted.	Student has a sound depth of study. Each enquiry question has been attempted and no aspect of the research task has been overlooked.	Student has good depth of study. Each enquiry question has been attempted in detail and no aspect of the research task has been overlooked.	Student has an excellent depth of study. Each enquiry question has been attempted in thorough detail and no aspect of the research task has been overlooked.
<b>Explanation of the research processes used</b>	Little or no attempt	Student has made a basic attempt to explain the research processes used in the project.	Student has explained some of the research processes used in the project including justification for why that methodology was most appropriate.	Student has explained the majority of research processes used in the project including justification for why that methodology was most appropriate.	Student has thoroughly explained all the research processes used in the project including justification for why that methodology was most appropriate.
<b>Presentation of research findings</b>	Little or no attempt	Student has made a basic attempt at presenting the research project according to the task description.	Student has made a sound attempt at presenting the research project according to the task description.	Student has made a good attempt at presenting the research project according to the task description and uses the correct protocols of Geographical inquiry.	Student has made an excellent attempt at presenting the research project according to the task description and uses the correct protocols of Geographical inquiry.

<b>Discussion of research findings</b>	Little or no attempt	Student makes a basic attempt to discuss the findings of the research project.	Student makes a sound attempt to discuss the findings of the research project.	Student can discuss the findings of the research project, make links to the real world and make valid suggestions as to how this research could be used.	Student can confidently discuss the findings of the research project, make links to the real world and make excellent suggestions as to how this research could be used to monitor or improve a geographical issue.
<b>Conclusion</b>	Little or no attempt	Student has made a basic attempt to conclude their research assignment.	Student has made a sound attempt to conclude their research assignment.	Student has made a good attempt to conclude their research assignment, maintaining the focus on the set question and summarising the key findings of the project.	Student has made an excellent attempt to conclude their research assignment, maintaining the focus on the set question and summarising the key findings of the project.
<b>Ability to evaluate research processes utilised</b>	Little or no attempt	Student has made a basic attempt at reflecting of the quality of their research project.	Student has made a sound attempt at reflecting of the quality of their research project.	Student has made a good attempt at reflecting of the quality of their research project, areas of improvement and can suggest possible ways the task could have been improved or extended upon to increase the reliability of the results.	Student has made an excellent attempt at reflecting of the quality of their research project, areas of improvement and can suggest possible ways the task could have been improved or extended upon to increase the reliability of the results.
<b>Presentation of project</b>	Little or no attempt	Students has made an basic effort to ensure a high quality in presentation of the research project.	Students has made a sound effort to ensure a high quality in presentation of the research project.	Students has made an good effort to ensure a high quality in presentation of the research project. The project is set out in accordance to the task guidelines.	Students has made an excellent effort to ensure a high quality in presentation of the research project. The project is set out in accordance to the task guidelines, all words are spelt correctly, geographical terms are used in appropriate contexts, graphs and figures are referenced according to geographical conventions, and all information is presented in a clear and logical sequence.
<b>Sources utilised</b>	Little or no attempt	Student has used limited primary and secondary sources and has a basic bibliography.	Student has used sound primary and secondary sources (2-3) Each source is appropriately referenced in the bibliography.	Student has used a variety of different primary and secondary sources (4-5) Each source is appropriately referenced in the bibliography and cited correctly in the research project.	Student has used a variety of different primary and secondary sources (6 or more) Each source is appropriately referenced in the bibliography and cited correctly in the research project.



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	Geography
<b>Teacher:</b>	P Harget
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Examination
<b>Date Issued:</b>	Monday 25/8/25, Term 3 Week 6
<b>Date and Time Due:</b>	Exam date TBA Term 3 Week 9/10
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	2 hours
<b>Presentation and Submission Guidelines:</b>	Student to complete 2 hour examination in the hall on examination day.
<b>Marking Process:</b>	Classroom teacher to mark.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
GE-11-01	examines places, environments and natural and human phenomena, for their characteristics, spatial patterns, interactions and changes over time
GE-11-02	explains geographical processes and influences, at a range of scales, that form and transform places and environments
GE-11-04	assesses responses and management strategies, at a range of scales, for sustainability
GE-11-07	applies geographical inquiry skills and tools, including spatial technologies, fieldwork, and ethical practices, to investigate places and environments
GE-11-08	applies mathematical ideas and techniques to analyse geographical data

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____

**Task Description:**

Students will be required to complete a two-hour examination during the Preliminary Examination Period.

The examination will test the student's ability to complete geographical skills, data analysis and source interpretation to respond to a series of objective response (multiple choice) and short answer questions. These questions will be drawn from the four topics studied as part of the Preliminary Geography course; Earth's Natural Systems; People, Patterns and Processes; Human-environment Interactions and the Geographical Investigation.

There will be 20 objective response questions worth 1 mark each. This section should take approximately 30 minutes. The second section will include 6 short answer questions, ranging from 1-6 marks and worth a total of 20 marks. The marks allocated and suggested length for each response will be indicated on the examination paper. This section should take approximately 45 minutes. The final section will require students to respond to one extended response question drawn from the topics: People, Patterns and Processes and Human-environment Interactions. This section will be worth 20 marks.

Class time will be allocated in the week prior to the assessment task being administered to help you prepare for the Preliminary Examination. This will include looking at past paper and sample questions, as well as developing strategies to respond to short-answer and extended response style questions.



**Health &  
Movement  
Science**



## Health and Movement Science - Preliminary Course 2025

Syllabus Outcomes	Syllabus Component Weight	Task 1:	Task 2:	Task 3:
		Depth Study 1 - Health Promotion in Australia	Collaborative Investigation	Preliminary Exam
		<b>Date:</b> Term 1 Week 8	<b>Date:</b> Term 3 Week 3	<b>Date:</b> Term 3 Week 9 - 10
		<b>Outcomes:</b> HM-11-01 HM-11-02 HM-11-06 HM-11-10	<b>Outcomes:</b> HM-11-05 HM-11-07 HM-11-08 HM-11-09 HM-11-10	<b>Outcomes:</b> HM-11-01 HM-11-02 HM-11-03 HM-11-04
<b>TASK WEIGHTINGS</b>				
Knowledge & understanding of content	40%	10%	10%	20%
Skills in critical thinking, research, analysing and communicating	60%	20%	30%	10%
<b>Total</b>	<b>100%</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

### Knowledge Outcomes

#### HM-11-01

interprets meanings, measures and patterns of health experienced by Australians

#### HM-11-02

analyses methods and resources to improve and advocate for the health of young Australians

#### HM-11-03

analyses the systems of the body in relation to movement

#### HM-11-04

investigates movement skills and psychology to improve participation and performance

### Skills Outcomes

#### HM-11-05

Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts

#### HM-11-06

Analysis: analyses the relationships and implications of health and movement concepts

#### HM-11-07

Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes

#### HM-11-08

Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts

#### HM-11-09

Problem-solving: proposes and evaluates solutions to health and movement issues

#### HM-11-10

Research: analyses a range of sources to make conclusions about health and movement concepts

Hunter River High School  
**Health, Movement Science Year 11 2025**  
 SCOPE AND SEQUENCE



Term	Week	Content / Skills
1 2025	1	<b>FOCUS AREA 1</b>
	2	Health for Individuals and Communities (40 hours)
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	<b>FOCUS AREA 2</b>
2 2025	1	The Body and Mind in Motion (40 hours)
	2	
	3	
	4	<b>DEPTH STUDY (FA 2) – 5 hours (FIRST AID COURSE)</b>
	5	
	6	
	7	
	8	
	9	
	10	Collaborative Investigation (20 hours) (40%)
3 2025	1	
	2	
	3	
	4	REVISION/RECAP FOCUS AREA 1 and 2
	5	
	6	
	7	EXAM (30%)
	8	
	9	DEPTH STUDY (FA 2) – 5 hour - Year 11 content that strongly links to HSC
	10	

\*Lesson 7 per fortnight on collaborative Investigation all year.



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 Health and Movement, Science
<b>Teacher:</b>	Lovell
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Depth Study
<b>Date Issued:</b>	Term 1 Week 6
<b>Date and Time Due:</b>	Term 1 Week 8
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Class time will be allocated to unpack the task
<b>Presentation and Submission Guidelines:</b>	This task will be submitted week 8.
<b>Marking Process:</b>	This will be marked by Mr Lovell.

<b>Outcomes Assessed:</b>	
HM-11-01	interprets meanings, measures and patterns of health experienced by Australians
HM-11-02	analyses methods and resources to improve and advocate for the health of young Australians
HM-11-06	Analysis: analyses the relationships and implications of health and movement concepts
HM-11-10	Research: analyses a range of sources to make conclusions about health and movement concepts

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>

## Task Description

### **Depth Study Syllabus Content**

- *Explain the nature of health promotion in Australia*

#### **Including:**

- *how have various approaches to health influenced health promotion?*
- *what global health policies have impacted health promotion in Australia?*
- *how has the Ottawa Charter been used to improve Australia's health?*
- *how does health promotion in partnerships with communities strengthen the health of individuals and communities across a range of cultural groups including Aboriginal and Torres Strait Islander Peoples?*

### **Depth Study Task**

**Inquiry question** – What is the nature of health promotion in Australia?

**Students are asked to:**

Investigating and reporting on a particular health issue that affects Australians.

### **Step-by-step Structure**

1. Clearly identify and explain a health issue in Australia.
2. Analyse the Ottawa Charter and explain how it has been used to promote health in Australia.
3. Outline and explain different health approaches and global policies that have been implemented to improve Australia's health.
4. how does health promotion in partnerships with communities strengthen the health of individuals and communities across a range of cultural groups including Aboriginal and Torres Strait Islander Peoples?

The final presentation for a depth study will summarise the work you have completed, presented in a format that is appropriate. Possible presentation formats include:

- Essay
- Report
- Poster
- Presentation
- Speech
- Video
- Podcast

<b>Marking Criteria:</b>				
<b>Criteria</b>	<b>High (17-20 marks)</b>	<b>Satisfactory (13-16 marks)</b>	<b>Developing (9-12 marks)</b>	<b>Limited (0-8 marks)</b>
<b>Understanding of Health Promotion</b>	Demonstrates a comprehensive understanding of health promotion in Australia, including the influence of different health approaches, global health policies, and the Ottawa Charter.	Demonstrates a sound understanding of health promotion in Australia, with some discussion of health approaches, global policies, and the Ottawa Charter.	Demonstrates a basic understanding of health promotion in Australia, with limited discussion of health approaches, global policies, and the Ottawa Charter.	Demonstrates little to no understanding of health promotion in Australia, with minimal or incorrect information.
<b>Analysis of Partnerships in Health Promotion</b>	Effectively analyses how partnerships with communities strengthen health, including Aboriginal and Torres Strait Islander Peoples.	Discusses partnerships in health promotion with some reference to Aboriginal and Torres Strait Islander Peoples.	Provides a basic discussion of partnerships but lacks depth or relevance to Aboriginal and Torres Strait Islander Peoples.	Little to no discussion of partnerships in health promotion.
<b>Investigation of a Health Issue</b>	Thoroughly investigates a relevant health issue affecting Australians, using comprehensive research and evidence.	Investigates a relevant health issue with supporting research, though some gaps may exist.	Investigates a health issue but lacks depth and supporting evidence.	Minimal investigation with little to no relevant research.
<b>Presentation and Communication</b>	Presents information in a highly engaging, logical, and clear manner, appropriate to the chosen format.	Presents information clearly and logically, with minor issues in engagement or format.	Communicates ideas in a somewhat structured manner but lacks clarity or engagement.	Poorly structured presentation, unclear communication, and inappropriate format.
<b>Use of Evidence and Referencing</b>	Provides clear structures bibliography of where all information was gathered.	Provides some reference to where information was gathered.	Uses some sources but with limited referencing.	Little to no use of sources.

**Total Marks: /100 (30%)**

**Teacher Feedback:**

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<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Health and Movement Science
<b>Teacher:</b>	Lovell
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Collaborative Investigation - CI
<b>Date Issued:</b>	Term 2, Week 8
<b>Date and Time Due:</b>	Term 3, Week 3
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	20 Hours of Class time will be allocated
<b>Presentation and Submission Guidelines:</b>	Submission in chosen format to teacher
<b>Marking Process:</b>	Marked by Mr Lovell

<b>Outcomes Assessed:</b>	
HM-11-05	Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts
HM-11-07	Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes
HM-11-08	Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts
HM-11-09	Problem-solving: proposes and evaluates solutions to health and movement issues
HM-11-10	Research: analyses a range of sources to make conclusions about health and movement concepts

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>



### Task Description

Complete a Collaborative Investigation by conducting research on a particular subject/focus and construct a report detailing your research. The CI will consist of three phases:

*Part A - The project plan*

*Part B - The project diary*

*Part C - The project product*

#### **Presentation:**

Students may choose from a range of mediums including using video, multimedia presentations, electronic forms, or an oral presentation. They can also continue to present the CI as a written report. The method of presentation needs to be negotiated between the teacher and group of students at the time of submission of the project plan.



## Overview

### Introduction

- **Title page** – Name, Subject, Due date, Research Question & Hypothesis.
- **Contents page** – clearly identify where each section is throughout the project. All pages should be labelled and correlate with the information on the contents page.
- **Acknowledgements** - recognise specific 'sources of data' (refer to syllabus) that assisted in the research process and acknowledge the support given.
- **Abstract** – summary of the entire research project. (Overall picture of steps 1-7). Approx. 2-3 pages in length.

### Main Body of Report

**1. Introduction** – describe the intentions of the project and link to relevant syllabus content. (Include your research hypothesis and question).

**2. Literature review** – discuss the secondary data related to your research topic. (Show the information that already exists for/against your research topic)

**3. Research methodologies** – describe the primary research methods used to collect data. (Specify – who, what, when why and how they were conducted. Include details of the sampling method/s used.)

**4. Results** – present the data collected using graphs and/or tables and outline the significant points in writing (describe the data presented in the graphs/tables). It is suggested that you show both the data that supports your hypothesis and the data that does not support your hypothesis.

Note: **DO NOT** give reasons for the data in this section.

**5. Analysis and discussion** – interpret research findings/results. (Suggest reasons for the data; show any relationships between the primary and secondary data, present information both for and against your hypothesis, show links between the data and your hypothesis).

**6. Conclusion** – provide a summary of analysis and discussion (Determine the final outcome or conclusion to research, make a judgment as to whether your hypothesis was correct or incorrect based on your findings). All conclusions should be supported with data and be based on evidence already discussed. There should be no new information in this section.

**7. Future recommendations** – outline the problems encountered during research, any issues of concern, and make relevant suggestions for improvement.

### Additional information

**Bibliography** – list all secondary sources of data using a recognised referencing technique. (refer to the information given in class on referencing secondary sources)

**Appendix** – File all relevant materials utilised for the research but not needed in the main body of the report – e.g. copies of questionnaires, interviews or other research methodologies records, secondary information materials, articles etc.





## Part A: Project Plan

Criteria	Marks
<ul style="list-style-type: none"><li>Clearly presents the project plan including the topic area, reason the topic was selected and how it relates to Community and Family Studies concepts</li><li>Proposes appropriate, expected outcomes of the research</li><li>Effectively addresses any ethical issues and how they might be overcome.</li><li>Develops a realistic timeline for the management of the project</li></ul>	5
<ul style="list-style-type: none"><li>Project plan includes the topic area, reason selected and how the research topic relates to Community and Family Studies concepts</li><li>Proposes expected outcomes of the research</li><li>Addresses ethical issues and how they might be overcome.</li><li>Develops a timeline for the management of the project</li></ul>	3-4
<ul style="list-style-type: none"><li>Completes the project plan including the topic area, basic reasons for selecting the topic</li><li>Basic reference to its relationship to the Community and Family Studies course.</li><li>Limited outcomes of the research are identified</li><li>Some ethical issues are identified</li><li>A basic timeline for the management of the project is included</li></ul>	1-2
<ul style="list-style-type: none"><li>Did not complete this section of the task</li></ul>	0



## Part B: Diary

Criteria	Marks
<ul style="list-style-type: none"><li>• Diary entries are detailed, clear, regularly entered and organised, demonstrating clear insight into the research process.</li><li>• Clear and accurate documentation of sources - contacts, conversations, readings and secondary sources</li><li>• Entries correspond with suggested timeline</li><li>• Clearly outlines any problems and solutions - suggestions for the future.</li></ul>	5
<ul style="list-style-type: none"><li>• Diary entries are regular and organised, demonstrating insight into the research process.</li><li>• Sources are mostly documented accurately - including contacts, conversations, readings and secondary sources</li><li>• Entries mostly correspond with suggested timeline</li><li>• Outlines problems and solutions / suggestions for the future.</li></ul>	3-4
<ul style="list-style-type: none"><li>• Diary entries are somewhat regular, demonstrating minimal understanding of the research process.</li><li>• Some sources are documented - contacts, conversations, readings and secondary sources</li><li>• Entries have some relevance to the suggested timeline.</li><li>• Outlines problems and solutions / suggestions for the future.</li></ul>	1-2
<ul style="list-style-type: none"><li>• Did not complete this section of the task</li></ul>	0



## Part C: Final Report

Criteria - Title Page, Contents, Abstract, Acknowledgements	Marks
<ul style="list-style-type: none"> <li>• Well-structured overview that is clearly set out, correctly formatted and includes all requirements: Title page, contents, abstract, acknowledgements</li> <li>• Acknowledgments are clearly identified and recorded in detail</li> <li>• Abstract is concise and provides a thorough overview of all aspects of the CI, including major findings and conclusions</li> <li>• Work is correctly referenced</li> </ul>	6
<ul style="list-style-type: none"> <li>• Overview is well set out, formatted and includes all requirements: Title page, contents, abstract, acknowledgements</li> <li>• Acknowledgments are identified and recorded</li> <li>• Abstract provides a sound overview of all aspects of the CI, including major findings and conclusions</li> <li>• Work is referenced</li> </ul>	4-5
<ul style="list-style-type: none"> <li>• Overview includes most requirements: Title page, contents, abstract, acknowledgements</li> <li>• Acknowledgments are identified</li> <li>• Abstract provides a basic overview of most aspects of the CI, including major findings and conclusions</li> <li>• Work includes some basic referencing</li> </ul>	2-3
<ul style="list-style-type: none"> <li>• Some relevant information or not included</li> </ul>	1
<ul style="list-style-type: none"> <li>• Section not included</li> </ul>	0



Criteria – Literature Reivew	Marks
<ul style="list-style-type: none"> <li>• The <b>literature review</b> includes an excellent variety of relevant secondary sources (at least three) that provide a theoretical background of previous research on the topic.</li> <li>• Each source is summarised individually and includes the methodologies used and key findings that are relevant to the current study (first three paragraphs),</li> <li>• Sources are compared and synthesised (last two paragraphs) with clear references to the current research project.</li> <li>• Work is clearly set out, correctly referenced</li> </ul>	6
<ul style="list-style-type: none"> <li>• The <b>literature review</b> includes a range of secondary sources (at least three) that provide a theoretical background of previous research on the topic.</li> <li>• Each source is summarised individually including information that is relevant to the current study (first three paragraphs),</li> <li>• Sources are compared and synthesised (last two paragraphs) with some references to the current research project,</li> <li>• Work is clearly set out, referenced</li> </ul>	4-5
<ul style="list-style-type: none"> <li>• The <b>literature review</b> includes secondary sources that provide some background research on the topic.</li> <li>• Each source is summarised and includes information that is somewhat relevant to the current study (first three paragraphs),</li> <li>• Limited synthesised of the sources is evident</li> <li>• Limited referencing</li> </ul>	2-3
<ul style="list-style-type: none"> <li>• The <b>literature review</b> includes some basic information relevant to the topic</li> </ul>	1
<ul style="list-style-type: none"> <li>• Did not complete this section of the task</li> </ul>	0



Criteria – Methodologies, Interpretation of Results, Conclusion, Future Recommendations	Marks
<ul style="list-style-type: none"> <li>• Thorough description and justification of the primary methodologies used to collect data</li> <li>• Insightful interpretation of results: primary data collected in both quantitative and qualitative forms: appropriate graphs, tables, charts (eg questionnaires) or a written summary report (eg interview, case study or observation)</li> <li>• Insightful, detailed and logical analysis of results which validates the research conclusion</li> <li>• Clear links between the primary and secondary research data and the hypothesis /question is evident.</li> <li>• The conclusion is accurate and relates directly to the research data collected, clearly summarising the findings (no new information)</li> <li>• Future recommendations include the identification of any problems encountered as well as identifying further research and /or program development that is needed as a result of this research.</li> <li>• Makes a clear judgement of the outcome of the research in relation to research supporting/not supporting hypothesis/question.</li> <li>• Work is clearly set out, correctly referenced</li> </ul>	13- 15
<ul style="list-style-type: none"> <li>• Sound description and justification of the primary methodologies used to collect data</li> <li>• Some interpretation of results: primary data collected in both quantitative and qualitative forms: mostly appropriate graphs, tables, charts (eg questionnaires) or a written summary report (eg interview, case study or observation)</li> <li>• Sound analysis of results which validates the research conclusion</li> <li>• Some links between the primary and secondary research data and the hypothesis /question is evident.</li> <li>• The conclusion relates to the research data collected, summarising the findings (no new information)</li> <li>• Future recommendations include the identification of problems encountered or further research or program development required</li> <li>• Makes a sound judgement of the outcome of the research in relation to research supporting/not supporting hypothesis/question.</li> <li>• Work is clearly set out, referenced</li> </ul>	9-12
<ul style="list-style-type: none"> <li>• Basic description of the primary methodologies used to collect data</li> <li>• Basic interpretation of results: primary data collected in both quantitative and qualitative forms: graphs, tables, charts (eg questionnaires) or a written summary report (eg interview, case study or observation)</li> <li>• Basic analysis of results related to the research conclusion</li> <li>• Limited links between the primary and secondary research data and the hypothesis/question is evident.</li> <li>• The conclusion summarises the findings (no new information)</li> <li>• Some future recommendations are included.</li> <li>• Mentions the outcome of the research in relation to research supporting/not supporting hypothesis/question.</li> <li>• Work is not clearly set out, referencing is very limited</li> </ul>	5-8
<ul style="list-style-type: none"> <li>• Sampling method and sample group is not mentioned.</li> <li>• A very limited or incomplete interpretation of results: primary data collected in both quantitative and qualitative forms: graphs, tables, charts (eg questionnaires) or a written summary report (eg interview, case study or observation).</li> <li>• Links between the primary and secondary research data and hypothesis/question not evident.</li> <li>• Conclusion is not evident or does not summarise the findings.</li> <li>• Future recommendations are not included.</li> <li>• Work is poorly set out, referencing is not evident</li> </ul>	1-4
<ul style="list-style-type: none"> <li>• Did not complete this section of the task</li> </ul>	0



## Part D: End of Report

Criteria – Bibliography, and Appendix	Marks
<ul style="list-style-type: none"><li>▪ Accurate Harvard Style Bibliography is included</li><li>▪ Appendix contents is clearly listed on the front page</li><li>▪ Appendix includes all items referred to in the research, including those that are not necessarily used in the report (both primary and secondary data sources)</li><li>▪ All sources clearly labelled and easy to refer to throughout CI</li><li>▪ Work is clearly set out</li></ul>	5
<ul style="list-style-type: none"><li>▪ Harvard Style Bibliography is included (minor errors)</li><li>▪ Appendix contents is listed on the front page</li><li>▪ Appendix includes most items referred to in the research, including those that are not necessarily used in the report (both primary and secondary data sources)</li><li>▪ Sources labelled and easy to refer to throughout CI</li></ul>	3-4
<ul style="list-style-type: none"><li>▪ Bibliography is included (significant errors)</li><li>▪ Appendix includes some items referred to in the research</li></ul>	1-2
<ul style="list-style-type: none"><li>▪ Does not complete this section of the task</li></ul>	0



## Part E: Group Collaboration

<b>PART D: COLLABORATION</b>	<b>Mark</b>
<ul style="list-style-type: none"><li>Consistently engaged, contributed valuable ideas, and demonstrated excellent teamwork and leadership skills.</li></ul>	5
<ul style="list-style-type: none"><li>Actively participated, shared thoughtful contributions, and worked well with others.</li></ul>	4
<ul style="list-style-type: none"><li>Participated regularly, contributed occasionally, and cooperated with the group.</li></ul>	3
<ul style="list-style-type: none"><li>Limited participation, minimal contribution, and needed reminders to stay involved.</li></ul>	2
<ul style="list-style-type: none"><li>Rarely participated, made little to no contribution, and struggled to work with others.</li></ul>	1
<ul style="list-style-type: none"><li>Did not participate as a group.</li></ul>	0

<b>Comments and Feedback:</b>	
Medals:	Missions:

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 Health and Movement, Science
<b>Teacher:</b>	Lovell
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Exam
<b>Date Issued:</b>	Term 3, Week 1
<b>Date and Time Due:</b>	Term 3, Week 9/10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Class time will be allocated to unpack the task
<b>Presentation and Submission Guidelines:</b>	This task will be completed Week 9/10
<b>Marking Process:</b>	This task will be double marked.

<b>Outcomes Assessed:</b>	
HM-11-01	interprets meanings, measures and patterns of health experienced by Australians
HM-11-02	analyses methods and resources to improve and advocate for the health of young Australians
HM-11-03	analyses the systems of the body in relation to movement
HM-11-04	investigates movement skills and psychology to improve participation and performance
HM-11-05	Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts
HM-11-06	Analysis: analyses the relationships and implications of health and movement concepts
HM-11-07	Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes
HM-11-08	Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts
HM-11-09	Problem-solving: proposes and evaluates solutions to health and movement issues
HM-11-10	Research: analyses a range of sources to make conclusions about health and movement concepts

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____



**Task Description:**

The paper will consist of three sections.

Time allowed: 2 hours plus 5 minutes reading time.

Section
Section I – 20 marks Multiple Choice Questions
Section II – 50 marks Short Written Responses
Section III – 10 marks Extended Written Responses

**Success Criteria:**

Recommended Preparation:

- Have completed and memorised study notes
- Have completed past HSC questions
- Sought feedback on completed past HSC questions
- Have created a glossary of terms for each Core and Option
- View Atomi Preliminary clips and completed supporting quizzes

**Feedback:**

Medals	Missions

**Final mark/grade:**

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**Student Reflection:**

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# Outcomes and content for Year 11

## Health for individuals and communities

### Outcomes

A student:

- interprets meanings, measures and patterns of health experienced by Australians **HM-11-01**
- analyses methods and resources to improve and advocate for the health of young Australians **HM-11-02**
- Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts **HM-11-05**
- Analysis: analyses the relationships and implications of health and movement concepts **HM-11-06**
- Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes **HM-11-07**
- Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts **HM-11-08**
- Problem-solving: proposes and evaluates solutions to health and movement issues **HM-11-09**
- Research: analyses a range of sources to make conclusions about health and movement concepts **HM-11-10**

**Related Life Skills outcomes:** HM-LS-03, HM-LS-04, HM-LS-09, HM-LS-10, HM-LS-16, HM-LS-17, HM-LS-18, HM-LS-19, HM-LS-20, HM-LS-21

### Content

#### How do we understand and measure Australia's health?

- Compare meanings of health, using various sources, including the World Health Organization's (WHO) definition, and explain why people give different meanings to health
- Explain the dynamic nature of health by exploring the interactions between the dimensions of health, the concept of good health, the health continuum, how health changes over time, and how an individual's circumstances affect their health
- Discuss the use of epidemiology, mortality, infant mortality, morbidity, incidence and prevalence to explain the health status of Australians using tables and graphs from *Australia's Health* and other health reports
- Investigate the role of social justice principles, participation, equity, access and rights, in promoting an individual and community's health status
- Discuss the range of determinants (broad features of society, environmental factors, socioeconomic characteristics, health behaviours and biomedical factors), that influence the health and wellbeing of Australians

**Including:**

- how do the determinants interact to affect the health of population groups?
- what are the sociological causes of risky health behaviours?
- where do inequities exist and what can we do about them?

**What are young people's meanings of health?**

- Explore across generations aspects of young people's lives that make them similar and different to the young people of previous generations

**Example(s):**

Developmental stages.

Influence of family, peers culture, technology and global events.

- Investigate the meanings of health for young people

**Including:**

- creating a research question
- developing a method(s) to collect data
- considering how the determinants of health impact on a young person's meaning of health
- analysing the different ways young people define what is important to their own health
- discussing ethical considerations
- discussing validity, reliability and credibility of data collection
- presenting findings and drawing conclusions
- identifying further research questions that could be explored

**Example(s):****Developing a method(s) to collect data:**

Survey.

Interview questions.

Focus groups.

**What key issues affect the health of young people and how can they protect and promote good health?**

- Examine the health status of young people, including Aboriginal and Torres Strait Islander young people, using *Australia's Health* and other health reports, graphs and tables

**Including:**

- what are the trends in key health issues?
- what are the causes and protective factors of key health issues?
- how do the determinants of health affect health-related behaviours?

- Research **ONE** health-related issue for young people

**Including:**

- what is the nature of the issue?
- what does the data tell us?
- why is this an issue?
- what are the protective factors to prevent the issue?
- what strategies are currently in place to improve the health of young people?
- what new strategies would be most effective to improve young people's health?
- what further research questions could be explored to build understanding and advocacy?

- Analyse how the skills for strengthening the individual can protect and enhance the health and wellbeing of themselves and others using the health issue researched

**Including:**

- self-efficacy
- health literacy
- help-seeking behaviours
- problem-solving
- resilience
- coping strategies
- sense of purpose
- ethical behaviour
- connectedness

- Reflect on their own personal health and health behaviours and indicate courses of action for improved health and wellbeing

**What are the opportunities for improving and promoting young people's health?**

- Examine how young people advocate for their own and others' health using various sources considering past, current and future advocacy and the role of individuals within their communities
- Discuss how organisations and communities advocate for the health of young people

**Including:**

- the role government and non-government organisations and communities have in promoting the health of young people, including Aboriginal and/or Torres Strait Islander young people
- the impact of organisations and communities on the health of young people

**Example(s):****The role of government and non-government organisations and communities:**

Office of the Advocate for Children and Young People (ACYP).

National Aboriginal Community Controlled Health Organisation (NACCHO).

Children and Young People with Disability Australia (CYDA).

- Explain the nature of health promotion in Australia

**Including:**

- how have various approaches to health influenced health promotion?
- what global health policies have impacted health promotion in Australia?
- how has the Ottawa Charter been used to improve Australia's health?
- how does health promotion in partnerships with communities strengthen the health of individuals and communities across a range of cultural groups including Aboriginal and Torres Strait Islander Peoples?

**Example(s):**

**How various approaches to health influenced health promotion:**

Aboriginal and Torres Strait Islander approaches to health.

Biomedical model.

Sociocultural model.

Salutogenic model.

Ecological model.

**Global health policies that have impacted health promotion in Australia:**

UNESCO.

WHO.

- Examine how the United Nations Sustainable Development Goals (SDGs) are being used to improve health

**Including:**

- what are the SDGs?
- how has the World Health Organization applied a health lens to the SDGs?
- how are the SDGs being used in Australia?
- how could the SDGs be used to promote the health of young people in a local community?

# The body and mind in motion

## Outcomes

A student:

- analyses the systems of the body in relation to movement **HM-11-03**
- investigates movement skills and psychology to improve participation and performance **HM-11-04**
- Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts **HM-11-05**
- Analysis: analyses the relationships and implications of health and movement concepts **HM-11-06**
- Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes **HM-11-07**
- Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts **HM-11-08**
- Problem-solving: proposes and evaluates solutions to health and movement issues **HM-11-09**
- Research: analyses a range of sources to make conclusions about health and movement concepts **HM-11-10**

**Related Life Skills outcomes:** HM-LS-12, HM-LS-13, HM-LS-14, HM-LS-15, HM-LS-16, HM-LS-17, HM-LS-18, HM-LS-19, HM-LS-20, HM-LS-21

## Content

### How do the systems of the body influence and respond to movement?

- Explain the interrelationship between the skeletal and muscular systems and movement

#### Including:

- structure and function
- major bones and synovial joints
- joint actions
- major muscles
- characteristics and functions of muscle fibres
- types of muscle contractions
- muscle relationship

#### Example(s):

##### Joint actions:

Flexion and extension.

##### Characteristics and functions of muscle fibres:

Slow versus fast twitch muscle fibres.

##### Types of muscle contractions:

Isotonic concentric.

Isotonic eccentric.

Isometric contractions.

##### Muscle relationship:

Agonist/antagonist/stabiliser relationship.

- Outline the interrelationship between biomechanical principles and the muscles, bones and joints of the body for safe movement

#### Including:

- how biomechanical principles are applied to human movement, including motion, balance and stability, fluid mechanics and force
- how biomechanical principles can be used to enhance safe movements
- how biomechanical principles can be used to increase movement efficiency

#### Example(s):

##### How biomechanical principles can be used to enhance safe movements:

Walking.

Squatting.

Lifting.

##### How biomechanical principles can be used to increase movement efficiency:

Movements to reduce injury.

People with specific needs such as disability.

- Explain the interrelationship between the respiratory and circulatory systems and movement

**Including:**

- structure and function
- pulmonary and systemic blood circulation and gaseous exchange
- factors that impact on the efficiency of the cardiovascular system

**Example(s):**

**Factors that impact on the efficiency of the cardiovascular system:**

Altitude.  
Haemoglobin levels.  
Vascular disease.

- Explain the interrelationship between the digestive and endocrine systems and movement, including structure and function and factors that impact on the efficiency of the systems

**Example(s):**

Macronutrients and micronutrients to support healthy body functioning.

Stress.

- Explain the interrelationship between the nervous system and movement, including structure and function
- Demonstrate and analyse how the systems of the body work together in a variety of movements
- Discuss the role first aid plays in response to movement

**Example(s):**

Inefficient movement.

Dehydration.

Undue stress on the body.

**What factors influence movement and performance?**

- Analyse the ATP-PCr, Glycolytic (Lactic Acid) and Aerobic energy systems of the body including fuel source and efficiency of ATP production, duration, intensity and rate of recovery, causes of fatigue and interplay of the energy systems
- Explain the role nutrition plays in enabling the energy systems to function efficiently, including macronutrient and micronutrient requirements of active people

**Example(s):**

Predominantly anaerobic versus predominantly aerobic activities.



- Compare the difference between aerobic and anaerobic training for individuals and group sports, including differentiated training programs and contemporary methods of training

**Example(s):**

*Aerobic training:* continuous.

*Anaerobic training:* anaerobic interval.

*Contemporary methods of training:* High Intensity Interval Training (HIIT) and Sprint Interval Training (SIT).

- Design an aerobic or anaerobic training program based on the FITT principle
- Explain the immediate physiological responses to training, heart rate, ventilation rate, stroke volume, cardiac output and lactate levels
- Investigate the physiological responses in relation to aerobic training

**Including:**

- creating a research question
- selecting a method to collect data
- discussing the ethical considerations of the methods chosen
- discussing the validity, reliability and credibility of data collection
- presenting findings and drawing conclusions
- identifying further research questions that could be explored

**Example(s):**

**Selecting a method to collect data:**

Observation.

Survey.

Interview.

- Debate the purpose and outcomes of testing physical fitness for different groups in the population

## How are movement skills acquired, developed and improved?

- Apply an understanding of how movement skills are acquired, developed and improved for recreational and elite athletes

### Including:

- characteristics of learners
- stages of learning/skill acquisition
- characteristics of motor skills, including gross and fine, continuous, discrete and serial, open and closed, self-paced and externally paced
- practice methods for the different stages of learning, including massed, distributed, whole, part, blocked and random
- performance elements, including decision-making, strategic and tactical development
- types of feedback for different stages of learning, including task-intrinsic, augmented, concurrent, delayed, knowledge of results, knowledge of performance

### Example(s):

#### Stages of learning/skill acquisition:

Cognitive, associative and autonomous stages.

- Research how movement skills are acquired, developed and improved in a sport of choice

### Including:

- what does the research tell us about acquiring, developing and improving the movement skill?
- how is this applied in practice?
- what further research questions can be proposed to further understand skill development?

## What is the relationship between psychology, movement and performance?

- Analyse the relationship between psychology, movement and performance for individuals and groups

### Including:

- how does personal identity affect an individual's participation and performance in sport?
- how does motivation support participation, including positive and negative, intrinsic and extrinsic motivation?
- why is self-regulation essential for sports performance and exercise behaviour change?

- Investigate how communities of exercise motivate individuals and groups to participate in and improve performance

### Including:

- what are contemporary forms of exercise?
- how do contemporary forms of exercise encourage group dynamics, group cohesion, social interaction and a sense of belonging?

# Collaborative Investigation

## Outcomes

A student:

- interprets meanings, measures and patterns of health experienced by Australians **HM-11-01**
- analyses methods and resources to improve and advocate for the health of young Australians **HM-11-02**
- analyses the systems of the body in relation to movement **HM-11-03**
- investigates movement skills and psychology to improve participation and performance **HM-11-04**
- Collaboration: demonstrates strategies to positively interact with others to develop an understanding of health and movement concepts **HM-11-05**
- Analysis: analyses the relationships and implications of health and movement concepts **HM-11-06**
- Communication: communicates health and movement concepts to audiences and contexts, using a variety of modes **HM-11-07**
- Creative thinking: generates new ideas that are meaningful and relevant to health and movement contexts **HM-11-08**
- Problem-solving: proposes and evaluates solutions to health and movement issues **HM-11-09**
- Research: analyses a range of sources to make conclusions about health and movement concepts **HM-11-10**

**Related Life Skills outcomes:** HM-LS-03, HM-LS-04, HM-LS-09, HM-LS-10, HM-LS-12, HM-LS-13, HM-LS-14, HM-LS-15, HM-LS-16, HM-LS-17, HM-LS-18, HM-LS-19, HM-LS-20, HM-LS-21

## Content

Outcome HM-11-05 must be assessed. Other outcomes are selected based on the group's investigation topic.

## Overview of the Year 11 Collaborative Investigation

The Collaborative Investigation provides opportunities for students to develop knowledge and skills to support their own and others' health and movement. It allows students to manage their own learning and to become flexible, critical thinkers, problem-solvers and decision-makers.

Throughout the Collaborative Investigation, students are provided with opportunities to positively interact with others and work collaboratively to reach agreements and decisions. They develop skills to negotiate plans and tasks, distribute leadership, create and maintain a positive group environment, and give and receive feedback.

The Collaborative Investigation provides students with the opportunity to adopt an informed point of view when responding by speculating, critiquing, analysing, interpreting and constructing possible meanings for their own and others' health, physical activity levels and performance.

## Requirements for the Collaborative Investigation

The Collaborative Investigation must:

- link the group research question to a concept taught in Health for Individuals and Communities or The Body and Mind in Motion in Year 11
- address knowledge, understanding and skill outcomes in the investigation, including HM-11-05

In partnership with the students, teachers determine the knowledge and understanding outcome(s) to be assessed based on the nature of their investigation. Outcome HM-11-05 must be assessed; however, teachers also have the flexibility to choose other skill outcomes to be assessed in the investigation.

The Collaborative Investigation will include the research design, documentation, presentation of the findings and reference list.

Some students with disability may require adjustments and/or additional support in order to engage with the Collaborative Investigation.



# **Investigating Science**

# Investigating Science

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<u>Task 1:</u> Depth Study – Pendulum Motion	<u>Task 2:</u> Data Analysis	<u>Task 3:</u> Examination
		<u>Date:</u> Term 1 Week 9	<u>Date:</u> Term 2 Week 8	<u>Date:</u> Term 3 Week 9/10
		<u>Outcomes:</u> INS11/12-1 INS11/12-2 INS11/12-3 INS11/12-4 INS11/12-5 INS11/12-7 INS11-8	<u>Outcomes:</u> INS11/12-5 INS11/12-6 INS11-9 INS11-10	<u>Outcomes:</u> INS11/12-1→7 INS11-8→11
		<b>TASK WEIGHTINGS</b>		
Modules Assessed		Module 1	Modules 2-3	Modules 1-4
Skills in working scientifically	60%	25%	25%	10%
Knowledge and understanding of course content	40%	5%	5%	30%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Outcomes

### A student:

INS11/12-1	develops and evaluates questions and hypotheses for scientific investigation
INS11/12-2	designs and evaluates investigations in order to obtain primary and secondary data and information
INS11/12-3	conducts investigations to collect valid and reliable primary and secondary data and information
INS11/12-4	selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media
INS11/12-5	analyses and evaluates primary and secondary data and information
INS11/12-6	solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
INS11/12-7	communicates scientific understanding using suitable language and terminology for a specific audience or purpose
INS11-8	identifies that the collection of primary and secondary data initiates scientific investigations
INS11-9	examines the use of inferences and generalisations in scientific investigations
INS11-10	develops, and engages with, modelling as an aid in predicting and simplifying scientific objects and processes
INS11-11	describes and assesses how scientific explanations, laws and theories have developed



Hunter River High School  
**ASSESSMENT TASK 1 – YEAR 11 Investigating Science**

**Notification**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Investigating Science
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Depth Study – Pendulum Motion
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	5 hours of class time
<b>Presentation and Submission Guidelines:</b>	You will need to submit your report via Google classroom by the due date.
<b>Marking Process:</b>	You will be marked according to the attached marking criteria.
<b>Outcomes Assessed:</b>	
INS11/12-1	develops and evaluates questions and hypotheses for scientific investigation.
INS11/12-2	designs and evaluates investigations in order to obtain primary and secondary data and information.
INS11/12-3	conducts investigations to collect valid and reliable primary and secondary data and information.
INS11/12-4	selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media.
INS11/12-5	analyses and evaluates primary and secondary data and information
INS11/12-7	communicates scientific understanding using suitable language and terminology for a specific audience or purpose.
INS11-8	identifies that the collection of primary and secondary data initiates scientific investigations

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



Hunter River High School  
**ASSESSMENT TASK 1 – YEAR 11 Investigating Science**

**Task Description:**

Your task is to design and conduct an experiment that will investigate the relationship between the length of a pendulum and its period. You will need to collect and analyse your data then present your findings in a scientific report.

You will be given 5 hours of class time (5 periods) to complete the task. The suggested use of this time is:

**Period 1** – Carry out the experiment and collect the data

**Period 2** – Repeat the experiment if needed. Begin writing the report.

**Period 3** – Continue writing the report

**Period 4** – Continue writing the report.

**Period 5** – Finish writing the report before submission.

You will be provided with the following equipment:

- String
- Boss head + clamp
- Retort stand
- 50g mass
- Stop watch

The requirements and structure of the scientific report can be found in the marking criteria. It is important that you seek feedback from your teacher as you write the report. It is also essential that you continually refer to the marking criteria as you progress through the report.





**Hunter River High School**  
**ASSESSMENT TASK 1 – YEAR 11 Investigating Science**

<b>Total</b>	<b>/50</b>
<b>Course Performance Descriptors</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>▪ demonstrates an extensive knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding succinctly, logically, and consistently using correct and precise scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships, explain phenomena, and make predictions</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, valid, and relevant primary and secondary data, and scientific evidence, by applying processes, modelling and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose comprehensive solutions or explanations for scientific issues or scenarios</li> </ul>	<p><b>A (B6)</b></p> <p><b>45-50</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates thorough knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding, logically, and effectively using correct scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making some modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, and valid primary and secondary data, and scientific evidence, by applying processes, and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose explanations for scientific issues or scenarios</li> </ul>	<p><b>B (B5)</b></p> <p><b>40-45</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates sound knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding effectively using scientific terms and application of nomenclature</li> <li>▪ designs and plans investigations to obtain primary and secondary data and evaluates risks</li> <li>▪ processes and interprets primary and secondary data, and represents it using a range of scientific formats</li> <li>▪ identifies scientific problems, questions, or hypotheses and applies processes, and formats to primary or secondary data</li> <li>▪ applies knowledge and information relevant to scientific issues or scenarios</li> </ul>	<p><b>C (B4)</b></p> <p><b>25-39</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates basic knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using basic scientific terms and application of nomenclature</li> <li>▪ implements scientific processes to obtain primary and secondary data and identifies risks</li> <li>▪ processes primary or secondary data, and represents it using scientific formats</li> <li>▪ responds to scientific problems, questions, or hypotheses</li> <li>▪ recalls scientific knowledge and information</li> </ul>	<p><b>D (B3)</b></p> <p><b>10-24</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates limited knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using limited scientific terms</li> <li>▪ partially outlines investigations to obtain data and information</li> <li>▪ provides simple descriptions of scientific phenomena</li> <li>▪ recalls basic scientific knowledge and information</li> </ul>	<p><b>E (B2)</b></p> <p><b>0-9</b></p>



Scientific Report – Marking Criteria

	1	2	3	4
1. Introduction: <b>(11/12-7)</b>	Performed limited or general background research.	Presents background research with some relevance to the subject of investigation.	Presents background research with relevance to the subject of investigation.  Secondary sources are referenced mostly in the correct format.	Presents background research with relevance to the subject of investigation.  Secondary sources are referenced consistently in the correct format.  Information is communicated using effective metalanguage.
2. Aim: <b>(11/12-1)</b>	Aim without independent  OR dependent variable  OR not linked to the hypothesis.	Aim includes independent and dependant variable that is linked to the hypothesis.		
3. Hypothesis: <b>(11/12-2)</b>	Hypothesis without independent OR dependent variable.	Hypothesis includes independent and dependant variable but not linked to aim.	Hypothesis includes independent and dependant variable and is linked to the aim.	
4. Materials and Method: <b>(11/12-2, 11/12-3)</b>	An attempt at describing the materials and method is made.	Some steps of the method are described.  Some equipment is included in the method.	Most steps of the method are described.  Most of the equipment is included in the method.  Evidence of a fair test is present.	Method is described in sufficient detail.  The use of appropriate equipment is included in the method.  Evidence of a fair test is present.

5. Risk Assessment: <b>(11/12-2, 11/12-3)</b>	A hazard is identified	A hazard is identified and a strategy to minimise the risk included.	Multiple hazards identified with a strategy to minimise the risk of each.	
6. Results – Table: <b>(11/12-4)</b>	Some attempt to present data in a table is made.	Data is presented clearly.  Table includes most of the necessary features.	Data is presented clearly.  Table has all correct headings (including units where appropriate).	
7. Results – Graph: <b>(11/12-4)</b>	Some attempt at producing a graph is made.	Most of the features of the graph are present.	The majority of features of the graph are present.	Appropriate type of graph is used.  Axes are scaled correctly and labelled with correct units.  Appropriate data is plotted accurately.
8. Results – Diagrams/Images	The diagrams/images do not assist in understanding the investigation.	The diagrams/images of the investigation assist the reader in understanding the investigation.		
9. Results – Accompanying Text: <b>(11/12-4)</b>	Some attempt to describe the results is made.	Tables, graphs and diagrams are accompanied by text that describes the results.	Tables, graphs and diagrams are accompanied by text that describes the results.  Trends in data are identified.	Tables, graphs and diagrams are accompanied by detailed text that describes the results.  Trends in data are identified.

<p>10. Discussion – Analysis of Data: <b>(11/12-5)</b></p>	<p>Some attempt is made to explain the results.</p>	<p>The trends identified are explained with some background knowledge.</p>	<p>The trends identified are explained with some background knowledge.</p> <p>Comparison between hypothesis and results.</p>	<p>The trends identified are explained with detailed background knowledge.</p> <p>Comparison between hypothesis and results.</p>
<p>11. Discussion – Validity: <b>(11/12-5)</b></p>	<p>Some reference to variables is made.</p>	<p>Independent and dependent variables are correctly identified.</p> <p>One control variable identified.</p>	<p>Independent and dependent variables are correctly identified.</p> <p>Description of how the other variables were kept constant.</p>	<p>Independent and dependent variables are correctly identified.</p> <p>Detailed description of how the other variables were kept constant.</p> <p>Evaluation of the validity of the experiment.</p>
<p>12. Discussion – Reliability and Accuracy: <b>(11/12-5)</b></p>	<p>Some reference to reliability or accuracy is evident.</p>	<p>ONE feature of reliability is discussed in relation to the investigation.</p> <p>OR</p> <p>ONE step taken to ensure accuracy is discussed.</p>	<p>ONE feature of reliability is discussed in relation to the investigation.</p> <p>ONE step taken to ensure accuracy is discussed.</p>	<p>TWO features of reliability are discussed in relation to the investigation.</p> <p>Steps taken to ensure accuracy are discussed.</p> <p>Evaluation of the accuracy and reliability of the investigation.</p>

<p>13. Discussion – Suggested Improvements: <b>(11/12-5)</b></p>	<p>ONE possible improvement to the investigation is made.</p>	<p>ONE possible improvement to the investigation is made.</p> <p>The improvement is related specifically to validity, reliability or accuracy.</p>	<p>TWO possible improvements to the investigation are made.</p> <p>Each improvement is related specifically to validity, reliability or accuracy.</p>	<p>THREE possible improvements to the investigation are made.</p> <p>Each improvement is related specifically to validity, reliability or accuracy.</p>
<p>14. Conclusion: <b>(11/12-1)</b></p>	<p>Conclusion does not refer to the hypothesis.</p>	<p>Conclusion states if the results support the hypothesis.</p>		
<p>15. References: <b>(11/12-7)</b></p>	<p>Three or less sources are referenced.</p>	<p>Four to seven sources are referenced.</p> <p>References are set out in an appropriate format.</p>	<p>Eight or more sources are referenced.</p> <p>References are set out in an appropriate format.</p>	



Hunter River High School  
**ASSESSMENT TASK 2 – YEAR 11 Investigating Science**

**Notification**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Investigating Science
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Data Analysis
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	
<b>Presentation and Submission Guidelines:</b>	
<b>Marking Process:</b>	You will be marked according to the attached marking criteria.
<b>Outcomes Assessed:</b>	
INS11/12-5 Analyses and evaluates primary and secondary data and information	
INS11/12-6 Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes	
INS11-9 Examines the use of inferences and generalisations in scientific investigations	
INS11-10 Develops, and engages with, modelling as an aid in predicting and simplifying scientific objects and processes	

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



Hunter River High School  
**ASSESSMENT TASK 2 – YEAR 11 Investigating Science**

**Task Description:**

The aim of this task to develop your skills in analysing and evaluating data. Read the questions carefully and write your answers in the space provided.

**Question 1**

A student wanted to investigate if battery life depends on the brand of battery. She purchased five different types of AA batteries and used them to power a torch. She recorded the time for the torch to go out and recorded the results in a table.

Battery Brand	Battery Life (Hours)
Eveready	6.3
Duracell	12.7
Energizer	23.1
Panasonic	16.8
Chevron	12.9

a) Identify the independent variable in this investigation. **(1 mark)**

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b) Identify the dependent variable in this investigation. **(1 mark)**

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c) Identify one controlled variable in this investigation. **(1 mark)**

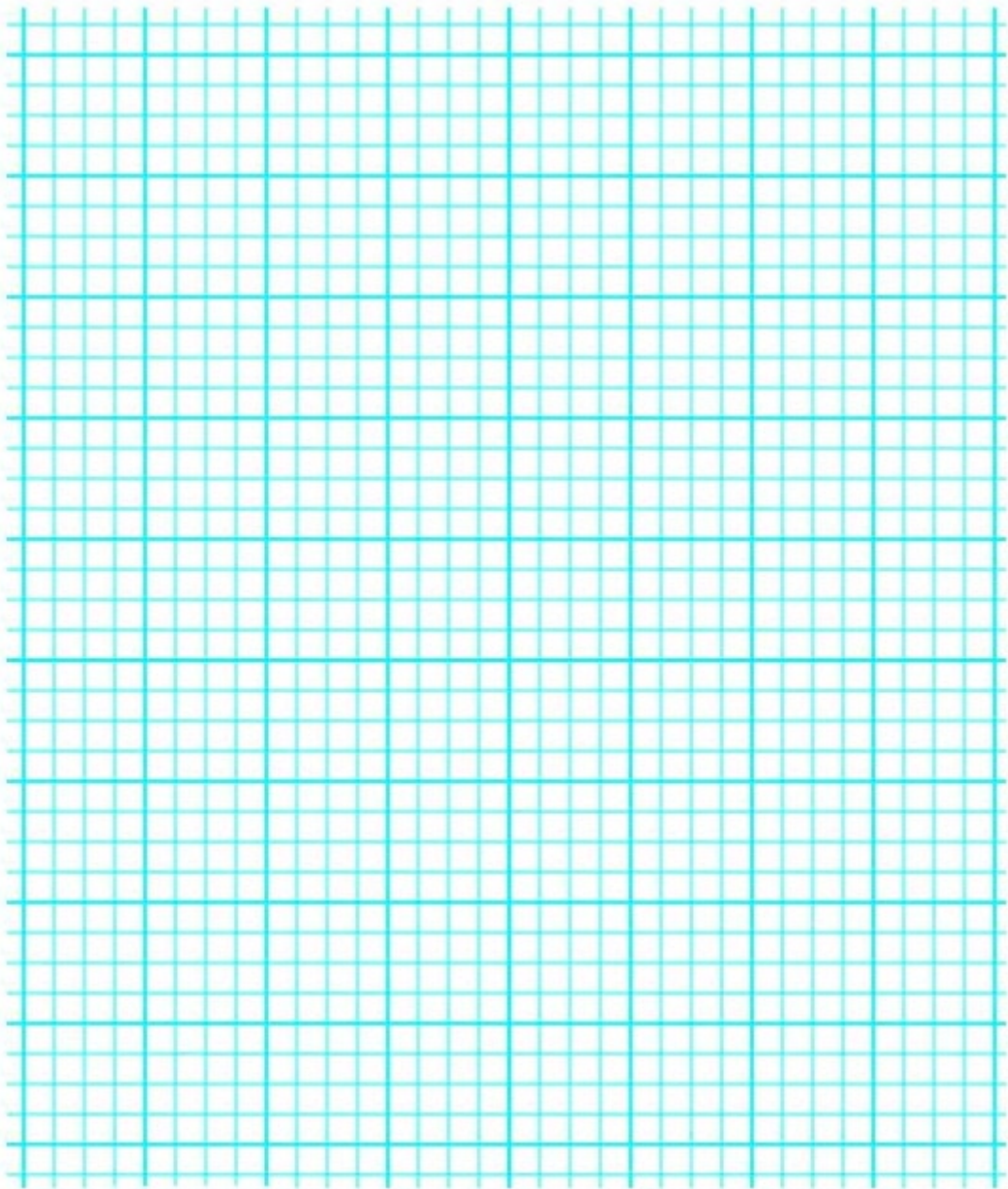
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d) Draw a column graph of this data on the grid provided. **(5 marks)**





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e) Explain TWO ways the student could improve the reliability of her data. (3 marks)

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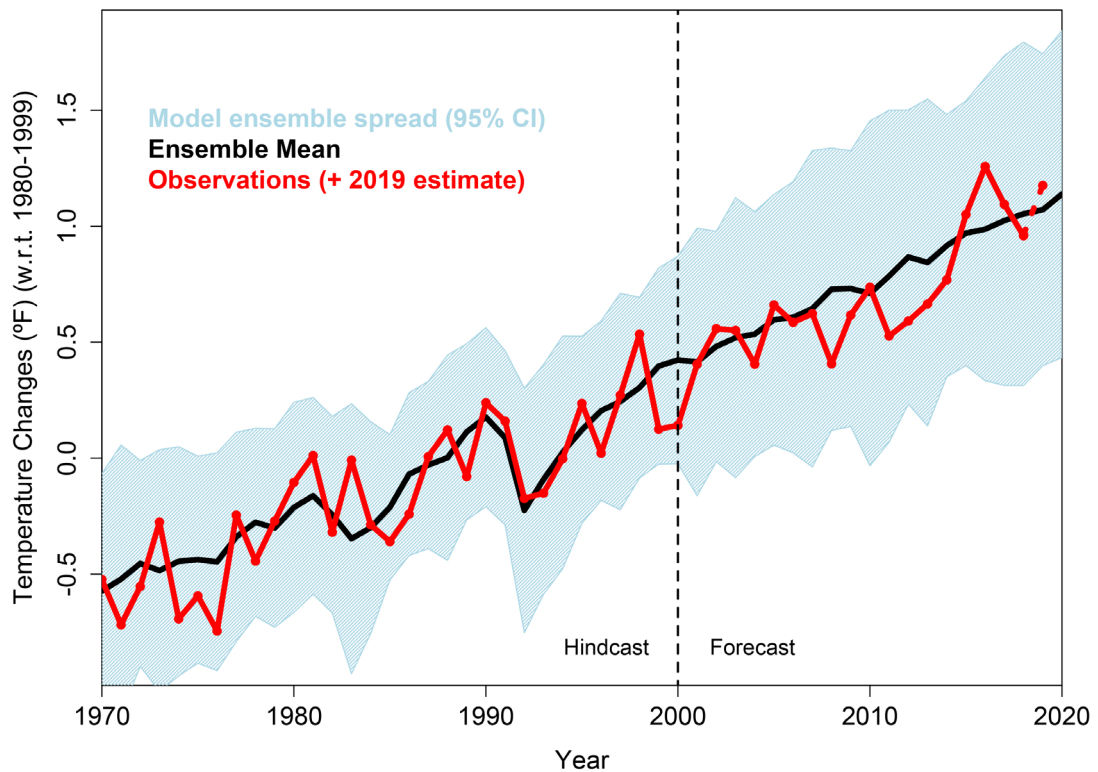
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**Question 2**

To investigate the accuracy of climate models, a group of scientists averaged all the models available and compared them to the actual change in climate. The results of the investigation are shown.

**Forecast evaluation for models run in 2004**





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The ensemble mean (black line) shows the predicted rise in temperature based on the average of all the models available. The red line is the actual change in climate as observed by climate scientists. The shaded blue section shows the variation within different climate models.

- a) Use the data in the graph to describe the trend in global temperatures between 1970 and 2018. **(2 marks)**

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- b) Explain TWO reasons why scientists use climate models. **(3 marks)**

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- c) Discuss the accuracy of climate models in predicting global temperature change. Use the data in the graph to support your answer. **(4 marks)**

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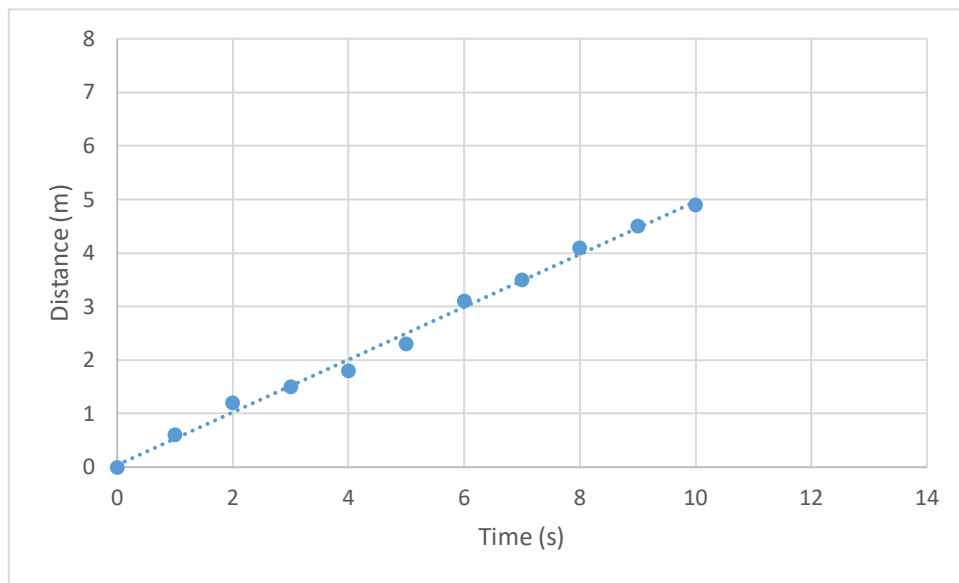
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**Question 3**

A group of students set up an experiment to determine the speed of a toy car. The student set up a 10-meter length of track and recorded how far the toy car had travelled every second. Their results are shown in the graph.



a) Propose a hypothesis for this investigation. **(2 marks)**

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b) Use the line of best fit to predict the distance travelled after 12.5 seconds. **(1 mark)**

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c) Analyse the validity of this experiment. **(3 marks)**

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d) The students were asked to use the data from the graph to calculate the speed of the toy car. Two students used different methods used to calculate the speed. Their methods are shown:

Student 1	Student 2
Speed = gradient of line Gradient = rise/run Gradient = 3/6 Gradient = 0.5 The speed is 0.5 ms <sup>-1</sup>	Using a point from the graph: Distance is 2 m after 1.2 seconds Speed = distance/time Speed = 2/1.2 Speed = 1.67 ms <sup>-1</sup>

Evaluate the methods used by the students to calculate the speed. **(4 marks)**

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**Question 4**

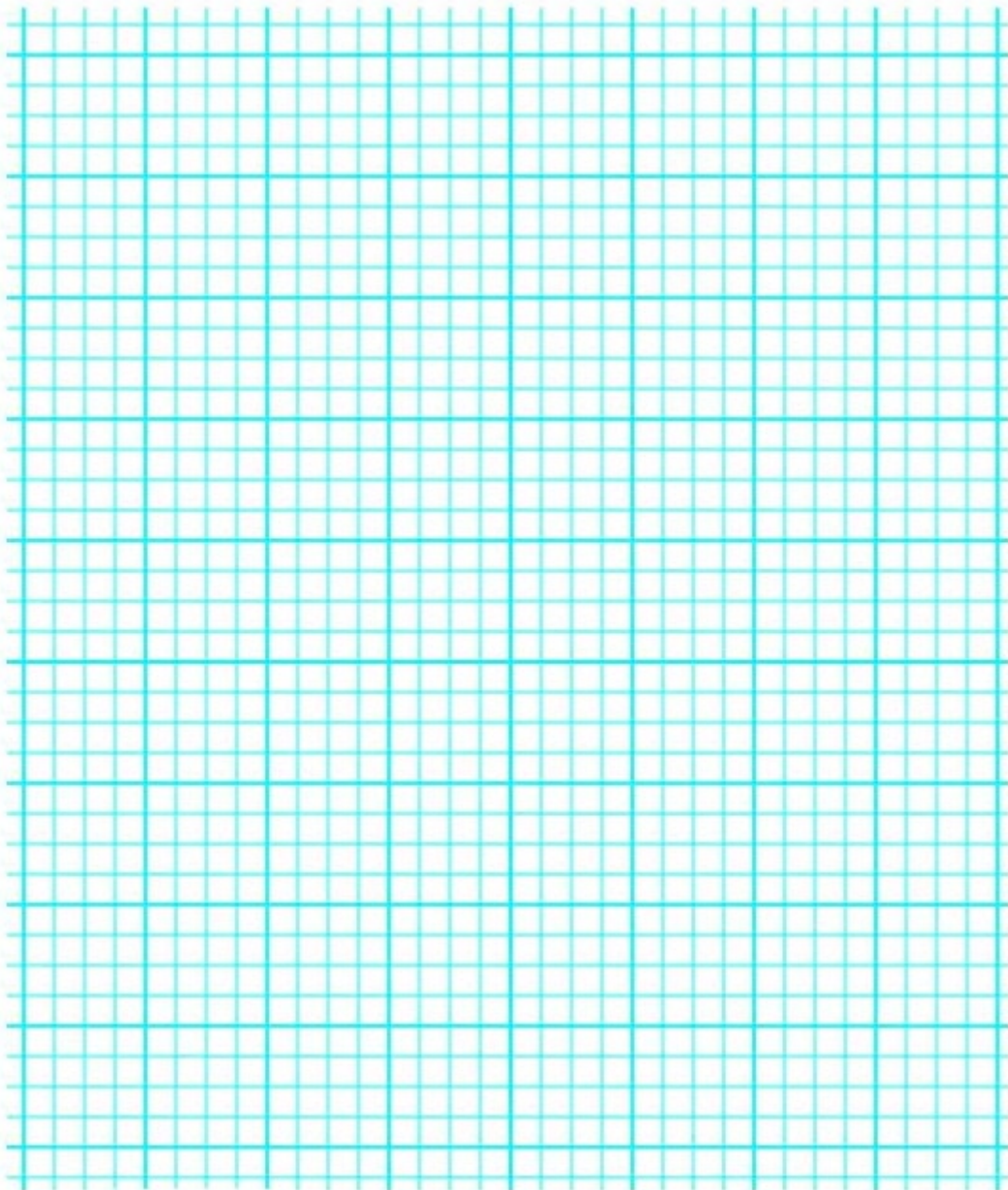
In 1910s, Edwin Hubble was investigating the relationship between the distance of galaxies from Earth and their recessional velocity (how fast they were moving away from Earth). Some of his data is shown in the table.

Distance (Megaparsecs)	Velocity ( $\text{km s}^{-1}$ )
0.2	50
0.6	400
0.7	250
0.9	500
1.1	750
1.4	600
1.6	700
1.8	1050
2	1100

- a) Graph the data on the grid provided. Include a line of best fit. **(5 marks)**



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ASSESSMENT TASK 2 – YEAR 11 Investigating Science







b) Explain why a line of best fit is required for this data. **(2 marks)**

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c) Explain how the trend in the graph was used by Hubble to update the model of the Universe. **(3 marks)**

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**Question 5**

A student wanted to determine the relationship between the concentration of acid and the time taken to produce 5 mL of gas. 50 g of calcium carbonate was placed in a test tube and three different concentrations of acid were used to produce the gas. The student used a stopwatch to time how long it took to produce the 5 mL of gas. The experiment was repeated 5 times for each concentration acid. The results of the experiment are shown.





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Concentration of Acid (M)	Time to Produce 5 mL of Gas (seconds)					
	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Average
1	52.15	49.77	51.81	48.38	48.20	
1.25	43.71	80.09	43.54	45.97	44.26	
1.5	39.67	40.82	38.17	88.47	38.63	

- a) Calculate the average time for each concentration of acid using all the data in the table. **(2 marks)**
- b) The student concluded that changing the concentration of acid did not change the time taken to produce the gas.

Evaluate this conclusion. **(4 marks)**

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**Question 7**

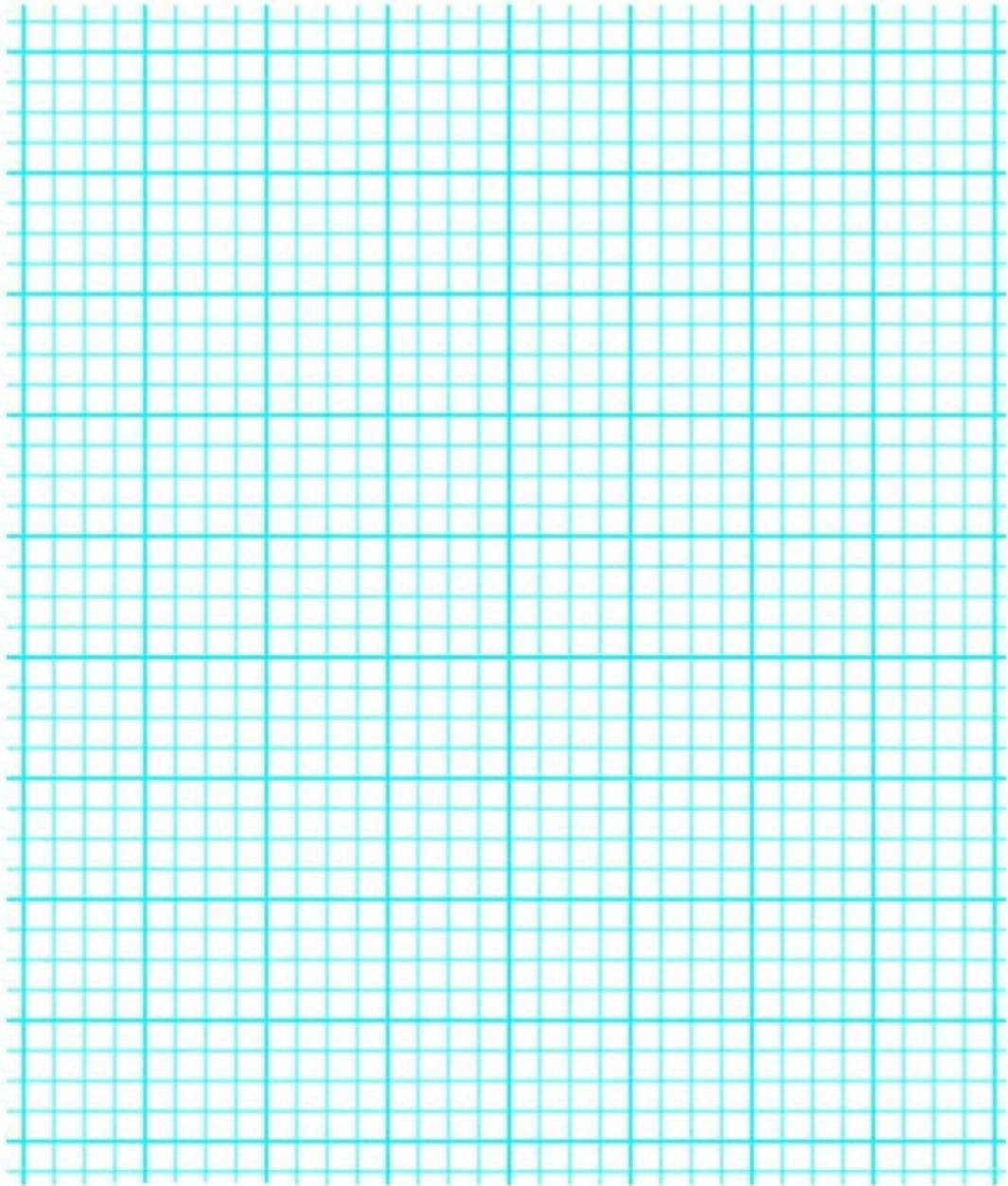
A team of scientists were investigating the relationship between the number of sunspots observed on the Sun and the chance of observing the Aurora Australis in Tasmania. The data from their investigation is shown.

Year	Number of Sunspots	% chance of seeing the Aurora Australis in Tasmania
1996	7	0
1997	22	1
1998	64	5
1999	93	7
2000	120	25
2001	111	16
2002	104	15
2003	64	6
2004	40	5
2005	30	1
2006	15	0
2007	7	0
2008	3	0
2009	3	0
2010	17	1
2011	56	5
2012	58	5

- a) On the grid provided, graph the data in the table. You will need to have year on the x-axis, number of sunspots on the left-hand y-axis and % chance of seeing the Aurora Australis on the right-hand y-axis. Your graph should end up having two lines on it. **(5 marks)**



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ASSESSMENT TASK 2 – YEAR 11 Investigating Science

b) Describe the relationship between the number of sunspots and % chance of seeing the Aurora Australis. **(2 marks)**

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**Hunter River High School**  
**ASSESSMENT TASK 2 – YEAR 11 Investigating Science**

<b>Total</b>	<b>/60</b>
<b>Course Performance Descriptors</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>▪ demonstrates an extensive knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding succinctly, logically, and consistently using correct and precise scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships, explain phenomena, and make predictions</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, valid, and relevant primary and secondary data, and scientific evidence, by applying processes, modelling and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose comprehensive solutions or explanations for scientific issues or scenarios</li> </ul>	<p><b>A (B6)</b></p> <p><b>53-60</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates thorough knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding, logically, and effectively using correct scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making some modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, and valid primary and secondary data, and scientific evidence, by applying processes, and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose explanations for scientific issues or scenarios</li> </ul>	<p><b>B (B5)</b></p> <p><b>45-52</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates sound knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding effectively using scientific terms and application of nomenclature</li> <li>▪ designs and plans investigations to obtain primary and secondary data and evaluates risks</li> <li>▪ processes and interprets primary and secondary data, and represents it using a range of scientific formats</li> <li>▪ identifies scientific problems, questions, or hypotheses and applies processes, and formats to primary or secondary data</li> <li>▪ applies knowledge and information relevant to scientific issues or scenarios</li> </ul>	<p><b>C (B4)</b></p> <p><b>30-44</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates basic knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using basic scientific terms and application of nomenclature</li> <li>▪ implements scientific processes to obtain primary and secondary data and identifies risks</li> <li>▪ processes primary or secondary data, and represents it using scientific formats</li> <li>▪ responds to scientific problems, questions, or hypotheses</li> <li>▪ recalls scientific knowledge and information</li> </ul>	<p><b>D (B3)</b></p> <p><b>15-29</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates limited knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using limited scientific terms</li> <li>▪ partially outlines investigations to obtain data and information</li> <li>▪ provides simple descriptions of scientific phenomena</li> <li>▪ recalls basic scientific knowledge and information</li> </ul>	<p><b>E (B2)</b></p> <p><b>0-14</b></p>





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Question 1a

Criteria	Marks
<ul style="list-style-type: none"><li>States the correct independent variable</li></ul>	1

Question 1b

Criteria	Marks
<ul style="list-style-type: none"><li>States the correct dependent variable</li></ul>	1

Question 1c

Criteria	Marks
<ul style="list-style-type: none"><li>States a suitable controlled variable</li></ul>	1

Question 1d

Criteria	Marks
<ul style="list-style-type: none"><li>Graph includes the following features<ul style="list-style-type: none"><li>Appropriate scale on the Y axis</li><li>Both axes labelled</li><li>Heading</li><li>Graph is a column graph</li><li>Different colour used for each column</li></ul></li></ul>	5
<ul style="list-style-type: none"><li>Graph includes the majority of the features</li></ul>	4
<ul style="list-style-type: none"><li>Graph includes most of features</li></ul>	3
<ul style="list-style-type: none"><li>Graph includes some of the features</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1





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Question 1e

Criteria	Marks
<ul style="list-style-type: none"><li>Identifies TWO features of reliability</li><li>Relates each feature to the experiment</li></ul>	3
<ul style="list-style-type: none"><li>Identifies TWO features of reliability</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>Relates ONE feature of reliability to the experiment</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

Question 2a

Criteria	Marks
<ul style="list-style-type: none"><li>Identifies the correct trend</li><li>Uses data from the graphs</li></ul>	2
<ul style="list-style-type: none"><li>Identifies the correct trend</li></ul>	1

Question 2b

Criteria	Marks
<ul style="list-style-type: none"><li>Identifies TWO reasons</li><li>Demonstrates an understanding of cause and effect relationships</li></ul>	3
<ul style="list-style-type: none"><li>Identifies TWO reasons</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1



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ASSESSMENT TASK 2 – YEAR 11 Investigating Science

Question 2c

Criteria	Marks
<ul style="list-style-type: none"><li>Provides a positive and negative aspect of the accuracy of the climate models</li><li>Uses all the information (red line, black line and blue shaded area) to support the answer.</li></ul>	4
<ul style="list-style-type: none"><li>Provides a positive and negative aspect of the accuracy of the climate models</li><li>Uses some of the information (red line, black line and blue shaded area) to support the answer.</li></ul>	3
<ul style="list-style-type: none"><li>Provides a positive OR negative aspect of the accuracy of the climate models</li><li>Uses a piece of information (red line, black line and blue shaded area) to support the answer.</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

Question 3a

Criteria	Marks
<ul style="list-style-type: none"><li>Hypothesis relates the independent variable to the dependent variable</li><li>Provides a hypothesis that is testable</li></ul>	2
<ul style="list-style-type: none"><li>Provides a correct feature of a hypothesis</li></ul>	1

Question 3b

Criteria	Marks
<ul style="list-style-type: none"><li>Provides the correct distance (within 0.2 meters)</li></ul>	1

Question 3c

Criteria	Marks
<ul style="list-style-type: none"><li>Independent, dependent and controlled variables correctly identified</li><li>Overall statement on validity made</li></ul>	3
<ul style="list-style-type: none"><li>Independent, dependent and controlled variables correctly identified</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1



Hunter River High School  
ASSESSMENT TASK 2 – YEAR 11 Investigating Science

Question 3d

Criteria	Marks
<ul style="list-style-type: none"><li>Both methods are evaluated</li><li>Multiple sources of error are identified</li><li>A judgement regarding the best method is made</li></ul>	4
<ul style="list-style-type: none"><li>Both methods are evaluated</li><li>A source of error is identified</li><li>A judgement regarding the best method is made</li></ul>	3
<ul style="list-style-type: none"><li>Both methods are evaluated</li><li>A source of error is identified</li></ul>	2
OR	
<ul style="list-style-type: none"><li>A judgement regarding the best method is made</li></ul>	
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

Question 4a

Criteria	Marks
<ul style="list-style-type: none"><li>Graph includes the following features<ul style="list-style-type: none"><li>Appropriate scale on the X and Y axis</li><li>Both axes labelled</li><li>Heading</li><li>Points plotted correctly</li><li>Appropriate line of best fit</li></ul></li></ul>	5
<ul style="list-style-type: none"><li>Graph includes the majority of the features</li></ul>	4
<ul style="list-style-type: none"><li>Graph includes most of features</li></ul>	3
<ul style="list-style-type: none"><li>Graph includes some of the features</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1



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ASSESSMENT TASK 2 – YEAR 11 Investigating Science

Question 4b

Criteria	Marks
<ul style="list-style-type: none"><li>• Demonstrates some understanding of cause and effect relationships</li><li>• Uses data from the graph</li></ul>	2
<ul style="list-style-type: none"><li>• Demonstrates some understanding of cause and effect relationships</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>• Uses data from the graph</li></ul>	1

Question 4c

Criteria	Marks
<ul style="list-style-type: none"><li>• Describes the relationship between the velocity of a galaxy and its distance from Earth</li><li>• Explains how the relationship was used to update the model of the universe</li></ul>	3
<ul style="list-style-type: none"><li>• Describes the relationship between the velocity of a galaxy and its distance from Earth</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>• Explains how the relationship was used to update the model of the universe</li></ul>	2
<ul style="list-style-type: none"><li>• Provides some relevant information</li></ul>	1



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Question 5a

Criteria	Marks
<ul style="list-style-type: none"><li>All averages are calculated correctly</li></ul>	2
<ul style="list-style-type: none"><li>One correct average</li></ul>	1

Question 5b

Criteria	Marks
<ul style="list-style-type: none"><li>Uses a feature of reliability to analyse the data</li><li>Provides the correct averages</li><li>Provides a judgement of the conclusion</li></ul>	4
<ul style="list-style-type: none"><li>Uses a feature of reliability to analyse the data</li><li>Provides a judgement of the conclusion</li></ul>	3
<ul style="list-style-type: none"><li>Uses a feature of reliability to analyse the data</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

Question 6

Criteria	Marks
<ul style="list-style-type: none"><li>Identifies TWO specific examples of changes to the model of the atom</li><li>Describes the experimental evidence that led to the change in the model for each example</li><li>Links the new evidence to the updated model for each example</li><li>Makes a judgment regarding the important of new evidence</li></ul>	7
<ul style="list-style-type: none"><li>Identifies TWO specific examples of changes to the model of the atom</li><li>Describes the experimental evidence that led to the change in the model for one of the examples</li><li>Links the new evidence to the updated model for one of the examples</li><li>Makes a judgment regarding the important of new evidence</li></ul>	5-6
<ul style="list-style-type: none"><li>Identifies TWO specific examples of changes to the model of the atom</li><li>Describes the experimental evidence that led to the change in the model for one of the examples</li><li>Makes a judgment regarding the important of new evidence</li></ul>	3-4
<ul style="list-style-type: none"><li>Identifies ONE specific example of changes to the model of the atom</li><li>Makes a judgment regarding the important of new evidence</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1



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ASSESSMENT TASK 2 – YEAR 11 Investigating Science

Question 7a

Criteria	Marks
<ul style="list-style-type: none"><li>Graph includes the following features<ul style="list-style-type: none"><li>Appropriate scales on both the Y and X axes</li><li>Axes labelled</li><li>Key</li><li>All points plotted correctly</li><li>Both data sets plotted on the same graph</li><li>Heading</li></ul></li></ul>	5
<ul style="list-style-type: none"><li>Graph includes the majority of the features</li></ul>	4
<ul style="list-style-type: none"><li>Graph includes most of features</li></ul>	3
<ul style="list-style-type: none"><li>Graph includes some of the features</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

Question 7b

Criteria	Marks
<ul style="list-style-type: none"><li>Describes the relationship between sunspots and % change of seeing the Aurora Australis</li><li>Uses data from the graphs</li></ul>	2
<ul style="list-style-type: none"><li>Describes the relationship between sunspots and % change of seeing the Aurora Australis</li></ul>	1

# Investigating Science Year 11 Course Content

## Year 11 Course Structure and Requirements

		<b>Modules</b>	<b>Indicative hours</b>	<b>Depth studies</b>
<b>Year 11 course (120 hours)</b>	<b>Working Scientifically Skills</b>	<b>Module 1</b> Cause and Effect – Observing	60	*30 hours in Modules 1–4
		<b>Module 2</b> Cause and Effect – Inferences and Generalisations		
		<b>Module 3</b> Scientific Models	60	
		<b>Module 4</b> Theories and Laws		

\*30 hours must be allocated to depth studies within the 120 indicative course hours.

## Requirements for Practical Investigations

Scientific investigations include both practical investigations and secondary-sourced investigations. Practical investigations are an essential part of the Year 11 course and must occupy a minimum of 35 hours of course time, including time allocated to practical investigations in depth studies.

Practical investigations include:

- undertaking laboratory experiments, including the use of appropriate digital technologies
- fieldwork.

Secondary-sourced investigations include:

- locating and accessing a wide range of secondary data and/or information
- using and reorganising secondary data and/or information.

## Working Scientifically Skills

It is expected that the content of each skill will be addressed by the end of the Stage 6 course.

## Questioning and Predicting

### Outcomes

**A student:**

- › develops and evaluates questions and hypotheses for scientific investigation INS11/12-1

### Content

Students:

- develop and evaluate inquiry questions and hypotheses to identify a concept that can be investigated scientifically, involving primary and secondary data 📄
- modify questions and hypotheses to reflect new evidence ⚙️

## Planning Investigations

### Outcomes

**A student:**

- › designs and evaluates investigations in order to obtain primary and secondary data and information INS11/12-2

### Content

Students:

- assess risks, consider ethical issues and select appropriate materials and technologies when designing and planning an investigation ⚖️ 🧪
- justify and evaluate the use of variables and experimental controls to ensure that a valid procedure is developed that allows for the reliable collection of data
- evaluate and modify an investigation in response to new evidence ⚙️



## Conducting Investigations

### Outcomes

#### A student:

- › conducts investigations to collect valid and reliable primary and secondary data and information  
INS11/12-3

### Content

Students:

- employ and evaluate safe work practices and manage risks 🛠️ ⚠️
- use appropriate technologies to ensure and evaluate accuracy 🖥️ 📄
- select and extract information from a wide range of reliable secondary sources and acknowledge them using an accepted referencing style 📖

## Processing Data and Information

### Outcomes

#### A student:

- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media INS11/12-4

### Content

Students:

- select qualitative and quantitative data and information and represent them using a range of formats, digital technologies and appropriate media 📖 📄
- apply quantitative processes where appropriate 📊
- evaluate and improve the quality of data ⚙️ 📄

## Analysing Data and Information

### Outcomes

#### A student:

- › analyses and evaluates primary and secondary data and information INS11/12-5

### Content

Students:

- derive trends, patterns and relationships in data and information
- assess error, uncertainty and limitations in data ⚙️
- assess the relevance, accuracy, validity and reliability of primary and secondary data and suggest improvements to investigations ⚙️ 📄

## Problem Solving

### Outcomes

**A student:**

- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes INS11/12-6

### Content

## Students:

- use modelling (including mathematical examples) to explain phenomena, make predictions and solve problems using evidence from primary and secondary sources ⚙️
- use scientific evidence and critical thinking skills to solve problems ⚙️

## Communicating

### Outcomes

**A student:**

- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose INS11/12-7

### Content

## Students:

- select and use suitable forms of digital, visual, written and/or oral forms of communication 🗨️ 📺
- select and apply appropriate scientific notations, nomenclature and scientific language to communicate in a variety of contexts 🗨️ 📺
- construct evidence-based arguments and engage in peer feedback to evaluate an argument or conclusion 🗨️ ⚙️

## Module 1: Cause and Effect – Observing

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation INS11/12-1
- › conducts investigations to collect valid and reliable primary and secondary data and information INS11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media INS11/12-4
- › identifies that the collection of primary and secondary data initiates scientific investigations INS11-8

**Related Life Skills outcomes:** SCLS6-1, SCLS6-3, SCLS6-4, SCLS6-8

### Content Focus

Observation instigates all scientific experimentation. Investigative scientific processes can only be applied to phenomena that can be observed and measured. Detailed observations motivate scientists to ask questions about the causes and the effects of phenomena they observe. In this way, science continues to progress and enhance the lives of individuals and society by encouraging a continued search for reason and understanding.

Students explore the importance of observation and the collection of quantitative and qualitative data in scientific investigations. They conduct their own practical investigation, either individually or collaboratively, which is used to demonstrate the importance of making detailed and accurate observations, determining the types of variables and formulating testable scientific hypotheses.

### Working Scientifically

In this module, students focus on developing hypotheses that arise from their observations and evaluate these in order to gather, select and process appropriate qualitative and quantitative data. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.








### Content

#### Role of Observations

**Inquiry question:** How does observation instigate scientific investigation?

Students:







- carry out a practical investigation to record both quantitative and qualitative data from observations, for example:
  - burning a candle floating in a closed container
  - the behaviour of slaters in a dry/wet or light/dark environment
  - the Bernoulli effect
  - strata in rock cuttings
- discuss and evaluate the characteristics of observations made compared to inferences drawn in respect of the practical investigation 🗨️

- research how observation has instigated experimentation to investigate cause and effect in historical examples, including but not limited to:  
  - Archimedes observing the displacement of water
  - Alexander Fleming's observations of the effect of mould on bacteria
  - Galileo's observations of the movement of Jupiter's moons
- assess ways in which Aboriginal and Torres Strait Islander Peoples use observation to develop an understanding of Country and Place in order to create innovative ways of managing the natural environment, including but not limited to:     
  - firestick farming
  - knowledge about plants for medicinal purposes

## Observations

**Inquiry question:** What are the benefits and drawbacks of qualitative and quantitative observations?








Students:

- carry out a practical activity to qualitatively and quantitatively describe, for example:
  - microscopic images of a variety of cells
  - geological strata in rock faces and road cuttings
  - an object falling due to gravity
  - characteristics of acids and bases
- analyse the quantitative data from the following information sources, including but not limited to:   
  - digital images and hand-drawn diagrams of cells
  - geological succession obtained from rock strata
  - graphs of results obtained from observations of an object falling due to gravity
  - data showing the pH of acids and bases
- evaluate the differences between qualitative and quantitative observations and data and where these are used   

## Observations as Evidence

**Inquiry question:** How does primary data provide evidence for further investigation?

Students:

- use data gathered to plan a practical investigation to:  
  - pose further questions that will be investigated
  - discuss the role of variables
  - determine the independent and dependent variables
  - formulate a hypothesis that links the independent and dependent variables
  - describe at least three variables that should be controlled in order to increase the validity of the investigation
- develop a method to collect primary data for a practical investigation by:  
  - describing how to change the independent variable
  - determining the characteristics of the measurements that will form the dependent variable
  - describing how the data will be collected
  - describing how the controlled variables will be made consistent
  - describing how risks can be minimised
- evaluate how observation is limited by the observational tools available, including but not limited to:   
  - observing the Universe
  - digital versus analogue technologies

## Observing, Collecting and Recording Data

**Inquiry question:** How does the collection and presentation of primary data affect the outcome of a scientific investigation?

Students:

- carry out the planned practical investigation, above, to collect primary data ⚙️ 📄 ⭐
- apply conventions for collecting and recording observations to qualitatively and quantitatively analyse the primary data, including but not limited to: ⚙️ 📄 🖱️ ⭐
  - tabulation
  - graphing
  - visual representations
  - digital representations
- compare the usefulness of observations recorded in the initial practical activity with the primary data gathered in this planned practical investigation

## Conclusions Promote Further Observations

**Inquiry question:** How do conclusions drawn from the interpretation of primary data promote further scientific investigation?

Students:

- draw conclusions from the analysis of the primary data collected in the practical investigation ⚙️ ⭐
- evaluate the process of drawing conclusions from the primary data collected
- assess the findings of the scientific investigation in relation to the findings of other related investigations
- assess the need to make further observations by gathering data about other phenomena arising from the practical investigation ⚙️ ⭐

## Module 2: Cause and Effect – Inferences and Generalisations

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation INS11/12-1
- › designs and evaluates investigations in order to obtain primary and secondary data and information INS11/12-2
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media INS11/12-4
- › examines the use of inferences and generalisations in scientific investigations INS11-9

**Related Life Skills outcomes:** SCLS6-1, SCLS6-2, SCLS6-4, SCLS6-9

### Content Focus

Scientific inquiry follows on from humans making inferences and generalisations from commonly held understandings. Such inferences and generalisations have led to a wide range of investigations being performed throughout history, culminating in breakthroughs in scientific understanding. Many hypotheses, when found to be correct, have generated further inquiry and created the need to develop new technologies for further observation.

Students consider primary and secondary-sourced data and its influence on scientific investigations. In this module, students engage in gathering primary and secondary-sourced data to assist them in conducting and reporting on investigations, and to further develop their understanding of the central roles of scientific questioning and collaboration in the pursuit of scientific truth.

### Working Scientifically

In this module, students focus on designing and evaluating investigations, drawing inferences, making generalisations, and developing and testing hypotheses through the collection and processing of data. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Observations and Inferences

**Inquiry question:** What inferences can be drawn from observations?

Students:

- investigate the practices of Aboriginal and Torres Strait Islander Peoples that relate to observations and inferences, including but not limited to: 🖐️
  - leaching of toxins in bush tucker
  - locating sources of freshwater within bodies of salt water

- conduct a collaborative practical investigation and collect a range of qualitative and quantitative primary data from one of the following: ⚙️ 📱 📄
  - growth of plants
  - reactions of calcium carbonate
  - the 'life' of different batteries under different circumstances
  - water quality of a pond or local stream
- make inferences and conclusions derived from the primary data collected in this collaborative practical investigation

## Using Secondary-sourced Data

**Inquiry question:** How is secondary-sourced data used in practical investigations?

Students:

- collect qualitative and quantitative secondary-sourced data to validate the inferences and conclusions drawn from the practical investigation carried out above, based on one or more of the following: ⚙️ 📱 📄
  - the effect of soil salinity on plant growth
  - chemical reactions in cave formation
  - energy storage
  - methods of water monitoring
- discuss how secondary-sourced data adds to the inferences and conclusions drawn from primary data
- evaluate the usefulness of considering secondary-sourced research before undertaking an investigation to collect primary data, in order to: ⚙️
  - make inferences
  - develop inquiry questions
  - construct suitable hypotheses
  - plan suitable investigations
  - avoid unnecessary investigation

## Observing Patterns

**Inquiry question:** How does humans' ability to recognise patterns affect the way they interpret data?

Students:

- describe patterns that have been observed over time throughout the Universe and in nature using, for example: ⚙️
  - animal migration
  - movement of comets
  - formation and shape of snow crystals
  - elements exhibiting certain properties
- interpret data in order to propose a hypothesis based on an irregular pattern observed over time in the Universe and in nature using, for example: ⚙️ 📱 📄
  - the Aurora Australis
  - fractals in nature
  - the behaviour of unstable isotopes
- examine the human tendency to observe patterns and misinterpret information, for example:
  - pareidolia
  - optical illusions
- discuss how the tendency to recognise patterns, even when they may not exist, can lead to misinterpretation of data
- discuss the role and significance of outliers in data

## Developing Inquiry Questions

**Inquiry question:** How can hypotheses and assumptions be tested?

Students:

- gather secondary-sourced data describing historical instances of long-standing assumptions that have been updated by scientific investigation, including but not limited to: ⚙️ ⚖️
  - spontaneous generation and the investigations that led to the proposal of the germ theory
  - radioactivity: including the work of Henri Becquerel and Marie Curie
  - phlogiston theory
  - human influences on atmospheric pollution
- propose an inquiry question, construct a hypothesis and conduct an investigation that tests a common assumption, for example:
  - washing with antibacterial soap kills more germs than washing with normal soap
  - the Sun rises in the East and sets in the West
  - what goes up must come down
- use appropriate representations to analyse the data ⚙️ 📊 📄 📱

## Generalisations in Science

**Inquiry question:** What generalisations and assumptions are made from observed data?

Students:

- make generalisations to describe any trends found in the data 📊 📱
- draw conclusion based on generalisations 📊 📱

## Peer Review

**Inquiry question:** What role do peers play in scientific investigation?

Students:

- assess the input that collaborative teams and alternative perspectives have had on the development of hypotheses and research questions that have contributed to the development of, for example: 🌐 ⚙️
  - particle accelerators
  - periodic table
  - study of bioastronomy
  - geological uniformitarianism
- assess the scientific community's current understanding of scientific mysteries and outline why this understanding remains incomplete, including but not limited to: ⚙️ 📊
  - origins of life on the Earth
  - the idea that feynmanium is the last chemical on the periodic table that could exist
  - the expanding Universe and Hubble constant
- evaluate biases that may have affected the scientific thinking of European settlers about Aboriginal and Torres Strait Islander Peoples' ecological understanding and knowledge of Country and Place in relation to agricultural practices and the biological and natural resources of Australia  
👉 📄 📊 🌐 📱



## Module 3: Scientific Models

### Outcomes

#### A student:

- › designs and evaluates investigations in order to obtain primary and secondary data and information INS11/12-2
- › conducts investigations to collect valid and reliable primary and secondary data and information INS11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media INS11/12-4
- › develops, and engages with, modelling as an aid in predicting and simplifying scientific objects and processes INS11-10

**Related Life Skills outcomes:** SCLS6-2, SCLS6-3, SCLS6-4, SCLS6-10

### Content Focus

Scientific models are developed as a means of helping people understand scientific concepts and representing them in a visual medium. Models are used to make predictions. They may include physical and digital models, which can be refined over time by the inclusion of new scientific knowledge.

Students recognise that many scientific models have limitations and are modified as further evidence comes to light. For this reason, scientific models are continually evaluated for accuracy and applicability by the global scientific community through the process of peer review. Students construct and evaluate their own models, which are generated through practical investigation.

### Working Scientifically




In this module, students focus on designing and evaluating investigations to collect valid and reliable primary and secondary qualitative and quantitative data, and apply scientific modelling. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Models to Inform Understanding

**Inquiry question:** What is a scientific model?

Students:

- examine the types of models that may be used in science, including:   
  - diagrams
  - physical replicas
  - mathematical representations
  - analogies
  - computer simulations

**Inquiry question:** What makes scientific models useful?

Students:

- examine the use of scientific models, including but not limited to: ⚙️ 🖥️ ⭐
  - epidemic models
  - models of the Universe
  - atomic models
  - climate models
- outline how models have been used to illustrate, simplify and represent scientific concepts and processes ⚙️ 🖥️
- explain how scientific models are used to make predictions that are difficult to analyse in the real world due to time frames, size and cost ⚙️ 🖥️ 🖱️
- assess the effectiveness of models at facilitating the understanding of scientific processes, structures and mathematical relationships through the use of: ⚙️ 🖥️
  - diagrams
  - physical replicas
  - mathematical representations
  - analogies
  - computer simulations
- evaluate how scientific models draw on a growing body of data from a wide range of disciplines and technologies to refine predictions and test new hypotheses ⚙️ 🖥️ 🖱️

## Types of Models

**Inquiry question:** When should a particular model be used?

Students:

- explain why new evidence can challenge the use of existing scientific models and may result in those models being contested and refined or replaced, including but not limited to the development of: ⚙️ 🖥️
  - epidemic models
  - models of the Universe
  - atomic models
  - climate models
- compare the limitations of simple and complex scientific models ⚙️ 🖥️

## Constructing a Model

**Inquiry question:** How can a model be constructed to simplify understanding of a scientific concept?

Students:

- investigate a scientific concept or process that can be represented using a model, by: ⚙️ 🖥️ 🖱️ ⭐
  - planning a model with reference to the scientific literature
  - constructing a model using appropriate resources to represent the selected scientific concept
  - demonstrating how the model could be used to make a prediction
  - presenting and evaluating the model through peer feedback ⚙️ 🖥️ 🗣️

## Module 4: Theories and Laws

### Outcomes

#### A student:

- › analyses and evaluates primary and secondary data and information INS11/12-5
- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes INS11/12-6
- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose INS11/12-7
- › describes and assesses how scientific explanations, laws and theories have developed INS11-11

**Related Life Skills outcomes:** SCLS6-5, SCLS6-6, SCLS6-7, SCLS6-10

### Content Focus

The term 'science' comes from the Latin *scientia*, which means 'a knowledge based on demonstrable and reproducible data'. Reproducible data is used by scientists to develop theories and laws to explain and describe phenomena. Theories provide a coherent understanding of a wide range of phenomena. A law is usually a statement that can be expressed as a mathematical relationship. It describes phenomena in nature, with no exceptions, at a point in time. Testing scientific theories drives scientific breakthroughs and questions current understandings.

Students examine how complex models and theories often require a wide range of evidence, which impacts on society and the environment. In this module, students engage in practical and secondary investigations that are related to major theories or laws and their application.

### Working Scientifically









In this module, students focus on analysing and evaluating data to solve problems and communicate ideas about the development of theories and laws. Students should be provided with opportunities to engage with all Working Scientifically skills throughout the course.

### Content

#### Introduction to Scientific Theories and Laws

**Inquiry question:** What are the differences and similarities between scientific theories and laws?







Students:

- collect primary data to investigate the law of conservation of mass   
- collect secondary-sourced data to investigate the theory of plate tectonics   
- compare the characteristics of theories and laws  

## Development of a Theory

**Inquiry question:** What leads to a theory being developed?





Students:

- gather secondary-sourced data to investigate the supporting evidence and development of theories, including but not limited to:   
  - germ theory
  - oxygen theory of combustion
- gather secondary-sourced data to investigate how aspects of a theory can be disproved through the collection of evidence, including:   
  - Geocentric Theory (of the solar system)
  - Theory of Inheritance of Acquired Characteristics
  - Dalton's atomic theory
  - Steady State Theory of the Universe (in cosmology)

## Development of Laws

**Inquiry question:** What leads to the acceptance of a scientific law?










Students:

- gather secondary-sourced data to investigate and assess the evidence that supports scientific laws, including but not limited to:   
  - Newton's Second Law of Motion
  - Avogadro's Law
  - law of superposition
  - Mendel's Law of Dominance
- design and collect primary data to show that results can be predicted by laws, including but not limited to: 
  - Ohm's Law
  - law of conservation of energy

## Application of Theories and Laws in Science

**Inquiry question:** How are theories and laws used in science?

Students:

- investigate how the law of conservation of energy is applied in different science disciplines through primary and secondary-sourced research, including but not limited to:   
  - Chemistry
  - Physics
  - Human Biology
  - Earth and Environmental Science
- demonstrate, using evidence and examples, how diverse phenomena have been unified into specific theories, for example:   
  - atomic theory
  - theory of evolution
  - Big Bang theory
  - plate tectonic theory
- gather secondary-sourced data to investigate how scientific investigations of nuclear reactions and decay changed the way in which the law of conservation of mass and law of conservation of energy are interpreted   



**Industrial  
Technology  
Timber**

# Industrial Technology Timber

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		Industry Task	Preliminary Project and Portfolio	Formal Written Examination
		<u>Date:</u>	<u>Date:</u>	<u>Date:</u>
		Term 1 Week 11	Term 3 Week 6	Term 3 Week 9/10
<u>Outcomes:</u>	<u>Outcomes:</u>	<u>Outcomes:</u>		
1.1,1.2, 2.1, 5.1, P5.2, 6.1, 6.2, 7.1, 7.2	2.1, 2.2, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5.1, 5.2	1.1, 1.2, 2.1, 6.1, 6.2,7.1, 7.2		
TASK WEIGHTINGS				
Knowledge and understanding of course content	<b>40%</b>	20%		20%
Knowledge and skills in the management, communication and production of projects	<b>60%</b>	10%	40%	10%
<b>Total</b>	<b>100%</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

## Outcomes

### A student:

- P1.1 describes the organisation and management of an individual business within the focus area industry
- P1.2 identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
- P2.1 describes and uses safe working practices and correct workshop equipment maintenance techniques
- P2.2 works efficiently in team situations
- P3.1 sketches, produces and interprets drawings in the production of projects
- P3.2 applies research and problem-solving skills
- P3.3 demonstrates appropriate design principles in the production of projects
- P4.1 demonstrates a range of practical skills in the production of projects
- P4.2 demonstrates competency in using relevant equipment, machinery and processes
- P4.3 identifies and explains the properties and characteristics of material/components through the production of projects
- P5.1 uses communication and information processing skills
- P5.2 uses appropriate documentation techniques related to the management of projects
- P6.1 identifies the characteristics of quality manufactured products
- P6.2 identifies and explains the principles of quality and quality control
- P7.1 identifies the impact of one related industry on the social and physical environment
- P7.2 identifies the impact of existing, new and emerging technologies of one related industry on society and the environment

## Industry Related Manufacturing Technology

### Focus Area: Timber Products and Furniture Technologies (Preliminary)

Students learn about:	Students learn to:
<p><b>Materials</b>  <i>Timber and timber products</i></p> <ul style="list-style-type: none"> <li>• structure:               <ul style="list-style-type: none"> <li>– sapwood</li> <li>– heartwood</li> <li>– earlywood</li> <li>– latewood</li> <li>– cambium layer</li> <li>– growth ring</li> <li>– pith</li> <li>– xylem and phloem</li> <li>– bark</li> <li>– photosynthesis</li> </ul> </li> <li>• properties and characteristics of hardwoods or softwoods:               <ul style="list-style-type: none"> <li>– figure</li> <li>– grain direction</li> <li>– texture</li> <li>– colour</li> <li>– strength</li> <li>– durability</li> <li>– weight</li> <li>– hardness</li> <li>– weathering</li> </ul> </li> <li>• timber industry terms relating to:               <ul style="list-style-type: none"> <li>– grade</li> <li>– sizes:                   <ul style="list-style-type: none"> <li>○ timber boards</li> <li>○ manufactured boards</li> </ul> </li> </ul> </li> <li>• timber defects               <ul style="list-style-type: none"> <li>– splits</li> <li>– checks</li> <li>– warping</li> <li>– shakes</li> <li>– bowing</li> <li>– knots</li> <li>– twists and winds</li> </ul> </li> <li>• manufactured boards, their manufacture, properties and use               <ul style="list-style-type: none"> <li>– plywoods</li> <li>– medium density fibreboards (MDF)</li> <li>– particle boards</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• describe the growth of trees and identify and recognise the various parts of a tree</li> <li>• identify the properties of hardwoods and softwoods and apply them to practical projects</li> <li>• discuss the properties of hardwoods and softwoods and apply them to practical projects</li> <li>• discuss and use timber industry terms in relation to timber sizes and selection</li> <li>• identify the range of sizes of timber boards and manufactured boards and make economical use of them in practical projects</li> <li>• apply the properties of manufactured boards and use them in practical projects</li> <li>• describe the range of manufactured boards available</li> </ul>





Students learn about:	Students learn to:
<ul style="list-style-type: none"> <li>• carcass joints                             <ul style="list-style-type: none"> <li>– rebate</li> <li>– scribed</li> <li>– dovetail</li> <li>– housing</li> </ul> </li> <li>• construction techniques, including:                             <ul style="list-style-type: none"> <li>– sawing</li> <li>– drilling</li> <li>– edge treatments</li> <li>– nailing and screwing</li> <li>– sanding</li> <li>– scraping</li> </ul> </li> <li>• other construction techniques                             <ul style="list-style-type: none"> <li>– turning</li> <li>– carving</li> <li>– inlaying</li> <li>– marquetry</li> <li>– veneering</li> <li>– parquetry and intarsia</li> <li>– laminating</li> <li>– bending</li> <li>– routing</li> </ul> </li> <li>• assembly of components, including:                             <ul style="list-style-type: none"> <li>– test, fit and check joints</li> <li>– dry clamp</li> <li>– use of cramps</li> <li>– testing for square and flatness</li> </ul> </li> <li>• finishing                             <ul style="list-style-type: none"> <li>– preparation</li> <li>– staining</li> <li>– filling</li> <li>– oils</li> <li>– finishes (oil and water-based)</li> <li>– shellac</li> <li>– french polish</li> <li>– spray finishes</li> </ul> </li> </ul> <p><b>Tools and machinery</b></p> <ul style="list-style-type: none"> <li>• the use and maintenance of the tools and machinery involved in the processes listed above</li> </ul>	<ul style="list-style-type: none"> <li>• safely and competently use a wide a range of tools and machinery</li> <li>• conduct basic maintenance procedures on tools and machinery</li> <li>• describe tools and machinery used by industry, not available in the school, but appropriate to the practical activities being undertaken</li> </ul>



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Industrial Technology Preliminary
<b>Teacher:</b>	Scrivener
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Industry Task
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1 Week 11 Friday 3:20pm
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	
<b>Presentation and Submission Guidelines:</b>	Size 12 font, Heading and questions in <b>Bold</b> . Printed, stapled, in a plastic sleeve with your full name in the header.
<b>Marking Process:</b>	Marking will be completed by Mr Scrivener following the marking guidelines and criteria.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1.1	describes the organisation and management of an individual business within the focus area industry
P1.2	identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
P2.1	describes and uses safe working practices and correct workshop equipment maintenance techniques
P5.1	uses communication and information processing skills
P6.1	identifies the characteristics of quality manufactured products
P6.2	identifies and explains the principles of quality and quality control
P7.1	identifies the impact of one related industry on the social and physical environment
P7.2	identifies the impact of existing, new and emerging technologies of one related industry on society and the environment
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	

### Task Description:

The industry study is an extremely important area in the Industrial Technology course. It provides students with the opportunity to experience the real world of industry and expose them to the industrial processes and technologies that may not be available to them in the school setting.

You are required to complete a report on a local manufacturing business. Examples of the report formatting can be found on Google Classroom. You must ensure you answer the questions below.

Following the report, you are to answer two exam styled questions. Use the ALARM template scaffolding to build your responses prior to writing your answers in full. Questions will be similar to those found in the HSC exam.

### Report Questions:

**Title Page** – Include your name, subject name, assessment task title and a relevant image

#### Business Focus

1. Name the local manufacturing business provided. **(1)**
2. What is the address of this company? Provide a screenshot of the location on Google Maps **(2)**
3. Provide a screenshot of; a) their website, and b) their Facebook page **(2)**
4. Describe the range of products the company manufactures. **(3)**
5. Draw a diagram outlining the organisational/management structure. **(3)**

#### Industrial/Mechanical Focus

6. a) Define mechanisation and describe any processes once carried out by hand that is now done by machines? **(4)**  
b) Did this replace any employees? **(1)**  
c) Has this improved productivity? **(1)**

#### Environmental and Sustainability Focus

7. List the resources that the company uses in its products/services? Are there any alternative resources that could be used to cause less impact on the environment? **(5)**
8. What Government Legislation impacts on the company's operations? **(4)**
9. What processes are used to minimise or eliminate pollution that may be caused by the company's production process. **(4)**

#### Further Questions (typical HSC exam style):

**FQ1.** Ergonomics is used to make a business environment safer and more efficient.

**Outline** how a company can use ergonomics in the workplace. **(10 Marks)**

**FQ2. Outline and Assess** strategies that a company could implement to establish and maintain a safe work culture. **(10 Marks)**

## Success Criteria:

### Industry Report Questions:

Refer to the two extended Industry Study Reports on Google Classroom to assist with the information for questions 1 – 9. Questions must be in **your own words**.

### Further Questions Marking guidelines.

#### FQ1.

Introduction: 2mks - provide a description of what ergonomics is, identifying key aspects (1 paragraph, 4-5 sentences)

Body: 6mks- using relevant examples within industry, outline how ergonomics can be used to minimise injuries and increase efficiency. Extensively explain methods that will increase productivity and safety of a company. (new paragraph for each, 2-3 sentences each paragraph)

Conclusion: 2mks- provide concluding statements summarising body of text (1 paragraph)

#### FQ2.

Introduction: 1mks – provide a description of what a safe work culture would look like (1 paragraph, 2-3 sentences)

Body part A: 2mks– outline a range of methods that could be implemented to effectively establish and maintain a safe work culture. (1-2 paragraph, 2-3 sentences each paragraph)

Body part B: 6mks- assess three of the main methods which would be most effective and explain why you believe these would be effective. (3 paragraphs, new paragraph for each method, 2-3 sentences each)

Conclusion: 1mk - concluding statements relating back to topic sentence in introduction.

Marking Criteria:

<b>Business Focus</b>	<b>11-9</b>	<b>8-6</b>	<b>5-4</b>	<b>3-2</b>	<b>1</b>	<b>Mark</b>
	<ul style="list-style-type: none"> <li>• All relevant background information has been provided including images</li> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear, concise and have been elaborated on</li> <li>• Flowcharts are neat, accurate and well presented</li> </ul>	<ul style="list-style-type: none"> <li>• All relevant background information has been provided including images</li> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear</li> <li>• Flowcharts are neat and accurate</li> </ul>	<ul style="list-style-type: none"> <li>• Some relevant background information has been provided</li> <li>• Some questions have been responded to</li> <li>• Responses are basic.</li> <li>• The flowcharts are accurate</li> </ul>	<ul style="list-style-type: none"> <li>• Some basic information has been provided</li> <li>• Basic flowcharts have been provided</li> </ul>	<ul style="list-style-type: none"> <li>• Some basic information has been provided and/or incomplete</li> <li>• Incomplete or no flowcharts</li> </ul>	
<b>Industrial/mechanical focus</b>	<b>6-5</b>	<b>6-5</b>	<b>4-3</b>	<b>2</b>	<b>1</b>	<b>Mark</b>
	<ul style="list-style-type: none"> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear, concise and have been elaborated on.</li> </ul>	<ul style="list-style-type: none"> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear</li> </ul>	<ul style="list-style-type: none"> <li>• Some questions have been responded to</li> <li>• Responses are basic.</li> </ul>	<ul style="list-style-type: none"> <li>• Some basic information has been provided</li> </ul>	<ul style="list-style-type: none"> <li>• Incomplete or some basic information has been provided</li> </ul>	
<b>Environmental and Sustainability Focus</b>	<b>13-10</b>	<b>9-7</b>	<b>6-4</b>	<b>3-2</b>	<b>1</b>	<b>Mark</b>
	<ul style="list-style-type: none"> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear, concise and have been elaborated on.</li> </ul>	<ul style="list-style-type: none"> <li>• All questions have been responded to in the students own words.</li> <li>• Responses are clear</li> </ul>	<ul style="list-style-type: none"> <li>• Some questions have been responded to</li> <li>• Responses are basic.</li> </ul>	<ul style="list-style-type: none"> <li>• Some basic information has been provided</li> </ul>	<ul style="list-style-type: none"> <li>• Incomplete or some basic information has been provided</li> </ul>	



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Industrial Technology Preliminary
<b>Teacher:</b>	Scrivener
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Preliminary Project and Portfolio
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 3 Week 6 Fri (3:30pm)
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Every workshop lesson, designated computer lab lessons throughout terms 2 and 3
<b>Presentation and Submission Guidelines:</b>	<p><i>Via: Hard Copy.</i> Your folio should be presented in an A4 display folder. Your Practical Project must be finished and in storage before the due date and time.</p> <p><i>To: Mr Scrivener in TAS Staffroom. If absent email to: <a href="mailto:brent.scrivener2@det.nsw.edu.au">brent.scrivener2@det.nsw.edu.au</a></i></p>
<b>Marking Process:</b>	Work will be marked by Mr Scrivener (class teacher) following the marking guidelines/criteria provided.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
2.1	describes and uses safe working practices and correct workshop equipment maintenance techniques
2.2	works effectively in team situations
3.1	sketches, produces and interprets drawings in the production of projects
3.2	applies research and problem-solving skills
3.3	demonstrates appropriate design principles in the production of projects
4.1	demonstrates a range of practical skills in the production of projects
4.2	demonstrates competency in using relevant equipment, machinery and processes
4.3	identifies and explains the properties and characteristics of materials/components through the production of projects
5.1	uses communication and information processing skills
5.2	uses appropriate documentation techniques related to the management of projects



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

**Task Description:**

In this task students are to produce a practical project supplied by your teacher and a management folio.

The project to be produced will be supplied, however, minor modifications can be made in consultation with your teacher. All students are to provide all appropriate documentation prior to commencement of practical. This is extremely importance for those who are proposing to make modifications to the supplied design.

The management folio submitted with your practical task should clearly show the development of the project. From concept, through the planning and production stages and evaluate the finished project. You should use the folio guide to give you some direction as to how you should complete your folio. Try not to copy the format shown but use it to give to some ideas on how you should present your work.

Your folio should be presented in an A4 display folder or similar and clearly show evidence of a range of presentation skills, techniques and ICT skills. Well labelled freehand sketches are to be included showing the details of the design. CAD drawings should be provided for the production, working and presentation drawings.

The task will be marked as per the marking scale and rubric supplied.



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

**Marking Criteria**

Marks are distributed in two sections as detailed on the following pages:

- **Design, Management and Communication: 20 marks**
- **Production: 40 Marks**

**This reflects the distribution of marks as awarded by NESA markers in the HSC.**





**Hunter River High School**  
**ASSESSMENT TASK NOTIFICATION**

**Design, Management and Communication**

	<b>20</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>12</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>4</b>	<b>1</b>
<b>Title Page</b>	<ul style="list-style-type: none"> <li>The title page is clear, accurate, and nearly flawless.</li> <li>It contains all appropriate information.</li> <li>The presentation format is neat, highly organized, and attractive.</li> </ul>	<ul style="list-style-type: none"> <li>The title page is good with a few errors that do not affect understanding.</li> <li>It contains all appropriate information.</li> <li>The presentation format is mostly neat and organized with some attention to its appearance.</li> </ul>	<ul style="list-style-type: none"> <li>The title page is satisfactory with some errors that interfere with meaning.</li> <li>It contains most of the required information</li> <li>The presentation is adequate with some attempt at organizational structure.</li> </ul>	<ul style="list-style-type: none"> <li>The title page is poor with many errors.</li> <li>It contains some of the required information</li> <li>The presentation is lacking in some respects with little attempt at organization or attention to appearance.</li> </ul>	<ul style="list-style-type: none"> <li>The title page is unacceptable</li> <li>It contains some of the required information</li> <li>Presentation is disorganized and/or messy.</li> </ul>					
<b>Contents Page</b>	<ul style="list-style-type: none"> <li>The contents page is clear, accurate, and nearly flawless.</li> <li>It contains all appropriate information.</li> <li>The presentation format is neat, highly organized, and attractive.</li> </ul>	<ul style="list-style-type: none"> <li>The contents page is good with a few errors that do not affect understanding.</li> <li>It contains all appropriate information.</li> <li>The presentation format is mostly neat and organized with some attention to its appearance.</li> </ul>	<ul style="list-style-type: none"> <li>The contents page is satisfactory with some errors that interfere with meaning.</li> <li>It contains most of the required information</li> <li>The presentation is adequate with some attempt at organizational structure.</li> </ul>	<ul style="list-style-type: none"> <li>The contents page is poor with many errors.</li> <li>It contains some of the required information</li> <li>The presentation is lacking in some respects with little attempt at organization or attention to appearance.</li> </ul>	<ul style="list-style-type: none"> <li>The contents page is unacceptable</li> <li>It contains some of the required information</li> <li>Presentation is disorganized or messy.</li> </ul>					
<b>Statement of Intent</b>	<ul style="list-style-type: none"> <li>Clarifies the intent of the project by explaining clearly what is to be achieved and why</li> </ul>	<ul style="list-style-type: none"> <li>Clarifies the intent of the project by explaining what is to be achieved and why</li> </ul>	<ul style="list-style-type: none"> <li>Describes the intent of the project and why</li> </ul>	<ul style="list-style-type: none"> <li>Provides an outline of what is to be achieved</li> </ul>	<ul style="list-style-type: none"> <li>Identifies what is to be achieved</li> </ul>					
<b>Research of Existing Designs</b>	<ul style="list-style-type: none"> <li>Provides an explicit evaluation of existing designs of appropriate projects relevant to the chosen project and relates this clearly to the chosen works</li> </ul>	<ul style="list-style-type: none"> <li>Provides a thorough evaluation of existing designs of appropriate projects relevant to the chosen project</li> </ul>	<ul style="list-style-type: none"> <li>Provides a brief evaluation of existing designs of appropriate projects relevant to the chosen project</li> </ul>	<ul style="list-style-type: none"> <li>Provides a basic evaluation of existing designs of appropriate projects relevant to the chosen project</li> </ul>	<ul style="list-style-type: none"> <li>Limited evaluation of existing design conducted</li> </ul>					
<b>Research Construction Methods</b>	<ul style="list-style-type: none"> <li>Identifies and explains suitable techniques used in the construction of the project</li> <li>Provides an explicit evaluation of the manufacturing techniques researched</li> </ul>	<ul style="list-style-type: none"> <li>Identifies and describes suitable techniques used in the construction of the project</li> <li>Provides a thorough evaluation of the manufacturing techniques researched</li> </ul>	<ul style="list-style-type: none"> <li>Identifies and outlines some joints used in the construction of the project</li> <li>Provides a brief evaluation of the manufacturing techniques researched</li> </ul>	<ul style="list-style-type: none"> <li>Minimal research conducted</li> <li>Provides a basic evaluation of the manufacturing techniques researched</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate research not conducted</li> <li>Limited evaluations provided</li> </ul>					



**Hunter River High School**  
**ASSESSMENT TASK NOTIFICATION**

<b>Research Tools/Machines and Equipment</b>	<ul style="list-style-type: none"> <li>Conducts and explains a wide range of relevant research on tools and equipment appropriate for construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>Conducts and describes a range of relevant research on tools and equipment appropriate for use in construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>Conducts and outlines some research on tools and equipment appropriate for construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>Minimal appropriate research conducted</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate research not conducted</li> </ul>
<b>Sketches and Idea Generation</b>	<ul style="list-style-type: none"> <li>Demonstrates very high level skills in sketching and idea generation</li> <li>Provides sketches which clearly show the development of the project starting with multiple options and developing one</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates substantial skills in sketching and idea generation</li> <li>Provides sketches which show the development of the project starting with several options and developing one</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates moderate skills in sketching and idea generation</li> <li>Provides sketches which show the development of the project</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates basic skills in limited areas of sketching and idea generation</li> <li>Provides minimal sketches showing the development of the project</li> </ul>	<ul style="list-style-type: none"> <li>Sketching, idea generation and development of ideas in a very elementary form</li> </ul>
<b>Production, Working Drawings and Presentation Drawings</b>	<ul style="list-style-type: none"> <li>Professionally presented set of complete workshop drawings combining 3D presentation drawings with 2D orthogonal drawings of the constructed project and the parts that make it up.</li> <li>Drawings are fully dimensioned and provide appropriate views to convey appropriate information for production</li> </ul>	<ul style="list-style-type: none"> <li>Well presented set of workshop drawings combining 3D presentation drawings with 2D orthogonal drawings of the constructed project and the parts that make it up.</li> <li>Drawings are dimensioned and provide appropriate views to convey appropriate information for production</li> </ul>	<ul style="list-style-type: none"> <li>Well presented drawings combining 3D presentation drawings with 2D orthogonal drawings of the project.</li> <li>Some dimensions are provided and various views show information to the reader</li> </ul>	<ul style="list-style-type: none"> <li>A combination of 3D and 2D drawings of the project.</li> <li>Some dimensions are provided</li> </ul>	<ul style="list-style-type: none"> <li>Basic drawings with some dimensions in an elementary form.</li> </ul>
<b>Materials List</b>	<ul style="list-style-type: none"> <li>Provides an accurate materials list containing no errors</li> </ul>	<ul style="list-style-type: none"> <li>Provides an accurate materials list with few errors</li> </ul>	<ul style="list-style-type: none"> <li>Provides a materials list, with numerous errors</li> </ul>	<ul style="list-style-type: none"> <li>Provides an incomplete materials list with numerous errors</li> </ul>	<ul style="list-style-type: none"> <li>Provide an elementary compilation of information for the materials list</li> </ul>
<b>Cutting Layouts</b>	<ul style="list-style-type: none"> <li>Provides clear/concise cutting layouts for both sheet and solid material</li> </ul>	<ul style="list-style-type: none"> <li>Provides clear cutting layouts for both sheet and solid material</li> </ul>	<ul style="list-style-type: none"> <li>Provides basic cutting layouts</li> </ul>	<ul style="list-style-type: none"> <li>Provides an incomplete / limited cutting layout</li> </ul>	<ul style="list-style-type: none"> <li>Provide an elementary compilation of information for the cutting layout</li> </ul>
<b>Calculations</b>	<ul style="list-style-type: none"> <li>Provides clear/concise and accurate calculations to enable an accurate pricing for the finance plan</li> </ul>	<ul style="list-style-type: none"> <li>Provides clear and appropriate calculations to enable a pricing for the finance plan</li> </ul>	<ul style="list-style-type: none"> <li>Provides some calculations to enable a pricing for the finance plan</li> </ul>	<ul style="list-style-type: none"> <li>Provides limited calculations</li> </ul>	<ul style="list-style-type: none"> <li>Provide an elementary compilation of information leading to calculations to determine costs.</li> </ul>



**Hunter River High School**  
**ASSESSMENT TASK NOTIFICATION**

<b>Finance Plan</b>	<ul style="list-style-type: none"> <li>• Develops and applies comprehensive and appropriate finance plans</li> <li>• Provides appropriate documentation for expenses</li> </ul>	<ul style="list-style-type: none"> <li>• Develops and applies appropriate finance plans</li> </ul>	<ul style="list-style-type: none"> <li>• Proposes finance plans</li> </ul>	<ul style="list-style-type: none"> <li>• Finance plans are without sufficient detail</li> </ul>	<ul style="list-style-type: none"> <li>• Finance plans are either not appropriate or evident</li> </ul>
<b>Progress Diary</b>	<ul style="list-style-type: none"> <li>• Clearly documents all tasks undertaken to complete the project</li> </ul>	<ul style="list-style-type: none"> <li>• Provides clear documentation for most tasks undertaken to complete the project</li> </ul>	<ul style="list-style-type: none"> <li>• Provides clear documentation for some tasks undertaken to complete the project</li> </ul>	<ul style="list-style-type: none"> <li>• Provides documentation for some tasks undertaken to complete the project</li> </ul>	<ul style="list-style-type: none"> <li>• Provides limited documentation for tasks undertaken to complete the project</li> </ul>
<b>Ongoing Evaluation</b>	<ul style="list-style-type: none"> <li>• Clearly explains issues associated with design and construction of the project</li> <li>• Explains solutions and modifications made to resolve problems as appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• Discusses issues associated with design and construction of the project</li> <li>• Discusses solutions and modifications made to resolve problems as appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• Discusses issues associated with design and construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>• Indicates issues associated with design and construction of the project</li> </ul>	<ul style="list-style-type: none"> <li>• Limited mention of any issues associated with design and construction of the project</li> </ul>
<b>Evaluation in Relation to Statement of Intent</b>	<ul style="list-style-type: none"> <li>• Provides critical evaluation of the project, relating the completed project to the Statement of Intent</li> </ul>	<ul style="list-style-type: none"> <li>• Provides evaluation of the project, relating the completed project to the Statement of Intent</li> </ul>	<ul style="list-style-type: none"> <li>• Provides some evaluation of the project, relating the completed project to the Statement of Intent</li> </ul>	<ul style="list-style-type: none"> <li>• Provides minimal evaluation of the project, relating the completed project to the Statement of Intent</li> </ul>	<ul style="list-style-type: none"> <li>• Provides little evaluation of the project, relating the completed project to the Statement of Intent</li> </ul>
<b>Evaluation in Relation to Planning and Research</b>	<ul style="list-style-type: none"> <li>• Provides critical evaluation of the project, relating the completed project to research and planning</li> </ul>	<ul style="list-style-type: none"> <li>• Provides evaluation of the project, relating the completed project to research and planning</li> </ul>	<ul style="list-style-type: none"> <li>• Provides some evaluation of the project, relating the completed project to research and planning</li> </ul>	<ul style="list-style-type: none"> <li>• Provides minimal evaluation of the project, relating the completed project to research and planning</li> </ul>	<ul style="list-style-type: none"> <li>• Provides little evaluation of the project, relating the completed project to research and planning</li> </ul>
<b>Presentation skills and techniques including ICT skills</b>	<ul style="list-style-type: none"> <li>• Demonstrates a wide range of presentation skills and techniques including ICT skills, appropriate to the development of a project</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a range of presentation skills and techniques including ICT skills, most of which are appropriate to the development of a project</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates some presentation skills and techniques including ICT skills, most of which are appropriate to the development of a project</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates limited presentation skills and techniques appropriate to the development of a project</li> </ul>	<ul style="list-style-type: none"> <li>• Little evidence of presentation skills and techniques appropriate to the development of a project</li> </ul>



**Hunter River High School**  
**ASSESSMENT TASK NOTIFICATION**

<b>Production</b>										
	<b>40</b>	<b>33</b>	<b>32</b>	<b>25</b>	<b>24</b>	<b>17</b>	<b>16</b>	<b>9</b>	<b>8</b>	<b>1</b>
<b>Follows Safe Working Practices</b>	<ul style="list-style-type: none"> <li>Undertakes all tasks with a high degree of maturity and completes all practical work in an extremely safe manner</li> </ul>	<ul style="list-style-type: none"> <li>Undertakes all tasks with a high degree of maturity and completes all practical work in a safe manner</li> </ul>	<ul style="list-style-type: none"> <li>Undertakes all tasks with a high degree of maturity and completes all practical work in a safe manner</li> </ul>	<ul style="list-style-type: none"> <li>Undertakes most tasks with a high degree of maturity and completes all practical work in a safe manner</li> </ul>	<ul style="list-style-type: none"> <li>Undertakes most tasks with a high degree of maturity and completes most practical work in a safe manner</li> </ul>	<ul style="list-style-type: none"> <li>Undertakes some tasks with a some maturity and completes practical work in a safe manner</li> </ul>				
<b>Range of Skills</b>	<ul style="list-style-type: none"> <li>Evidence of high quality in the application of a wide range of skills and techniques in the planning and production</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of high quality in the application of a range of skills and techniques in the planning and production</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of high but inconsistent quality in the application of skills and techniques in the planning and production</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of basic quality in the application of skills and techniques in the planning and production</li> </ul>	<ul style="list-style-type: none"> <li>Little or no evidence of quality in the application of skills and techniques in the planning and development</li> </ul>					
<b>Quality of the Product</b>	<ul style="list-style-type: none"> <li>Demonstrates very high quality of construction with project production</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates high quality of construction with project production.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates substantial quality of construction with project production</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates basic quality of construction with project production</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates poor quality of construction with project production</li> </ul>					
<b>Ability to undertake a range of skills independently / problem solving</b>	<ul style="list-style-type: none"> <li>Works totally independently to construct the project</li> <li>Demonstrates and critically evaluates how solutions to problems encountered in project production are undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Works with minimal assistance to construct the project</li> <li>Demonstrates and explains how solutions to problems encountered in project production are undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Works with assistance to construct the project</li> <li>Demonstrates solutions to some problems in project production</li> </ul>	<ul style="list-style-type: none"> <li>Works with considerable assistance to construct the project</li> <li>Demonstrates limited solutions to basic problems in project production</li> </ul>	<ul style="list-style-type: none"> <li>Works with no independence to construct the project</li> <li>Demonstrates inappropriate solutions to some simple problems in project production</li> </ul>					
<b>Degree of Completion</b>	<ul style="list-style-type: none"> <li>Approx. 100-81% complete</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 80-61% complete</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 60-41% complete</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 40-21% complete</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 20-0% complete</li> </ul>					



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

Student Name:	
Subject/Course:	Industrial Technology Preliminary
Teacher:	Scrivener
Assessment Task Number:	3
Assessment Task Name:	Exam
Date Issued:	
Date and Time Due:	Term 3 Week 9
Weighting:	30%
Class Time Allocated:	During timetabled lesson period 5 + 1 hour
Presentation and Submission Guidelines:	<p><i>Via: Google Classroom. The Quiz Assessment will become <b>available at the beginning of the last lesson of Week 9</b> in the Year 11 Industrial Technology Classroom and <b>close at 3:20pm.</b></i></p> <p><i>If absent or unable to sit the quiz during the designated time email <a href="mailto:brent.scrivener2@det.nsw.edu.au">brent.scrivener2@det.nsw.edu.au</a> before the due date.</i></p>
Marking Process:	

Outcomes Assessed:	
Syllabus Code	Syllabus Description
1.1	describes the organisation and management of an individual business within the focus area industry
1.2	identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
2.1	describes and uses safe working practices and correct workshop equipment maintenance techniques
6.1	identifies the characteristics of quality manufactured products
6.2	identifies and explains the principles of quality control
7.1	identifies the impact on one related industry on the social and physical environment
7.2	identifies the impact of existing, new and emerging technologies of one related industry on society and the environment



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

**Task Description:**

You will complete an exam that follows the same format as the Preliminary and HSC Examinations (i.e. Multiple Choice, Short Answer, Extended Response).

The Quiz will be available at the beginning of the lesson and continue to 3:20pm or until you submit the quiz (whichever comes first).

It is important to answer in your OWN WORDS as Short Answer and Extended Response questions will be digitally checked for plagiarism.

Marks will be awarded as noted in each question after Mr Scrivener has reviewed each quiz.



# **Legal Studies**

## The structure of Legal Studies

	Preliminary		HSC	
<b>Core</b> 40%	<p><b>Core Part I: The legal system</b></p> <ul style="list-style-type: none"> <li>• Basic legal concepts</li> <li>• Sources of contemporary Australian law</li> <li>• Classification of law</li> <li>• Law reform</li> <li>• Law reform in action</li> </ul>		<p><b>Core Part I: Crime</b></p> <ul style="list-style-type: none"> <li>• The nature of crime</li> <li>• The criminal investigation process</li> <li>• The criminal trial process</li> <li>• Sentencing and punishment</li> <li>• Young offenders</li> <li>• International crime</li> </ul>	<b>Core</b> 30%
<b>Core</b> 30%	<p><b>Core Part II: The individual and the law</b></p> <ul style="list-style-type: none"> <li>• Your rights and responsibilities</li> <li>• Resolving disputes</li> <li>• Contemporary issue: the individual and technology</li> </ul>		<p><b>Core Part II: Human rights</b></p> <ul style="list-style-type: none"> <li>• The nature and development of human rights</li> <li>• Promoting and enforcing human rights</li> <li>• Contemporary issue</li> </ul>	<b>Core</b> 20%
<b>Core</b> 30%	<p><b>Core Part III: Law in practice</b></p> <p>The Law in practice unit is designed to provide opportunities for students to deepen their understanding of the principles of law covered in the first sections of the course. <b>This section may be integrated with Part I and/or Part II.</b></p>		<p><b>Part III: Options</b></p> <p><b>Choose Two</b></p> <ul style="list-style-type: none"> <li>• Consumers</li> <li>• Global environmental protection</li> <li>• Family</li> <li>• Indigenous peoples</li> <li>• Shelter</li> <li>• Workplace</li> <li>• World order</li> </ul>	<b>Option</b> 25% each



## Objectives and outcomes

Objectives	Preliminary course outcomes	HSC course outcomes
<p><b>A student develops knowledge and understanding about:</b></p> <p>1. the nature and institutions of domestic and international law</p>	<p><b>A student:</b></p> <p>P1. identifies and applies legal concepts and terminology</p> <p>P2. describes the key features of Australian and international law</p>	<p><b>A student:</b></p> <p>H1. identifies and applies legal concepts and terminology</p> <p>H2. describes and explains key features of and the relationship between Australian and international law</p>
<p>2. the operation of Australian and international legal systems and the significance of the rule of law</p>	<p>P3. describes the operation of domestic and international legal systems</p> <p>P4. discusses the effectiveness of the legal system in addressing issues</p>	<p>H3. analyses the operation of domestic and international legal systems</p> <p>H4. evaluates the effectiveness of the legal system in addressing issues</p>
<p>3. the interrelationship between law, justice and society and the changing nature of the law.</p>	<p>P5. describes the role of law in encouraging cooperation and resolving conflict, as well as initiating and responding to change</p> <p>P6. explains the nature of the interrelationship between the legal system and society</p> <p>P7. evaluates the effectiveness of the law in achieving justice</p>	<p>H5. explains the role of law in encouraging cooperation and resolving conflict, as well as initiating and responding to change</p> <p>H6. assesses the nature of the interrelationship between the legal system and society</p> <p>H7. evaluates the effectiveness of the law in achieving justice</p>
<p><b>A student develops skills in:</b></p> <p>4. investigating, analysing and communicating relevant legal information and issues.</p>	<p>P8. locates, selects and organises legal information from a variety of sources including legislation, cases, media, international instruments and documents</p> <p>P9. communicates legal information using well-structured responses</p> <p>P10. accounts for differing perspectives and interpretations of legal information and issues</p>	<p>H8. locates, selects, organises, synthesises and analyses legal information from a variety of sources including legislation, cases, media, international instruments and documents</p> <p>H9. communicates legal information using well-structured and logical arguments</p> <p>H10. analyses differing perspectives and interpretations of legal information and issues.</p>

## **Performance and Band Descriptors for Legal Studies**

The typical performance in this band:

### **Band 6**

- analyses, synthesises and interprets information to evaluate the effectiveness of the domestic and international legal system in addressing issues
- demonstrates extensive knowledge and understanding of the operation of the legal system and the processes involved in law reform
- synthesises and analyses legal information from a variety of sources including relevant legislation, cases, media, international instruments and documents to support arguments in a domestic and international context
- communicates coherent arguments on contemporary issues from differing perspectives and interpretations
- communicates an argument using relevant legal concepts and terminology

### **Band 5**

- analyses and interprets information to evaluate the effectiveness of the domestic and international legal system in addressing issues
- demonstrates detailed knowledge and understanding of the operation of the legal system and the processes involved in law reform
- uses legal information from a variety of sources including relevant legislation, cases, media, international instruments and documents to support arguments in a domestic and international context
- presents clear arguments on contemporary issues from differing perspectives
- communicates using relevant legal concepts and terminology

### **Band 4**

- provides some analysis of information and issues related to the effectiveness of the domestic and international legal system
- demonstrates good knowledge and understanding of the operation of the legal system and the processes involved in law reform
- uses appropriate legal information from sources including legislation, cases, media, international instruments and documents
- uses appropriate legal concepts and terminology

### **Band 3**

- demonstrates some knowledge and understanding of the issues related to the domestic and /or international legal system
- demonstrates some understanding of the operation of the legal system
- makes reference to sources including legislation, cases, media, international instruments and documents
- uses some legal concepts and terminology

### **Band 2**

- recognises some issues in the legal system
- demonstrates a limited understanding of some aspects of the operations of the legal system
- uses some legal terminology

### **Band 1**

## Legal Studies

Syllabus Outcomes	Syllabus Component Weight	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		The Legal System Topic Test	Individual and the Law Media File	Formal Written Examination
		<b>Date:</b> Term 1 Week 11	<b>Date:</b> Term 3 Week 3	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> P1-4, 6, 8	<b>Outcomes:</b> P1, 4, 6, 8, 9	<b>Outcomes:</b> P1-7, 9-10
<b>TASK WEIGHTINGS</b>				
Knowledge & understanding of course content	40%	15%		25%
Inquiry and research	20%		20%	
Analysis and evaluation	20%	10%	10%	
Communication	20%	5%	10%	5%
<b>Total</b>	<b>100%</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

### Outcomes

#### **A student:**

P1 identifies and applies legal concepts and terminology

P2 describes the key features of Australian and international law

P3 describes the operation of domestic and international legal systems

P4 discusses the effectiveness of the legal system in addressing issues

P5 describes the role of law in encouraging cooperation and resolving conflict, as well as initiating and responding to change

P6 explains the nature of the interrelationship between the legal system and society

P7 evaluates the effectiveness of the law in achieving justice

P8 locates, selects and organises legal information from a variety of sources including legislation, cases, media, international instruments and documents

P9 communicates legal information using well-structured responses

P10 accounts for differing perspectives and interpretations of legal information and issues

## Scope and Sequence – Legal Studies – Year 11

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1	<b>Unit 1: The Legal System. Outcomes: P1, P2, P3, P8, P9, P10</b>									
	Basic Legal Concepts		Sources of Contemporary Australian law			Classification of Law		Law Reform in Action: Native Title		
Term 2	<b>Unit 2: The Individual and the law. Outcomes: P1, P4, P5, P6, P7, P8, P10</b>									
	Law Reform in Action: Native Title, Bail Act					Your Rights and Responsibilities		Individual and Technology		
Term 3	<b>Unit 3: Law in Practice. Outcomes: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10</b>									
	Children and Young People				Mandatory Sentencing			Revision, Exam Time		

## Part I: The legal system

40% of course time

**Principal focus:** Students develop an understanding of the nature and functions of law through the examination of the law-making processes and institutions.

**Themes and challenges to be incorporated throughout this topic:**

- the need for law in the operation of society
- the importance of the rule of law for society
- the relationship between different legal institutions and jurisdictions
- the development of law as a reflection of society
- influences on the Australian legal system.

<b>Students learn about:</b>	<b>Students learn to:</b>
<p><b>1. Basic legal concepts</b></p> <ul style="list-style-type: none"><li>• meaning of law</li><li>• customs, rules and law</li><li>• values and ethics</li><li>• characteristics of just laws</li><li>• nature of justice:<ul style="list-style-type: none"><li>– equality</li><li>– fairness</li><li>– access</li></ul></li><li>• procedural fairness (principles of natural justice)</li><li>• rule of law</li><li>• anarchy</li><li>• tyranny</li></ul> <p><b>2. Sources of contemporary Australian law</b></p> <p><b>common law</b></p> <ul style="list-style-type: none"><li>• British origins, including:<ul style="list-style-type: none"><li>– development of common law</li></ul></li></ul>	<ul style="list-style-type: none"><li>• define law</li><li>• distinguish between customs, rules, laws, values and ethics</li><li>• describe the characteristics of just laws and the nature of justice</li><li>• define and investigate procedural fairness and the rule of law</li><li>• define anarchy and tyranny</li><li>• outline the origin of common law</li></ul>

<ul style="list-style-type: none"> <li>– equity, precedent</li> <li>– adversarial system of trial</li> <li>• court hierarchy: <ul style="list-style-type: none"> <li>– jurisdiction of state and federal courts</li> </ul> </li> </ul> <p><b>statute law</b></p> <ul style="list-style-type: none"> <li>• role and structure of parliament</li> <li>• legislative process</li> <li>• delegated legislation</li> </ul> <p><b>the constitution</b></p> <ul style="list-style-type: none"> <li>• division of powers</li> <li>• separation of powers</li> <li>• role of the High Court</li> </ul> <p><b>Aboriginal and Torres Strait Islander Peoples' customary laws</b></p> <ul style="list-style-type: none"> <li>• diverse nature of customary laws</li> <li>• spiritual basis, significance of land and water</li> <li>• family and kinship</li> <li>• ritual and oral traditions</li> <li>• mediation and sanctions</li> <li>• relevance to contemporary Australian law</li> </ul> <p><b>international law</b></p> <ul style="list-style-type: none"> <li>• differences between domestic and international law</li> <li>• state sovereignty</li> <li>• sources, including: <ul style="list-style-type: none"> <li>– international customary law</li> <li>– instruments (declarations and treaties)</li> <li>– legal decisions, writings</li> </ul> </li> <li>• role of: <ul style="list-style-type: none"> <li>– United Nations</li> <li>– courts and tribunals</li> <li>– intergovernmental organisations</li> <li>– non-government organisations</li> </ul> </li> <li>• relevance to contemporary Australian law</li> </ul>	<ul style="list-style-type: none"> <li>• examine the hierarchy and jurisdiction of state and federal courts</li> </ul> <ul style="list-style-type: none"> <li>• outline the role and structure of parliament and the legislative process</li> <li>• describe the function of delegated legislation</li> </ul> <ul style="list-style-type: none"> <li>• explain the difference between division and separation of powers</li> <li>• examine the role of the High Court in the interpretation of the constitution</li> </ul> <ul style="list-style-type: none"> <li>• examine the characteristics of Aboriginal and Torres Strait Islander Peoples' customary laws</li> <li>• outline the extent to which Aboriginal and Torres Strait Islander Peoples' customary laws have been integrated into Australian law</li> </ul> <ul style="list-style-type: none"> <li>• distinguish between domestic and international law and examine the impact of state sovereignty</li> <li>• examine the sources of international law</li> </ul> <ul style="list-style-type: none"> <li>• describe the role of the various organisations involved in international law</li> <li>• examine how international law impacts on and is incorporated into Australian law</li> </ul>
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### 3. Classification of law

- public law
  - criminal law
  - administrative law
  - constitutional law
- private law (civil law)
  - contract law
  - tort law
  - property law
- criminal and civil court procedures including legal personnel
- common and civil law systems

**It is strongly recommended that if possible students should have the opportunity to observe the operation of one or more courts or tribunals in civil and criminal cases.**

- outline different types of law
- compare the purpose of different types of law
- distinguish between civil and criminal court procedures
- identify the role of legal personnel involved in the court process
- compare and contrast common and civil law systems

<p><b>4. Law reform</b></p> <ul style="list-style-type: none"> <li>• conditions that give rise to law reform including: changing social values, new concepts of justice, new technology</li> <li>• agencies of reform including law reform commissions, parliamentary committees, the media, non-government organisations</li> <li>• mechanisms of reform including courts, parliaments, United Nations intergovernmental organizations</li> </ul> <p><b>5. Law reform in action</b></p> <p><b>Two examples of law reform must be studied. Law reform in relation to native title is mandatory. Another example may be taken from list B or may be a topic of the student's choice.</b></p> <p><b>A) native title</b></p> <ul style="list-style-type: none"> <li>– terra nullius</li> <li>– the roles of the High Court and federal parliament</li> <li>– major native title decisions</li> <li>– legislation</li> </ul> <p><b>B) a contemporary law reform issue (examples of topics that may be studied):</b></p> <ul style="list-style-type: none"> <li>– young drivers and the law</li> <li>– sport and the law</li> <li>– animal welfare</li> <li>– drug use and the law.</li> </ul>	<ul style="list-style-type: none"> <li>• examine the conditions that give rise to law reform</li> <li>• describe the role of agencies involved in law reform</li> <li>• examine the operation of the different mechanisms of reform</li> </ul> <ul style="list-style-type: none"> <li>• explain why terra nullius was an obstacle to achieving native title</li> <li>• examine the roles of the High Court and federal parliament in recognising native title</li> <li>• examine major Australian native title decisions</li> <li>• assess the effectiveness of the law reform process in achieving just outcomes in regard to native title</li> </ul> <ul style="list-style-type: none"> <li>• identify and investigate a contemporary law reform issue</li> <li>• examine the conditions that give rise to the need for law reform, the agencies of reform and mechanisms of reform</li> <li>• assess the effectiveness of law reform in achieving just outcomes with regard to a contemporary law reform issue.</li> </ul>
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Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Legal Studies
<b>Teacher:</b>	Mrs Naylor
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	The Legal System: Topic Test
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1, Week 11
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	1 period
<b>Presentation and Submission Guidelines:</b>	To be completed under test conditions during class time.
<b>Marking Process:</b>	Marked by classroom teacher as per marking rubric.

**Outcomes Assessed:**

<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	Identifies and applies legal concepts and terminology
P2	Describes the key features of Australian and international law
P3	Describes the operation of domestic and international legal systems
P4	Discusses the effectiveness of the legal system in addressing issues
P6	Explains the nature of the interrelationship between the legal system and society
P8	Locates, selects and organises legal information from a variety of sources including legislation, cases, media, international instruments and documents

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

**Principal focus:** Students investigate the way in which the law impacts on individuals by referring to legal and non-legal institutions, laws and media reports.

**Themes and challenges to be incorporated throughout this topic:**

- relationship between justice, law and society
- relationship between rights and responsibilities
- balancing the rights of individuals with the needs of the state
- role of the law in regulating technology
- effectiveness of legal mechanisms for achieving justice for individuals and society.

<b>Students learn about:</b>	<b>Students learn to:</b>
<p><b>1. Your rights and responsibilities</b></p> <ul style="list-style-type: none"> <li>• the nature of individual rights</li> <li>• relationship between rights and responsibilities</li> </ul> <p><b>2. Resolving disputes</b></p> <ul style="list-style-type: none"> <li>• the roles of the federal and state police and other law enforcement agencies</li> <li>• resolving disputes between individuals:                             <ul style="list-style-type: none"> <li>– alternative dispute resolution</li> <li>– tribunals</li> <li>– courts</li> </ul> </li> <li>• resolving disputes with the state:                             <ul style="list-style-type: none"> <li>– non-legal methods:                                     <ul style="list-style-type: none"> <li>- media</li> <li>- members of parliament</li> <li>- trade unions</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• identify the types of rights to which individuals are entitled</li> <li>• outline the responsibilities of citizens within a society</li> <li>• explain the interrelationship between rights and responsibilities</li> <li>• outline the roles of law enforcement agencies</li> <li>• identify and examine methods of resolving disputes between individuals</li> <li>• compare and contrast disputes between individuals and those between individuals and the state</li> <li>• assess the effectiveness of methods of resolving disputes</li> </ul>

- interest groups, including non-government organisations
- legal methods:
  - internal review
  - external review: administrative, judicial, ombudsman, statutory bodies including Australian Human Rights Commission, Independent Commission against Corruption (ICAC), Royal Commissions

**3. Contemporary issue:**

**The individual and technology**

- impacts of technology on the individual
- legal implications
- difficulties with enforcing rights
- future directions – the role of law reform

Examples that may be studied could include:

- misuse of interactive technologies
- cyber-bullying
- genetic profiling
- cyberspace
- privacy issues
- security and surveillance
- mobile phones
- copyright.

- distinguish between non-legal and legal methods of enforcing rights and resolving disputes
- assess the effectiveness of dispute resolution processes in achieving justice for and between individuals
- explain the difficulties with enforcing rights
- assess the role of law reform in addressing emerging technological issues and enforcing rights
- discuss the legal implications of the use of technology and its impact on the individual.



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Legal Studies
<b>Teacher:</b>	Mrs Naylor
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	The Individual and the Law: Media File
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 3, Week 3
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	3 periods for research
<b>Presentation and Submission Guidelines:</b>	Students can choose any format to present their media file either digitally or physically. Task must be submitted by 3.20pm on due date.
<b>Marking Process:</b>	Mrs Naylor will mark based on marking criteria.

**Outcomes Assessed:**

**Syllabus Code    Syllabus Description**

P1	Identifies and applies legal concepts and terminology
P4	Discusses the effectiveness of the legal system in addressing issues
P6	Explains the nature of the interrelationship between the legal system and society
P8	Locates, selects and organises legal information from a variety of sources including legislation, cases, media, international instruments and documents
P9	Communicates legal information using well-structured responses

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

### Task Description:

Legal studies students need to have an understanding of current events and issues to help you're your understanding of topics examined throughout the course. The creation of a media file will help you gain the necessary skills to locate, source and analyse content from a range of different sources.

1. You are to **prepare a media file**. This can be completed in a scrap book, art book or completed digitally (using whatever application you choose). **You must include 15 different articles**. Of these 15, you must include AT LEAST ONE article based on the topics of:
  - Your rights and responsibilities
  - Resolving disputes
  - Contemporary Issue: The Individual and Technology

Articles should be sourced from a variety of reputable sources and could include places like the Sydney Morning Herald or the Sydney Criminal Lawyers blog.

To show your engagement and analysis of the content, each article is to have the following article summary table completed:

Article Summary Table	
Title	List the Title of the article (this could be a link)
Source	Where the article came from i.e Sydney Morning Herald
Date	Date article was published
Key Legal Words	Here list any legal terminology found in the article
Relevant cases, legislation, reports, international law	Here list any cases, legislation etc that is relevant to the argument of the article – this might require further research
Relevant legal studies course themes and challenges	Here write in dot points which legal theme and challenge your article addresses.
Legal Issues	In this box you need to provide an analysis of the article, discuss the legal issue identified within the article and explain why this article is relevant to the topic of either rights and responsibilities, resolving disputes or the individual and technology.

2. You are to select ONE article from the topic area: Contemporary Issue: The Individual and Technology and complete a one page article synopsis. The article synopsis must include the following:
  - **Identify** (recognise and name) the legal issues described in the article
  - **Explain** (relate cause and effect – provide why and/or how) how the article relates to the unit
  - **Demonstrate** (show by example) how the content of the article relates to one or more of the course themes and challenges
  - **Evaluate** (make a judgement based on criteria) the effectiveness of the law in dealing with these issues (criteria for evaluation could include: resource efficiency, accessibility, enforceability, responsiveness, protection of individual rights, meeting societies needs, application of the rule of law – has justice been achieved?)

## Success Criteria:

You will be successful if you can:

- Collect 15 articles from a range of source linked to the Preliminary Legal Studies Course
- Effectively analyse the content of each article and provide a detailed examination in your article summary table
- Provide a detailed article synopsis that evaluates the effectiveness of the law in detailing with the issue identified in your selected article

**A completed version of your article summary table should look like this:**

<b>Title</b>	<b>Andrew Mallard, wrongfully jailed for 12 years over WA murder, killed in hit-and-run crash in US</b>
<b>Source</b>	ABC News - <a href="https://www.abc.net.au/news/2019-04-20/andrew-mallard-killed-in-hit-and-run-in-los-angeles/11032672">https://www.abc.net.au/news/2019-04-20/andrew-mallard-killed-in-hit-and-run-in-los-angeles/11032672</a>
<b>Date</b>	19-04-2019
<b>Key Legal Words</b>	Wrongfully jailed, Convicted, Murder, Sentenced, Pro Bono, Exonerated, Acquittal, Los Angeles Police, Incarceration, Framed, Miscarriage of Justice, Prosecutor, Case, Judges, High Court, Attorney General, Appeal, WA Supreme Court, Allegations, Misconduct.
<b>Stated cases, Legislation, Reports, International Law</b>	At the time of Andrew Mallards conviction, the courts believed he had violated the <u>Crimes Act 1900 – Sect 18</u> for murder and manslaughter. Unfortunately he didn't have the legal right to receive compensation by the government for this miscarriage of justice in the eye of the Australian Law.
<b>Relevant legal studies course themes and challenges</b>	<ul style="list-style-type: none"><li>• The responsiveness of the legal system in dealing with issues.</li><li>• The effectiveness of legal mechanisms in achieving justice for individuals and society.</li></ul>
<b>Legal Issues</b>	This case shows the injustice of rights and responsibilities of an individual, as Andrew Mallard was wrongfully accused of murder and served a lengthy jail sentence for a crime he didn't commit. This raises concern as to how many other people are still incarcerated for a crime they never committed, which also puts the reliability of the Australian Legal system in question. Amidst Mallards conviction, allegations had been investigated for prosecution misconduct which ultimately led to his release. This doesn't add any confidence for the parts of the public who already believe the failure of the legal system.

## Themes and Challenges to be examined within the media file:

- The relationship between justice, law and society
- The development and reform of law as a reflection of society
- The importance of the rule of law
- Balancing the rights of individuals with the needs of the state
- Role of the law in regulating technology
- The responsiveness of the legal system in dealing with issues
- The effectiveness of legal and non-legal mechanisms in achieving justice for individuals and society

**Marking Guidelines:**

**Media File /6**

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Articles</b>	Less than 15 articles presented	Students include at least 15 articles				
<b>Topics</b>	Not all topic areas included	Students include at least one article from each identified topic area				
<b>Range of Sources</b>	Sources not relevant	Students include relevant sources from limited sources	Students include relevant sources from a range of medium			
<b>Presentation</b>	No application to presentation is evident	Articles are presented in a logical order	Articles are presented in a logical order with a neat layout			

**For each article analysis /105**

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Identification of Source</b>	Does not provide details for article	Clearly states the title, source, and date for article				
<b>Key Words</b>	Provides no key legal words	Provides relevant key legal terms				
<b>Legal Studies links</b>	Provides no evidence of legal links	Identifies some legal studies themes and/or relevant cases, legislation, reports etc	Clearly identifies all relevant legal studies themes and challenges and all of the relevant legal concepts			
<b>Legal Issues</b>	No identification of issues or relevance	Identified the legal issues in each article and provides limited outline of relevance of most articles	Identifies the legal issues described in each article and explains the relevance of each article	Succinctly and effectively identifies the legal issues described in each article and clearly explains the relevance of each article		

## Article Synopsis

	0	1	2	3	4	5
<b>Identify</b>	Does not identify relevant legal issue in article	Accurately identifies the relevant legal issue in the article				
<b>Explain</b>	Does not explain why the article relates to a particular unit	Provides detailed explanation as to why the article relates to particular unit				
<b>Demonstrate</b>	Does not link to themes and challenges	Links the article to challenges and themes but no example provided	Links to challenges and themes and provides an example to support	Effectively and in detail shows through example how the article relates to course themes and challenges		
	0	1-2	3-4	5-6	7-8	9-10
<b>Evaluate</b>	No judgement made on the effectiveness of the law in dealing with issues	Limited Judgement made on the effectiveness of the law in dealing with issues	Some judgement made on the effectiveness of the law in dealing with issues	Makes a judgement on the effectiveness of the law in dealing with issues and uses at least 2 criteria to form this judgement	Makes a detailed judgement on the effectiveness of the law in dealing with the issues and uses at least 3 criteria to form this judgement	Makes a sophisticated judgement on the effectiveness of the law in dealing with the issues and uses at least 3 criteria to form this judgement

Feedback:	
<b>Medals</b>	<b>Missions</b>
	•

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	



**Principal focus:** students investigate contemporary issues that illustrate how the law operates in practice.

**Themes and challenges to be incorporated throughout this topic:**

- the relationship between justice, law and society
- the development and reform of law as a reflection of society
- the importance of the rule of law
- the responsiveness of the legal system in dealing with issues
- the effectiveness of legal and non-legal mechanisms in achieving justice for individuals and society.

**At least TWO** contemporary issues should be studied. Students should synthesise information from a range of sources, including cases, legislation, the media and international instruments, to support a legal argument. Topics should extend particular areas of individual or group interests.

<p><b>Students learn about:</b></p> <p>Issues that involve an Australian in a domestic jurisdiction, or Australian citizen(s) in another jurisdiction, focusing on the mechanisms for achieving justice and the responsiveness of the legal system when attempts are made to achieve justice.</p> <p><b>Topics that may be studied include:</b></p> <ul style="list-style-type: none"> <li>• groups or individuals suffering disadvantage:             <ul style="list-style-type: none"> <li>– Aboriginal and Torres Strait Islander Peoples</li> <li>– people who have a mental illness or an intellectual or physical disability</li> <li>– migrants</li> <li>– people who are socioeconomically disadvantaged</li> <li>– members of other groups covered by human rights legislation, including anti-discrimination legislation</li> <li>– women</li> </ul> </li> <li>• events which highlight legal issues</li> <li>• individuals or groups in conflict with the state</li> <li>• criminal or civil cases that raise issues of interest to students.</li> </ul>	<p><b>Students learn to:</b></p> <ul style="list-style-type: none"> <li>• examine at least <b>two</b> contemporary issues that involve Australian citizen(s) in either a domestic or another jurisdiction</li>   <li>• describe the legal and non-legal responses to this issue</li>   <li>• evaluate the effectiveness of the legal and non-legal responses to this issue.             <p><b>Criteria to evaluate effectiveness could include:</b></p> <ul style="list-style-type: none"> <li>– resource efficiency</li> <li>– accessibility</li> <li>– enforceability</li> <li>– responsiveness</li> <li>– protection of individual rights</li> <li>– meeting society’s needs</li> <li>– application of the rule of law</li> <li>– has justice been achieved?</li> </ul> </li> </ul>
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Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Legal Studies
<b>Teacher:</b>	Mrs Naylor
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Examination
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 3, Week 9/10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Exam time will be posted on examination timetable
<b>Presentation and Submission Guidelines:</b>	Students will sit a 2 hour examination in the hall consisting of: <ul style="list-style-type: none"><li>- 20 multiple choice</li><li>- 45 marks short answer</li><li>- 15 mark essay</li></ul>
<b>Marking Process:</b>	Mrs Naylor will mark based on marking criteria

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	Identifies and applies legal concepts and terminology
P2	Describes the key features of Australian and international law
P3	Describes the operation of domestic and international legal systems
P4	Discusses the effectiveness of the legal system in addressing issues
P5	Describes the role of law in encouraging cooperation and resolving conflict, as well as initiating and responding to change
P6	Explains the nature of the interrelationship between the legal system and society
P7	Evaluates the effectiveness of the law in achieving justice
P9	Communicates legal information using well-structured responses
P10	Accounts for differing perspectives and interpretations of legal information and issues

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____



# **Marine Studies**

# Marine Studies

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		Research	Marine Safety	Examination
		<u>Date:</u> Term 1 Week 9	<u>Date:</u> Term 2 Week 8	<u>Date:</u> Term 3 Week 9/10
<u>Outcomes:</u> 1.1, 1.3, 2.3, 3.1, 3.2, 4.2	<u>Outcomes:</u> 1.2, 1.5, 2.2, 3.1, 3.3, 5.3, 5.4	<u>Outcomes:</u> 1.1 → 5.4	<b>TASK WEIGHTINGS</b>	
Modules Assessed		Core 2	Module 5	Core 1-5 Module 5, 13, 16
Skills in working scientifically	60%	25%	25%	10%
Knowledge and understanding of course content	40%	5%	5%	30%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Outcomes

### A student:

- 1.1 relates with a respectful and caring attitude to the ocean and its life forms
- 1.2 identifies the roles of individuals or groups involved in maritime activities
- 1.3 recalls aspects of the maritime environment using relevant conventions, terminology and symbols learned throughout the course
- 1.4 recognises Aboriginal and Torres Strait Islander values and attitudes towards the sea
- 1.5 demonstrates an awareness of the value of the ocean as a source of historical information
- 2.1 appreciates the importance of effective management practice
- 2.2 works effectively within a group
- 2.3 communicates information by writing reports, giving short talks and contributing to discussions
- 3.1 evaluates information, situations, equipment manuals and written or manual procedures
- 3.2 collects and organises data by accurately reading instruments, signals and charts; by systematic recording, summarising, tabulating and graphing
- 3.3 generates information from data by calculating, inferring, interpreting and generalising
- 3.4 carries out planned research activities using appropriate measurements, observations, classification and recording skills
- 4.1 identifies marine vocations and a range of leisure pursuits
- 4.2 appreciates marine environments as sources of employment and leisure
- 5.1 values the rules and operating principles of marine equipment and applies them
- 5.2 applies information including weather, regulations, procedures and skills to ensure safe use of marine environment
- 5.3 interprets and follows instructions, with accuracy
- 5.4 selects, organises, assembles, dismantles, cleans, and returns equipment



Hunter River High School  
**ASSESSMENT TASK 1 – Marine Studies**

**Notification**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Marine Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Research
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1 Week 9
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	7 lessons
<b>Presentation and Submission Guidelines:</b>	Students are required to answer the questions as outlined in the task description below.
<b>Marking Process:</b>	You will be marked according to the attached marking criteria. The task has a maximum of 100 marks and an Assessment Weighting of 40% for the course.
<b>Outcomes Assessed:</b>	
1.1	recalls aspects of the maritime environment using relevant conventions, terminology and symbols learned throughout the course
1.3	demonstrates an awareness of the value of the ocean as a source of historical information
2.3	communicates information by writing reports, giving short talks and contributing to discussions
3.1	evaluates information, situations, equipment manuals and written or manual procedures
3.2	collects and organises data by accurately reading instruments, signals and charts; by systematic recording, summarising, tabulating and graphing
4.2	appreciates marine environments as sources of employment and leisure

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



Hunter River High School  
**ASSESSMENT TASK 1 – Marine Studies**

**Task Description:**

- Complete the Designing Aquaculture Systems Workbook, answering all the relevant questions using the information provided and your observations from the field work. (30 marks as per identified in workbook)
- Present a multimedia presentation (for example a PowerPoint presentation) that outlines the types of aquaponics systems that can be used in aquaculture. Your information should include diagrams and descriptions on each type of system. (10 marks)

Marking Criteria	Marks
<ul style="list-style-type: none"> <li>▪ Completes the Defining Aquaculture Systems Workbook, answering all the relevant questions using the information provided and your observations from the field work.</li> <li>▪ Presents detailed information that outlines the types of aquaponics systems that can be used in aquaculture, including diagrams and descriptions on each type of system in a highly organised and informative manner.</li> </ul>	A (B6) 90 -100
<ul style="list-style-type: none"> <li>▪ Completes the Defining Aquaculture Systems Workbook, answering all the relevant questions using the information provided.</li> <li>▪ Presents information that outlines the types of aquaponics systems that can be used in aquaculture, using limited diagrams and descriptions on each type of system.</li> </ul>	B (B5) 75 - 89
<ul style="list-style-type: none"> <li>▪ Completes the Defining Aquaculture Systems Workbook, answering most of the questions using the information provided.</li> <li>▪ Presents information that briefly outlines the types of aquaponics systems that can be used in aquaculture, including limited diagrams.</li> </ul>	C (B4) 60 - 74
<ul style="list-style-type: none"> <li>▪ Attempts the Defining Aquaculture Systems Workbook, answering the majority of questions using the information provided.</li> <li>▪ Presents information that briefly outlines the types of aquaponics systems that can be used in aquaculture. (No illustrations used)</li> </ul>	D (B3) 40 - 59
<ul style="list-style-type: none"> <li>▪ Attempts the Defining Aquaculture Systems Workbook, using the information provided.</li> <li>▪ Presents information that briefly outlines one type of aquaponics system that can be used in aquaculture. (No illustrations used).</li> </ul>	E (B2) 0 - 39
<b>Total Marks</b>	<b>/100</b>





Hunter River High School  
**ASSESSMENT TASK 1 – Marine Studies**

**MARKING CRITERIA**

**Aquaculture**

**Question 1**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Identifies types of aquatic organisms that can be farmed</li></ul>	1
<ul style="list-style-type: none"><li>No organisms identified</li></ul>	0

**Question 2**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Explains the difference between extensive and intensive aquaculture systems</li></ul>	2
<ul style="list-style-type: none"><li>Defines either term, but offers no explanation of differences</li></ul>	1

**Question 3**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Draws a detailed diagram to illustrate the life cycle of Salmon</li></ul>	3
<ul style="list-style-type: none"><li>Draws a diagram with some relevant information on the life cycle of Salmon</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1

**Question 4**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Draws a detailed diagram to illustrate the life cycle of an Oyster</li></ul>	3
<ul style="list-style-type: none"><li>Draws a diagram with some relevant information on the life cycle of an Oyster</li></ul>	2
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1





Hunter River High School  
**ASSESSMENT TASK 1 – Marine Studies**

**Aquaculture Farm Designs**

**Question 1**

Criteria	Marks
<ul style="list-style-type: none"><li>• Correctly identifies 3 types of systems and includes relevant information</li></ul>	3
<ul style="list-style-type: none"><li>• Correctly identifies 2 types of systems with some relevant information</li></ul>	2
<ul style="list-style-type: none"><li>• Provides some relevant information</li></ul>	1

**Question 2**

Criteria	Marks
<ul style="list-style-type: none"><li>• Identifies the various systems used in aquaculture</li><li>• Provides relevant diagrams</li><li>• Identifies the advantages and disadvantage of each system</li></ul>	5-6
<ul style="list-style-type: none"><li>• Identifies some of the systems used in aquaculture</li><li>• Provides some relevant diagrams</li><li>• Identifies the advantages and disadvantage of some systems</li></ul>	3-4
<ul style="list-style-type: none"><li>• Demonstrates some understanding of aquaculture systems</li><li>• Provides some relevant information</li></ul>	1-2
<ul style="list-style-type: none"><li>• Provides some relevant information</li></ul>	1

**Question 3**

Criteria	Marks
<ul style="list-style-type: none"><li>• Describe what is the optimal position in which to set up aquaculture systems.</li></ul>	2
<ul style="list-style-type: none"><li>• Provides some relevant information</li></ul>	1



Hunter River High School  
**ASSESSMENT TASK 1 – Marine Studies**

**Question 4**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Identifies the various fish species used in aquaculture and include relevant facts about cultivating each species (includes diagrams).</li><li>Makes a judgment about the usefulness of the species</li></ul>	9-10
<ul style="list-style-type: none"><li>Identifies 4 fish species used in aquaculture and include relevant facts about cultivating each species (includes diagrams).</li><li>Makes a judgment about the usefulness of the species</li></ul>	7-8
<ul style="list-style-type: none"><li>Identifies 2 fish species used in aquaculture and include relevant facts about cultivating each species (includes diagrams).</li><li>Makes a judgment about the usefulness of the species</li></ul>	5-6
<ul style="list-style-type: none"><li>Identifies a fish species used in aquaculture and include relevant facts about cultivating each species (includes diagrams).</li><li>Makes a judgment about the usefulness of the species</li></ul>	3-4
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1-2

**Multimedia Presentation**

<b>Criteria</b>	<b>Marks</b>
<ul style="list-style-type: none"><li>Presents detailed information that outlines the types of aquaponics systems that can be used in aquaculture, including diagrams and descriptions on each type of system in a highly organised and informative manner</li></ul>	9-10
<ul style="list-style-type: none"><li>Presents information that outlines the types of aquaponics systems that can be used in aquaculture, using limited diagrams and descriptions on each type of system</li></ul>	7-8
<ul style="list-style-type: none"><li>Presents information that briefly outlines the types of aquaponics systems that can be used in aquaculture, including limited diagrams</li></ul>	5-6
<ul style="list-style-type: none"><li>Presents information that briefly outlines the types of aquaponics systems that can be used in aquaculture. (No illustrations used)</li></ul>	3-4
<ul style="list-style-type: none"><li>Provides some relevant information</li></ul>	1-2



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Marine Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	Task 2
<b>Assessment Task Name:</b>	Marine Safety
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 2 Week 8
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	2 Periods
<b>Presentation and Submission Guidelines:</b>	Submit Electronically
<b>Marking Process:</b>	

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
1.2	identifies the roles of individuals or groups involved in maritime activities
1.5	demonstrates an awareness of the value of the ocean as a source of historical information
2.2	works effectively within a group
3.1	evaluates information, situations, equipment manuals and written or manual procedures
3.3	generates information from data by calculating, inferring, interpreting and generalising
5.3	interprets and follows instructions, with accuracy
5.4	selects, organises, assembles, dismantles, cleans, and returns equipment

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____

**Task Description:**

Theory Component (Written presentation):

1. Design an experiment to test the effect of water on movement.
2. Research examples of wet suits and explain how they help humans overcome difficulties in water.
3. Experience and draw conclusions about the effects of water on the five senses.

Practical Component: Students must complete and demonstrate competency in the following tasks:

1. Demonstrate correct use of snorkels to breathe under water.
2. Maintain continuous swimming for 200 metres in under 5 minutes. Using any four strokes.
3. Underwater swim 10m no surface.
4. Underwater swim 20m 3 surface breaths only.
5. Stay afloat, unassisted for at least 10 minutes using survival swimming techniques — floating, treading water, bobbing etc
6. Duck dive using snorkel equipment.
7. Clean equipment.

**Feedback:****Medals**

•

**Missions**

•

**Final mark/grade:****Student Reflection:**

Marking criteria- Swimming Assessment				
Criteria	Competency			Total
Swim Component	Not Attempted  (non-serious attempt made)  0	Working towards  (Serious attempt made, but unable to perform task competently)  1	Competent  (able to complete all tasks competently)  2	
<b>Swim:</b> Swim 200 metres continuously under 5 minutes				/2
<b>Underwater swim:</b> Swims 10 metres underwater without breaking water (no fins)				/2
<b>Underwater swim:</b> Swims 20 metres underwater with maximum of 3 surface breaths (no fins)				/2
<b>Tread water:</b> treads water, unassisted for 10 minutes				/2
<b>Use of snorkeling equipment:</b> can demonstrate correct use of a mask, snorkel and fins.				/2
<b>Snorkel swim:</b> using a mask and snorkel, swims head down for 200m				/2
<b>Duck dive:</b> can duck dive using snorkelling equipment to retrieve an object				/2
<b>Snorkel clearance:</b> can clear water from snorkel without removing snorkel from mouth.				/2
<b>Equipment care:</b> Cares for and packs up equipment correctly				/2
<b>Outcome (5.3):</b>				
<b>Total- /18</b>				
<b>TOTAL</b>				<b>/18</b>

<u>GRADE</u>	<u>MARKING CRITERIA</u>	<u>MARK</u>
<b>A</b>	The student demonstrates extensive knowledge of content and understanding of course concepts, and applies highly developed skills and processes in a wide variety of contexts. In addition the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.	17-20
<b>B</b>	The student demonstrates thorough knowledge of content and understanding of course concepts, and applies well-developed skills and processes in a variety of contexts. In addition the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.	13-16
<b>C</b>	The student demonstrates sound knowledge of content and understanding of course concepts, and applies skills and processes in a range of familiar contexts. In addition the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.	9-12
<b>D</b>	The student demonstrates a basic knowledge of content and understanding of course concepts, and applies skills and processes in some familiar contexts. In addition the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.	4-8
<b>E</b>	The student demonstrates an elementary knowledge of content and understanding of course concepts, and applies some skills and processes with guidance. In addition the student demonstrates elementary skills in recounting information and communicating ideas.	1-3



**Mathematics**



## Year 11 Course Structure and Requirements

The course is organised in topics, with the topics divided into subtopics.

	Mathematics Advanced	
	Topics	Subtopics
Year 11 course (120 hours)	Functions	🔗 <b>MA-F1</b> Working with Functions
	Trigonometric Functions	🔗 <b>MA-T1</b> Trigonometry and Measure of Angles <b>MA-T2</b> Trigonometric Functions and Identities
	Calculus	<b>MA-C1</b> Introduction to Differentiation
	Exponential and Logarithmic Functions	🔗 <b>MA-E1</b> Logarithms and Exponentials
	Statistical Analysis	🔗 <b>MA-S1</b> Probability and Discrete Probability Distributions

- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.

## Year 12 Course Structure and Requirements

The course is organised in topics, with the topics divided into subtopics.

	Mathematics Advanced	
	Topics	Subtopics
Year 12 course (120 hours)	Functions	🔗 <b>MA-F2</b> Graphing Techniques
	Trigonometric Functions	<b>MA-T3</b> Trigonometric Functions and Graphs
	Calculus	<b>MA-C2</b> Differential Calculus <b>MA-C3</b> Applications of Differentiation 🔗 <b>MA-C4</b> Integral Calculus
	Financial Mathematics	🔗 <b>MA-M1</b> Modelling Financial Situations
	Statistical Analysis	🔗 <b>MA-S2</b> Descriptive Statistics and Bivariate Data Analysis 🔗 <b>MA-S3</b> Random Variables

- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.





## Table of Objectives and Outcomes – Continuum of Learning

All aspects of Working Mathematically, as described in this syllabus document, are integral to the outcomes of the Mathematics Advanced Stage 6 course, in particular outcomes MA11-8, MA11-9, MA12-9 and MA12-10.

<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop knowledge, skills and understanding about efficient strategies for pattern recognition, generalisation and modelling techniques</li> </ul>	
<p><b>Year 11 outcomes</b></p> <p>A student:</p>	<p><b>Year 12 outcomes</b></p> <p>A student:</p>
<p><b>MA11-1</b></p> <p>uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems</p>	<p><b>MA12-1</b></p> <p>uses detailed algebraic and graphical techniques to critically construct, model and evaluate arguments in a range of familiar and unfamiliar contexts</p>
	<p><b>MA12-2</b></p> <p>models and solves problems and makes informed decisions about financial situations using mathematical reasoning and techniques</p>
	<p><b>MA12-3</b></p> <p>applies calculus techniques to model and solve problems</p>



**Objective**

Students:

- develop the ability to use mathematical concepts and skills and apply complex techniques to the modelling and solution of problems in algebra and functions, measurement, financial mathematics, calculus, data and statistics and probability

**Year 11 outcomes**

A student:

**Year 12 outcomes**

A student:

**MA11-2**

uses the concepts of functions and relations to model, analyse and solve practical problems

**MA12-4**

applies the concepts and techniques of arithmetic and geometric sequences and series in the solution of problems

**MA11-3**

uses the concepts and techniques of trigonometry in the solution of equations and problems involving geometric shapes

**MA12-5**

applies the concepts and techniques of periodic functions in the solution of problems involving trigonometric graphs

**MA11-4**

uses the concepts and techniques of periodic functions in the solutions of trigonometric equations or proof of trigonometric identities

**MA11-5**

interprets the meaning of the derivative, determines the derivative of functions and applies these to solve simple practical problems

**MA12-6**

applies appropriate differentiation methods to solve problems

**MA11-6**

manipulates and solves expressions using the logarithmic and index laws, and uses logarithms and exponential functions to solve practical problems

**MA12-7**

applies the concepts and techniques of indefinite and definite integrals in the solution of problems

**MA11-7**

uses concepts and techniques from probability to present and interpret data and solve problems in a variety of contexts, including the use of probability distributions

**MA12-8**

solves problems using appropriate statistical processes

**Objective**

Students:

- develop the ability to use advanced mathematical models and techniques, aided by appropriate technology, to organise information, investigate, model and solve problems and interpret a variety of practical situations

**Year 11 outcomes**

A student:

**MA11-8**

uses appropriate technology to investigate, organise, model and interpret information in a range of contexts

**Year 12 outcomes**

A student:

**MA12-9**

chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use

**Objective**

Students:

- develop the ability to communicate and interpret mathematics logically and concisely in a variety of forms

**Year 11 outcomes**

A student:

**MA11-9**

provides reasoning to support conclusions which are appropriate to the context

**Year 12 outcomes**

A student:

**MA12-10**

constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context



## Mathematics Advanced

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Question Bank & Topic Test – Working with Functions	Investigation Style Assessment – How are concert spaces designed?	Formal Written Examination
		<b>Date:</b> Term 1 Week 8	<b>Date:</b> Term 2 Week 7	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> MA11-1, 2, 8, 9	<b>Outcomes:</b> MA11-3, 8, 9	<b>Outcomes:</b> MA11- 1, 2, 3, 4, 5, 6, 7, 8, 9
TASK WEIGHTINGS				
Understanding, fluency and communicating	50%	20%	15%	15%
Problem solving, reasoning and justification	50%	15%	15%	20%
<b>Total</b>	<b>100%</b>	<b>35%</b>	<b>30%</b>	<b>35%</b>

### Outcomes

#### A student:

- MA11-1 uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems
- MA11-2 uses the concepts of functions and relations to model, analyse and solve practical problems
- MA11-3 uses the concepts and techniques of trigonometry in the solution of equations and problems involving geometric shapes
- MA11-4 uses the concepts and techniques of periodic functions in the solutions of trigonometric equations or proof of trigonometric identities
- MA11-5 interprets the meaning of the derivative, determines the derivative of functions and applies these to solve simple practical problems
- MA11-6 manipulates and solves expressions using the logarithmic and index laws, and uses logarithms and exponential functions to solve practical problems
- MA11-7 uses concepts and techniques from probability to present and interpret data and solve problems in a variety of contexts, including the use of probability distributions
- MA11-8 uses appropriate technology to investigate, organise, model and interpret information in a range of contexts
- MA11-9 provides reasoning to support conclusions which are appropriate to the context



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Term One	SDD	Algebraic Techniques		Intro to Functions		Linear, Quadratic & Cubic Functions		Further Functions & Relations		Trigonometry	
		Outcomes: MA11-1, MA11-2, MA11-8, MA11-9		Outcomes: MA11-1, MA11-2, MA11-8, MA11-9		Outcomes: MA11-1, MA11-2, MA11-8, MA11-9		Outcomes: MA11-1, MA11-2, MA11-8, MA11-9		Outcomes: MA11-1, MA11-3, MA11-8, MA11-9	
		<ul style="list-style-type: none"> <li>Index laws and surds</li> <li>Solve quadratic equations</li> <li>Manipulate algebraic expressions</li> </ul>		<ul style="list-style-type: none"> <li>Types of functions</li> <li>Domains</li> <li>Define functions</li> </ul>		<ul style="list-style-type: none"> <li>Model, analyse and solve linear, quadratic functions</li> <li>Solve simultaneous linear and or quadratic functions</li> <li>Recognise cubic functions</li> </ul>		<ul style="list-style-type: none"> <li>Polynomials</li> <li>Hyperboles</li> <li>Absolute value</li> <li>Equations of circles</li> </ul>		<ul style="list-style-type: none"> <li>Right-angled trig</li> <li>Sine rule</li> <li>Cosine rule</li> <li>Area of triangle</li> <li>Ambiguous sine rule</li> <li>Trig in 2 and 3 dimensions</li> <li>Pythagoras' theorem</li> <li>Bearings</li> </ul>	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Term Two	Radians		Trigonometric Functions & Identities			Gradients of Tangents		Difference of Quotients		The Derivative Function & its Graph	
	Outcomes: MA11-1, MA11-3, MA11-8, MA11-9		Outcomes: MA11-1, MA11-4, MA11-8, MA11-9			Outcomes: MA11-1, MA11-5, MA11-8, MA11-9		Outcomes: MA11-1, MA11-5, MA11-8, MA11-9		Outcomes: MA11-1, MA11-5, MA11-8, MA11-9	
	<ul style="list-style-type: none"> <li>Unit circle</li> <li>Use radian measures</li> <li>Trig ratios of any magnitude</li> <li>Sketch on extended domains</li> <li>Arc length</li> </ul>		<ul style="list-style-type: none"> <li>Reciprocal trig functions</li> <li>Sketch reciprocal functions</li> <li>Prove and apply Pythagorean identities</li> <li>Prove trig identities</li> <li>Evaluate, simplify and solve trig expressions</li> </ul>			<ul style="list-style-type: none"> <li>Continuous and discontinuous functions</li> <li>Gradient of secant</li> <li>Angle of inclination of a line or tangent</li> </ul>		<ul style="list-style-type: none"> <li>Describe the behaviour of a function and its tangent at a point</li> <li>Interpret and use difference quotient</li> <li>Interpret gradient of a function</li> </ul>		<ul style="list-style-type: none"> <li>Interpret derivative as the gradient of the tangent</li> <li>First principles of polynomials</li> <li>Sketch the derivative function</li> <li>Derivative at a point</li> </ul>	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Three	Calculating with Derivatives		Probability & Venn Diagrams		Discrete Probability Distributions			Intro Logs		Exam Period
	Outcomes: MA11-1, MA11-5, MA11-8, MA11-9		Outcomes: MA11-7, MA11-8, MA11-9		Outcomes: MA11-7 MA11-8, MA11-9			Outcomes: MA11-6, MA11-8, MA11-9		
	<ul style="list-style-type: none"> <li>Differentiate a constant multiple of a function and sum or difference of two functions</li> <li>Understand and use product, quotient and chain rules</li> <li>Calculate and use derivatives</li> <li>Determine velocity and acceleration</li> </ul>		<ul style="list-style-type: none"> <li>Theoretical probability</li> <li>Arrays and tree diagrams of multi-stage</li> <li>Venn diagrams set language and notation</li> <li>Conditional probability</li> <li>Notation</li> </ul>		<ul style="list-style-type: none"> <li>Random variables</li> <li>Discrete random variables</li> <li>Mean, population mean, sample standard deviation, population standard deviation</li> </ul>			<ul style="list-style-type: none"> <li>Define, sketch logs</li> <li>Recognise and use inverse relationships</li> </ul>		

**N.B.** Logarithmic laws and applications, the exponential function and natural logarithms and graphs and applications of exponential and logarithmic functions will be completed in Term 4



## Functions

### MA-F1 Working with Functions

#### Outcomes

**A student:**

- › uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems MA11-1
- › uses the concepts of functions and relations to model, analyse and solve practical problems MA11-2
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9

#### Subtopic Focus

The principal focus of this subtopic is to introduce students to the concept of a function and develop their knowledge of functions and their respective graphs. Function notation is introduced, which is essential for describing the ideas of calculus.

Students develop their use of mathematical language to describe functions, their properties and respective graphs while applying this knowledge to everyday problems and applications. In business and economics, for example revenue depends on the number of items sold, and expressing this relationship as a function allows the investigation of changes in revenue as sales change.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### Content


##### **F1.1: Algebraic techniques**

Students:

- use index laws and surds
- solve quadratic equations using the quadratic formula and by completing the square (ACMMM008)
- manipulate complex algebraic expressions involving algebraic fractions

##### **F1.2: Introduction to functions**

Students:

- define and use a function and a relation as mappings between sets, and as a rule or a formula that defines one variable quantity in terms of another
  - define a relation as any set of ordered pairs  $(x, y)$  of real numbers
  - understand the formal definition of a function as a set of ordered pairs  $(x, y)$  of real numbers such that no two ordered pairs have the same first component (or  $x$ -component)
- use function notation, domain and range, independent and dependent variables (ACMMM023) 
  - understand and use interval notation as a way of representing domain and range, eg  $[4, \infty)$
- understand the concept of the graph of a function (ACMMM024)





- identify types of functions and relations on a given domain, using a variety of methods
  - know what is meant by one-to-one, one-to-many, many-to-one and many-to-many
  - use the vertical line test to identify a function
  - determine if a function is one-to-one (ACMSM094)
- define odd and even functions algebraically and recognise their geometric properties
- define the sum, difference, product and quotient of functions and consider their domains and ranges where possible
- define and use the composite function  $f(g(x))$  of functions  $f(x)$  and  $g(x)$  where appropriate
  - identify the domain and range of a composite function
- recognise that solving the equation  $f(x) = 0$  corresponds to finding the values of  $x$  for which the graph of  $y = f(x)$  cuts the  $x$ -axis (the  $x$ -intercepts)








### F1.3: Linear, quadratic and cubic functions

Students:

- model, analyse and solve problems involving linear functions **AAM**
  - recognise that a direct variation relationship produces a straight-line graph
  - explain the geometrical significance of  $m$  and  $c$  in the equation  $f(x) = mx + c$
  - derive the equation of a straight line passing through a fixed point  $(x_1, y_1)$  and having a given gradient  $m$  using the formula  $y - y_1 = m(x - x_1)$
  - derive the equation of a straight line passing through two points  $(x_1, y_1)$  and  $(x_2, y_2)$  by first calculating its gradient  $m$  using the formula  $m = \frac{y_2 - y_1}{x_2 - x_1}$
  - understand and use the fact that parallel lines have the same gradient and that two lines with gradient  $m_1$  and  $m_2$  respectively are perpendicular if and only if  $m_1 m_2 = -1$
  - find the equations of straight lines, including parallel and perpendicular lines, given sufficient information (ACMMM004)
- model, analyse and solve problems involving quadratic functions **AAM**
  - recognise features of the graph of a quadratic, including its parabolic nature, turning point, axis of symmetry and intercepts (ACMMM007)
  - find the vertex and intercepts of a quadratic graph by either factorising, completing the square or solving the quadratic equation as appropriate
  - understand the role of the discriminant in relation to the position of the graph
  - find the equation of a quadratic given sufficient information (ACMMM009)
- solve practical problems involving a pair of simultaneous linear and/or quadratic functions algebraically and graphically, with or without the aid of technology; including determining and interpreting the break-even point of a simple business problem **AAM**
  - understand that solving  $f(x) = k$  corresponds to finding the values of  $x$  for which the graph  $y = f(x)$  cuts the line  $y = k$
- recognise cubic functions of the form:  $f(x) = kx^3$ ,  $f(x) = k(x - b)^3 + c$  and  $f(x) = k(x - a)(x - b)(x - c)$ , where  $a$ ,  $b$ ,  $c$  and  $k$  are constants, from their equation and/or graph and identify important features of the graph

#### F1.4: Further functions and relations

Students:

- define a real polynomial  $P(x)$  as the expression  $a_nx^n + a_{n-1}x^{n-1} + \dots + a_2x^2 + a_1x + a_0$  where  $n = 0, 1, 2, \dots$  and  $a_0, a_1, a_2, \dots, a_n$  are real numbers
- identify the coefficients and the degree of a polynomial (ACMMM015)
- identify the shape and features of graphs of polynomial functions of any degree in factored form and sketch their graphs  
- recognise that functions of the form  $f(x) = \frac{k}{x}$  represent inverse variation, identify the hyperbolic shape of their graphs and identify their asymptotes **AAM**  
- define the absolute value  $|x|$  of a real number  $x$  as the distance of the number from the origin on a number line without regard to its sign
- use and apply the notation  $|x|$  for the absolute value of the real number  $x$  and the graph of  $y = |x|$  (ACMSM098)
  - recognise the shape and features of the graph of  $y = |ax + b|$  and hence sketch the graph
- solve simple absolute value equations of the form  $|ax + b| = k$  both algebraically and graphically 
- given the graph of  $y = f(x)$ , sketch  $y = -f(x)$  and  $y = f(-x)$  and  $y = -f(-x)$  using reflections in the  $x$  and  $y$ -axes
- recognise features of the graphs of  $x^2 + y^2 = r^2$  and  $(x - a)^2 + (y - b)^2 = r^2$ , including their circular shapes, their centres and their radii (ACMMM020)  
  - derive the equation of a circle, centre the origin, by considering Pythagoras' theorem and recognise that a circle is not a function
  - transform equations of the form  $x^2 + y^2 + ax + by + c = 0$  into the form  $(x - a)^2 + (y - b)^2 = r^2$ , by completing the square
  - sketch circles given their equations and find the equation of a circle from its graph
  - recognise that  $y = \sqrt{r^2 - x^2}$  and  $y = -\sqrt{r^2 - x^2}$  are functions, identify the semicircular shape of their graphs and sketch them





<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Advanced
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Question Bank & Topic Test – Working with Functions
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will complete the topic test during your allocated timetabled lesson.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below.

**Outcomes Assessed:**

<b>Syllabus Code</b>	<b>Syllabus Description</b>
MA11-1	Uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems
MA11-2	Uses the concepts of functions and relations to model, analyse and solve practical problems
MA11-8	Uses appropriate technology to investigate, organise, <u>model</u> and interpret information in a range of contexts
MA11-9	Provides reasoning to support conclusions which are appropriate to the context

**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



### Task Description:

#### Part A-15%

Students will complete a question bank in their own time. It is required that the question bank is submitted to the class teacher on or before the due date.

Solutions to the question bank are required to be handwritten on separate paper.

#### Part B- 20%

Students will sit a formal topic test in the hall. Time allowed is 50 minutes.

The assessment task will assess students' knowledge and understanding of course content from the 'Algebraic Techniques and Introduction to Functions' topics.

**Note:** Due to the cumulative nature of mathematics, knowledge from earlier Stages is essential.

**Permissible calculators: Only those listed on the NESA website allowed –** (Seek clarification from Head Teacher Mathematics if unsure)

### Success Criteria:

To be successful in this topic test: I Can -

- Use index laws and surds
- Solve quadratic equations using the quadratic formula and by completing the square
- Manipulate complex algebraic expressions involving algebraic fractions
- Define and use a function and a relation as mappings between sets, and as rule or a formula that defines one variable quantity in terms of another
- Use function notation, domain and range, independent and dependent variables
- Understand the concept of the graph of a function
- Identify types of functions and relations on a given domain
- Define odd and even functions algebraically and recognise their geometric properties
- Define the sum, difference, product and quotient of functions and consider their domains and ranges where possible
- Define and use the composite functions of functions
- Recognise that solving the equation  $f(x) = 0$  corresponds to finding the values of  $x$  for which the graph of  $y = f(x)$  cuts the  $x$  - axis

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	



## Trigonometric Functions

### MA-T1 Trigonometry and Measure of Angles

#### Outcomes

##### A student:

- › uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems MA11-1
- › uses the concepts and techniques of trigonometry in the solution of equations and problems involving geometric shapes MA11-3
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9

#### Subtopic Focus

The principal focus of this subtopic is to solve problems involving triangles using trigonometry, and to understand and use angular measure expressed in radians and degrees. This has practical and analytical applications in areas including surveying, navigation, meteorology, architecture, construction and electronics.









Students develop techniques to solve problems involving triangles, and then extend these ideas to include the exact ratios for angles, and also to the study of non-right-angled triangles. This introduces the need to define the trigonometric ratios for obtuse angles, which is followed by the establishment of trigonometric ratios of angles of any size. Radians are introduced as another measure in which angles of any size can be found. Radians are important for the study of the calculus of trigonometric functions in Year 12.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### Content

##### T1.1 Trigonometry



Students:

- use the sine, cosine and tangent ratios to solve problems involving right-angled triangles where angles are measured in degrees, or degrees and minutes 
- establish and use the sine rule, cosine rule and the area of a triangle formula for solving problems where angles are measured in degrees, or degrees and minutes **AAM**  
- find angles and sides involving the ambiguous case of the sine rule
  - use technology and/or geometric construction to investigate the ambiguous case of the sine rule when finding an angle, and the condition for it to arise  
- solve problems involving the use of trigonometry in two and three dimensions **AAM** 
  - interpret information about a two or three-dimensional context given in diagrammatic or written form and construct diagrams where required
- solve practical problems involving Pythagoras' theorem and the trigonometry of triangles, which may involve the ambiguous case, including finding and using angles of elevation and depression and the use of true bearings and compass bearings in navigation **AAM**  



## T1.2 Radians

Students:

- understand the unit circle definition of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  and periodicity using degrees (ACMMM029)
  - sketch the trigonometric functions in degrees for  $0^\circ \leq x \leq 360^\circ$
- define and use radian measure and understand its relationship with degree measure (ACMMM032) 
  - convert between the two measures, using the fact that  $360^\circ = 2\pi$  radians
  - recognise and use the exact values of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  in both degrees and radians for integer multiples of  $\frac{\pi}{6}$  and  $\frac{\pi}{4}$  (ACMMM035)
- understand the unit circle definition of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  and periodicity using radians (ACMMM034)
- solve problems involving trigonometric ratios of angles of any magnitude in both degrees and radians
- recognise the graphs of  $y = \sin x$ ,  $y = \cos x$  and  $y = \tan x$  and sketch on extended domains in degrees and radians (ACMMM036)
- derive the formula for arc length,  $l = r\theta$  and for the area of a sector of a circle,  $A = \frac{1}{2}r^2\theta$  
- solve problems involving sector areas, arc lengths and combinations of either areas or lengths

<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Advanced
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Investigation Style Assessment – How are concert spaces designed?
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You are to complete your assessment electronically and upload any electronic solutions via google classroom by the due date and time.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below. Feedback will be provided within two weeks, providing students an opportunity to self-assess against the success criteria before awarding final marks, <u>grades</u> and ranks.



#### Outcomes Assessed:

Syllabus Code	Syllabus Description
MA11-3	Uses the concepts and techniques of trigonometry in the solution of equations and problems involving geometric shapes
MA11-8	Uses appropriate technology to investigate, organise, <u>model</u> and interpret information in a range of contexts
MA11-9	Provides reasoning to support conclusions which are appropriate to the context

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

#### Task Description:

There is to be an outdoor concert held in NSW. You are required to find a vacant piece of land to host it. The land is to be designed to include a stage, which is shaped as a sector in one corner. The chosen piece of land must be in the shape of an irregular quadrilateral, which will encompass seating and standing areas for the crowd. **Note:** the quadrilateral must not be a rectangle or a square.

Task:

1. Find a vacant piece of land in NSW using Google Maps ([www.google.com.au/maps](http://www.google.com.au/maps)), this piece of land must be able to fit an irregular quadrilateral that has a total area between 5000 and 15 000m<sup>2</sup>. You can assume that the piece of land you chose is completely level (flat).
2. Using the measure distance tool on Google Maps, outline the shape of the quadrilateral, clearly determining the distance of each of the 4 edges, one diagonal length and the area of the quadrilateral, ensuring that this area meets the given requirements.  
(Google Maps Support page provides instruction for this tool:  
[support.google.com/maps/answer/1628031?co=GENIE.Platform%3DDesktop&hl=en](http://support.google.com/maps/answer/1628031?co=GENIE.Platform%3DDesktop&hl=en))
3. Create a scale diagram of the chosen quadrilateral using Geogebra ([www.geogebra.org/](http://www.geogebra.org/)), desmos ([www.desmos.com/](http://www.desmos.com/)) or another graphing tool, being sure to mark in the one diagonal length.
4. Confirm the area of your quadrilateral using the trigonometric formula for the area of a triangle. You will need to use your scale diagram that you created to determine the interior angles. You must show all working for this.





5. Determine the location and size of the stage for your concert. The stage must be in one of the corners of your quadrilateral, should take up no more than 15% of the total area and be in the shape of a sector. The area of the stage is to be found using formula for the area of a sector. You will need to show all of the measurements required for this formula on your diagram. You must also show all working to confirm that the stage meets the given requirements.
6. Confirm the area of your stage, by adding the stage to your scale diagram. Verify the area of the stage using the graphing software.
7. Investigate a different corner for your stage. This stage must be of the same area as the one created in Step 5. Find the radius of the stage and justify your answer with appropriate mathematical reasoning.
8. If lights are to be placed along the curved perimeter, determine the number of lights required on the stage of your choice if one light is positioned every 30cm along the perimeter. Compare and contrast the two stages with consideration for the location, shape and lighting requirements.
9. A big screen is to be positioned behind the stage to display the artists during the concert and each audience member must be able to view the screen. The dimensions of the screen are 5m by 3m. On your scale diagram, using a single interval, construct the positioning of the big screen on your stage
10. The audience for the concert is to be arranged into a seating section and a standing section. The seating section will be closest to the stage and extends the sector formed by the stage. The standing section is located behind the seating section and extends another 20 metres beyond the seating section.

Consider an audience member towards the back of the seated section and another towards the back of the standing section. Clearly represent these audience members as points on the scale diagram, so that both points are collinear with a point at the centre of the base of the screen.

If the angle of elevation to the bottom of the screen for each seated audience member is less than  $15^\circ$ , their view is distorted by the audience members in front.

Similarly, if the angle of elevation for the standing audience members is less than  $8^\circ$ , their view is distorted by the audience members in front.

By considering each of the audience members above make informed decisions regarding the size of the seated section and the height at which the bottom of the screen must be above the ground to allow for the above conditions. You may assume that the eye-level of a seated audience member is 1.4 metres and a standing member is 1.7 metres.

Fully justify your answer with supporting mathematics.

**What to submit:**

- A screenshot of Google Maps indicating the area of land being used.
- A scale diagram of your design, using graphing software, which includes all measurements.
- All working and calculations required, either written by hand or typed.
- All reasoning and justification, either written by hand or typed.



### Success Criteria:

To be successful in this topic test: I Can -

- Use the sine ratio to solve right-angled triangle problems with angles measured in degrees or degrees and mins
- Use the cosine ratio to solve right-angled triangle problems with angles measured in degrees or degrees and minutes
- Use the tangent ratio to solve right-angled triangle problems with angles measured in degrees or degrees and minutes
- Use the sine rule to solve non-right-angled triangle problems with angles measured in degrees or degrees and minutes
- Use the cosine rule to solve non-right-angled triangle problems with angles measured in degrees or degrees and minutes
- Use the area rule to solve non-right-angled triangle problems with angles measured in degrees or degrees and minutes
- Find angles involving the ambiguous case of the sine rule
- Find sides involving the ambiguous case of the sine rule
- Solve problems involving the use of trigonometry in three-dimensions
- Solve problems involving the use of trigonometry using angles of elevation and depression
- Solve problems involving the use of trigonometry using true and compass bearings
- Define  $\sin \theta$ , cosine  $\theta$  and tangent  $\theta$  and periodicity using the unit circle in degrees
- Sketch the trigonometric functions in degrees for  $0^\circ \leq x \leq 360^\circ$
- Convert between radian and degree measures using  $360^\circ = 2\pi$  radians
- Recognise and use the exact values of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  in degrees
- Recognise and use the exact values of  $\sin \theta$ ,  $\cos \theta$  and  $\tan \theta$  in radians for integer multiples of  $\frac{\pi}{6}$  and  $\frac{\pi}{4}$
- Define  $\sin \theta$ , cosine  $\theta$  and tangent  $\theta$  and periodicity using the unit circle in radians
- Solve problems involving trigonometric ratios using angles of any magnitude in degrees
- Solve problems involving trigonometric ratios using angles of any magnitude
- Recognise the graphs of  $y = \sin x$ ,  $y = \cos x$  and  $y = \tan x$
- Sketch  $y = \sin x$ ,  $y = \cos x$  in degrees
- Sketch  $y = \sin x$ ,  $y = \cos x$  in radians
- Sketch  $y = \tan x$  in degrees
- Sketch  $y = \tan x$  in radians
- Derive and use the formula for arc length  $l = r\theta$ , where  $\theta$  is in radians
- Derive and use the formula for the area of a sector of a circle  $a = \frac{1}{2}r^2\theta$ , where  $\theta$  is in radians
- Solve problems using a combination of arc length and area of a sector of a circle
- Define the reciprocal trigonometric functions  $y = \operatorname{cosec} x$
- Define the reciprocal trigonometric functions  $y = \sec x$
- Define the reciprocal trigonometric functions  $y = \cot x$
- Sketch the reciprocal trigonometric functions in radians
- Sketch the reciprocal trigonometric functions in degrees
- Prove and apply the Pythagorean identities  $\cos^2 x + \sin^2 x = 1$ ,  
 $1 + \tan^2 x = \sec^2 x$  and  $1 + \cot^2 x = \operatorname{cosec}^2 x$
- Explain the difference between an equation and an identity
- Use  $\tan x = \frac{\sin x}{\cos x}$  provided that  $\cos x \neq 0$





- Prove the trigonometric identities
- Evaluate trigonometric expressions using angles of any magnitude
- Evaluate trigonometric expressions using complementary angle results
- Simplify trigonometric expressions including those that reduce to quadratic expressions
- Solve trigonometric equations including those that reduce to quadratic expressions

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.

**Marking Guidelines:**

Criteria	1	2	3	4	5
<b>1 and 2.</b> Quadrilateral piece of land for concert using Google Maps tools <b>(MA11-8)</b>	Finds vacant piece of land on Google Maps.	Defines and outlines quadrilateral.	Identifies an area that meets the requirements (between 5000 – 15000 square metres).		
<b>3.</b> Scale Diagram using graphing software <b>(MA11-8)</b>	Diagram produced is not to scale and no measurements shown.	Scale diagram is produced showing some measurements required.	Scale diagram is produced showing all measurements required.		
<b>4.</b> Area of quadrilateral <b>(MA11-3)</b>	Makes some attempt towards finding the area of the land using any technique.	Makes some attempt towards finding the area of the land using trigonometric formula.	Uses the trigonometric formula correctly to justify the area of the land, provided by Google Maps.		
<b>5.</b> Stage calculations <b>(MA11-3, MA11-9)</b>	Determines the location of the stage and makes some attempt towards finding the area of the stage.	Meets area requirements without justifying them mathematically.	Meets area requirements (no more than 15% of the land) and justifies them through mathematics.		



Criteria	1	2	3	4	5
<b>6. Stage using graphing software (MA11-8)</b>	Successfully adds the stage onto their scale diagram and displays some measurements.	Successfully adds the stage onto their scale diagram and displays all measurements.	Confirms the area of stage using graphing software.		
<b>7. The second stage (MA11-3)</b>	Makes some attempt towards finding the radius of the second stage.	Correctly determines the radius of the second stage without reasoning OR determines the radius of the second stage with minor errors.	Correctly determines the radius of the second stage with all mathematical reasoning shown through working out.		
<b>8. Lights around arc of stage and comparison of stages (MA11-3, MA11-9)</b>	Makes some attempt towards finding the arc length.	Determines the arc length with minor errors.  Determines the number of lights required with minor errors.	Correctly determines the arc length.  Correctly determines the number of lights required.	Critically analyses and compares the lighting of the two stages to form a recommendation based on interpreting the results.	
<b>9. Represents the big screen (MA11-8)</b>	Appropriately represents the big screen on the stage within the scaled diagram.				
<b>10. Height of the stage (MA11-3, MA11-9)</b>			Provides one correct recommendation and justifies height for the bottom of the stage and the size of the seated section.	Provides a range of suitable heights for the bottom of the stage and justifies them by forming and solving inequalities.	Compares and contrasts more than one suitable recommendation and justifies the choice of one by interpreting the results.



## Trigonometric Functions

### MA-T2 Trigonometric Functions and Identities

#### Outcomes

##### A student:

- › uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems MA11-1
- › uses the concepts and techniques of periodic functions in the solutions of trigonometric equations or proof of trigonometric identities MA11-4
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9



#### Subtopic Focus

The principal focus of this subtopic is to use trigonometric identities and reciprocal relationships to simplify expressions, to prove equivalences and to solve equations.

Students develop their ability to prove identities, simplify expressions and solve trigonometric equations. Trigonometric expressions and equations provide a powerful tool for modelling quantities that vary in a cyclical way such as tides, seasons, demand for resources, and alternating current. The solution of trigonometric equations may require the use of trigonometric identities.

#### Content

##### Students:

- define the reciprocal trigonometric functions,  $y = \operatorname{cosec} x$ ,  $y = \sec x$  and  $y = \cot x$ 
  - $\operatorname{cosec} A = \frac{1}{\sin A}$ ,  $\sin A \neq 0$
  - $\sec A = \frac{1}{\cos A}$ ,  $\cos A \neq 0$
  - $\cot A = \frac{\cos A}{\sin A}$ ,  $\sin A \neq 0$
- sketch the graphs of reciprocal trigonometric functions in both radians and degrees
- prove and apply the Pythagorean identities  $\cos^2 x + \sin^2 x = 1$ ,  $1 + \tan^2 x = \sec^2 x$  and  $1 + \cot^2 x = \operatorname{cosec}^2 x$  (ACMSM046)
  - know the difference between an equation and an identity
- use  $\tan x = \frac{\sin x}{\cos x}$  provided that  $\cos x \neq 0$
- prove trigonometric identities
- evaluate trigonometric expressions using angles of any magnitude and complementary angle results
- simplify trigonometric expressions and solve trigonometric equations, including those that reduce to quadratic equations  



## Calculus

### MA-C1 Introduction to Differentiation

#### Outcomes

##### A student:

- › uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems MA11-1
- › interprets the meaning of the derivative, determines the derivative of functions and applies these to solve simple practical problems MA11-5
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9

#### Subtopic Focus

The principal focus of this subtopic is for students to develop an understanding of the concept of a derivative as a function that defines the rate of change of a given function. This concept is reinforced numerically, by calculating difference quotients, geometrically, as gradients of secants and tangents, and algebraically. The derivatives of power functions are found and used to solve simple problems, including calculating gradients and equations of tangents and normals.

Students develop an understanding of derivatives as representations of rates of change. This process is of fundamental importance in Mathematics and has applications in all quantitative fields of study including physics, chemistry, medicine, engineering, computing, statistics, business, finance and economics.

#### Content

##### C1.1: Gradients of tangents

Students:

- distinguish between continuous and discontinuous functions, identifying key elements which distinguish each type of function
  - sketch graphs of functions that are continuous and compare them with graphs of functions that have discontinuities
  - describe continuity informally, and identify continuous functions from their graphs
- describe the gradient of a secant drawn through two nearby points on the graph of a continuous function as an approximation of the gradient of the tangent to the graph at those points, which improves in accuracy as the distance between the two points decreases
- examine and use the relationship between the angle of inclination of a line or tangent,  $\theta$ , with the positive  $x$ -axis, and the gradient,  $m$ , of that line or tangent, and establish that  $\tan \theta = m$  **AAM**

### C1.2: Difference quotients

Students:

- describe the behaviour of a function and its tangent at a point, using language including increasing, decreasing, constant, stationary, increasing at an increasing rate **AAM** ⚙️ 📄
- interpret and use the difference quotient  $\frac{f(x+h)-f(x)}{h}$  as the average rate of change of  $f(x)$  or the gradient of a chord or secant of the graph  $y = f(x)$  ⚙️ 📄
- interpret the meaning of the gradient of a function in a variety of contexts, for example on distance–time or velocity–time graphs ⚙️ 📄

### C1.3: The derivative function and its graph

Students:

- examine the behaviour of the difference quotient  $\frac{f(x+h)-f(x)}{h}$  as  $h \rightarrow 0$  as an informal introduction to the concept of a limit (ACMMM081)
- interpret the derivative as the gradient of the tangent to the graph of  $y = f(x)$  at a point  $x$  (ACMMM085)
- estimate numerically the value of the derivative at a point, for simple power functions (ACMMM086) ⚙️ 📄
- define the derivative  $f'(x)$  from first principles, as  $\lim_{h \rightarrow 0} \frac{f(x+h)-f(x)}{h}$  and use the notation for the derivative:  $\frac{dy}{dx} = f'(x) = y'$ , where  $y = f(x)$
- use first principles to find the derivative of simple polynomials, up to and including degree 3
- understand the concept of the derivative as a function (ACMMM089)
- sketch the derivative function (or gradient function) for a given graph of a function, without the use of algebraic techniques and in a variety of contexts including motion in a straight line ⚙️ 📄 📄
  - establish that  $f'(x) = 0$  at a stationary point,  $f'(x) > 0$  when the function is increasing and  $f'(x) < 0$  when it is decreasing, to form a framework for sketching the derivative function
  - identify families of curves with the same derivative function (ACMMM121)
  - use technology to plot functions and their gradient functions
- interpret and use the derivative at a point as the instantaneous rate of change of a function at that point **AAM**
  - examine examples of variable rates of change of non-linear functions (ACMMM087)



#### C1.4: Calculating with derivatives

Students:

- use the formula  $\frac{d}{dx}(x^n) = nx^{n-1}$  for all real values of  $n$  ⚙️
- differentiate a constant multiple of a function and the sum or difference of two functions ⚙️ 🖨️
- understand and use the product, quotient and chain rules to differentiate functions of the form  $f(x)g(x)$ ,  $\frac{f(x)}{g(x)}$  and  $f(g(x))$  where  $f(x)$  and  $g(x)$  are functions
  - apply the product rule: If  $h(x) = f(x)g(x)$  then  $h'(x) = f(x)g'(x) + f'(x)g(x)$ , or if  $u$  and  $v$  are both functions of  $x$  then  $\frac{d}{dx}(uv) = u\frac{dv}{dx} + v\frac{du}{dx}$
  - apply the quotient rule: If  $h(x) = \frac{f(x)}{g(x)}$  then  $h'(x) = \frac{g(x)f'(x) - f(x)g'(x)}{g(x)^2}$ , or if  $u$  and  $v$  are both functions of  $x$  then  $\frac{d}{dx}\left(\frac{u}{v}\right) = \frac{v\frac{du}{dx} - u\frac{dv}{dx}}{v^2}$
  - apply the chain rule: If  $h(x) = f(g(x))$  then  $h'(x) = f'(g(x))g'(x)$ , or if  $y$  is a function of  $u$  and  $u$  is a function of  $x$  then  $\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$
- calculate derivatives of power functions to solve problems, including finding an instantaneous rate of change of a function in both real life and abstract situations **AAM**
- use the derivative in a variety of contexts, including to finding the equation of a tangent or normal to a graph of a power function at a given point **AAM**
- determine the velocity of a particle given its displacement from a point as a function of time
- determine the acceleration of a particle given its velocity at a point as a function of time





## MA-E1 Logarithms and Exponentials

### Outcomes

#### A student:

- › manipulates and solves expressions using the logarithmic and index laws, and uses logarithms and exponential functions to solve practical problems MA11-6
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9

### Subtopic Focus

The principal focus of this subtopic is for students to learn about Euler's number  $e$ , become fluent in manipulating logarithms and exponentials and to use their knowledge, skills and understanding to solve problems relating to exponentials and logarithms.


Students develop an understanding of numbering systems, their representations and connections to observable phenomena such as exponential growth and decay. The exponential and logarithmic functions  $f(x) = e^x$  and  $f(x) = \log_e x$  are important non-linear functions in Mathematics, and have many applications in industry, finance and science. They are also fundamental functions in the study of more advanced Mathematics.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

#### E1.1: Introducing logarithms

Students:

- define logarithms as indices:  $y = a^x$  is equivalent to  $x = \log_a y$ , and explain why this definition only makes sense when  $a > 0$ ,  $a \neq 1$
- recognise and sketch the graphs of  $y = ka^x$ ,  $y = ka^{-x}$  where  $k$  is a constant, and  $y = \log_a x$  
- recognise and use the inverse relationship between logarithms and exponentials
  - understand and use the fact that  $\log_a a^x = x$  for all real  $x$ , and  $a^{\log_a x} = x$  for all  $x > 0$



## Statistical Analysis

### MA-S1 Probability and Discrete Probability Distributions

#### Outcomes

**A student:**

- › uses concepts and techniques from probability to present and interpret data and solve problems in a variety of contexts, including the use of probability distributions MA11-7
- › uses appropriate technology to investigate, organise, model and interpret information in a range of contexts MA11-8
- › provides reasoning to support conclusions which are appropriate to the context MA11-9

#### Subtopic Focus

The principal focus of this subtopic is to introduce the concepts of conditional probability and independence and develop an understanding of discrete random variables and their uses in modelling random processes involving chance.

Students develop their skills related to probability, its language and visual representations, and use these skills to solve practical problems. They develop an understanding of probability distributions and associated statistical analysis methods and their use in modelling binomial events. These concepts play an important role in later studies of statistics, particularly in beginning to understand the concept of statistical significance.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.









## Content

### S1.1: Probability and Venn diagrams

Students:

- understand and use the concepts and language associated with theoretical probability, relative frequency and the probability scale 
- solve problems involving simulations or trials of experiments in a variety of contexts **AAM** 
  - identify factors that could complicate the simulation of real-world events (ACMEM153)
  - use relative frequencies obtained from data as point estimates of probabilities (ACMMM055)
- use arrays and tree diagrams to determine the outcomes and probabilities for multi-stage experiments (ACMEM156) **AAM** 
- use Venn diagrams, set language and notation for events, including  $\bar{A}$  (or  $A'$  or  $A^c$ ) for the complement of an event  $A$ ,  $A \cap B$  for 'A and B', the intersection of events  $A$  and  $B$ , and  $A \cup B$  for 'A or B', the union of events  $A$  and  $B$ , and recognise mutually exclusive events (ACMMM050)  
**AAM**
  - use everyday occurrences to illustrate set descriptions and representations of events and set operations (ACMMM051)
- establish and use the rules:  $P(\bar{A}) = 1 - P(A)$  and  $P(A \cup B) = P(A) + P(B) - P(A \cap B)$  (ACMMM054) **AAM** 
- understand the notion of conditional probability and recognise and use language that indicates conditionality (ACMMM056)



- use the notation  $P(A|B)$  and the formula  $P(A|B) = \frac{P(A \cap B)}{P(B)}$ ,  $P(B) \neq 0$  for conditional probability (ACMMM057) **AAM**
- understand the notion of independence of an event  $A$  from an event  $B$ , as defined by  $P(A|B) = P(A)$  (ACMMM058)
- use the multiplication law  $P(A \cap B) = P(A)P(B)$  for independent events  $A$  and  $B$  and recognise the symmetry of independence in simple probability situations (ACMMM059)

### S1.2: Discrete probability distributions

- define and categorise random variables
  - know that a random variable describes some aspect in a population from which samples can be drawn
  - know the difference between a discrete random variable and a continuous random variable
- use discrete random variables and associated probabilities to solve practical problems (ACMMM142) **AAM**
  - use relative frequencies obtained from data to obtain point estimates of probabilities associated with a discrete random variable (ACMMM137)
  - recognise uniform discrete random variables and use them to model random phenomena with equally likely outcomes (ACMMM138)
  - examine simple examples of non-uniform discrete random variables, and recognise that for any random variable,  $X$ , the sum of the probabilities is 1 (ACMMM139)
  - recognise the mean or expected value,  $E(X) = \mu$ , of a discrete random variable  $X$  as a measure of centre, and evaluate it in simple cases (ACMMM140)
  - recognise the variance,  $\text{Var}(X)$ , and standard deviation ( $\sigma$ ) of a discrete random variable as measures of spread, and evaluate them in simple cases (ACMMM141)
  - use  $\text{Var}(X) = E((X - \mu)^2) = E(X^2) - \mu^2$  for a random variable and  $\text{Var}(x) = \sigma^2$  for a dataset
- understand that a sample mean,  $\bar{x}$ , is an estimate of the associated population mean  $\mu$ , and that the sample standard deviation,  $s$ , is an estimate of the associated population standard deviation,  $\sigma$ , and that these estimates get better as the sample size increases and when we have independent observations



<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Advanced
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Formal Written Examination
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	During the preliminary examination period. A timetable will be available two weeks before the examination period begins.
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during the allocated Preliminary Examination period.
<b>Marking Process:</b>	The assessment will be marked by Mr Milton using a format <u>similar to</u> that used in the HSC examination.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MA11-1	Uses algebraic and graphical techniques to solve, and where appropriate, compare alternative solutions to problems
MA11-2	Uses the concepts of functions and relations to model, analyse and solve practical problems
MA11-3	Uses the concepts and techniques of trigonometry in the solution of equations and problems involving geometric shapes
MA11-4	Uses the concepts and techniques of periodic functions in the solutions of trigonometric equations or proof of trigonometric identities
MA11-5	Interprets the meaning of the derivative, determines the derivative of functions and applies these to solve simple practical problems
MA11-6	Manipulates and solves expressions using the logarithmic and index laws, and uses logarithms and exponential functions to solve practical problems
MA11-7	Uses concepts and techniques from probability to present and interpret data and solve problems in a variety of contexts, including the use of probability distributions
MA11-8	Uses appropriate technology to investigate, organise, <u>model</u> and interpret information in a range of contexts
MA11-9	Provides reasoning to support conclusions which are appropriate to the context



#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

#### Task Description:

You will sit a formal Preliminary Examination in the hall. Time allowed is 2 hours with 10 minutes reading time. You will be provided with the HSC reference sheet for use within the examination.

The assessment task will assess students' knowledge and understanding of all topics learnt so far in the preliminary course.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this topic test: I Can -

- Use algebraic and graphical techniques to solve and compare solutions.
- Use the concepts of functions and relations to model, analyse and solve problems.
- Use the concepts and techniques of trigonometry to solve equations.
- Use the concepts and techniques of periodic functions to solve trigonometric equations or prove trig identities.
- Interpret derivatives, determine the derivative of functions and apply these to solve problems.
- Manipulate and solve expressions using logs and index laws
- Use logs and exponential functions
- Use concepts and techniques and probability to present and interpret data including probability distributions

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	





## Trigonometric Functions

### MA-T3 Trigonometric Functions and Graphs

#### Outcomes

##### A student:

- › uses detailed algebraic and graphical techniques to critically construct, model and evaluate arguments in a range of familiar and unfamiliar contexts MA12-1
- › applies the concepts and techniques of periodic functions in the solution of problems involving trigonometric graphs MA12-5
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10






#### Subtopic Focus

The principal focus of this subtopic is to explore the key features of the graphs of trigonometric functions and to understand and use basic transformations to solve trigonometric equations.

Students develop an understanding of the way that graphs of trigonometric functions change when the functions are altered in a systematic way. This is important in understanding how mathematical models of real-world phenomena can be developed.

#### Content

##### Students:

- examine and apply transformations to sketch functions of the form  $y = kf(a(x + b)) + c$ , where  $a, b, c$  and  $k$  are constants, in a variety of contexts, where  $f(x)$  is one of  $\sin x$ ,  $\cos x$  or  $\tan x$ , stating the domain and range when appropriate
  - use technology or otherwise to examine the effect on the graphs of changing the amplitude (where appropriate),  $y = kf(x)$ , the period,  $y = f(ax)$ , the phase,  $y = f(x + b)$ , and the vertical shift,  $y = f(x) + c$  
  - use  $k, a, b, c$  to describe transformational shifts and sketch graphs  
- solve trigonometric equations involving functions of the form  $kf(a(x + b)) + c$ , using technology or otherwise, within a specified domain **AAM** 
- use trigonometric functions of the form  $kf(a(x + b)) + c$  to model and/or solve practical problems involving periodic phenomena **AAM** 





<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 12 Mathematics Advanced
<b>Teacher:</b>	Milton
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Investigation Style Task – Can Mathematics predict periodic phenomena?
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	Term 2, Week 3
<b>Weighting:</b>	20%
<b>Presentation and Submission Guidelines:</b>	You are to complete your assessment on the hard copy provided and upload any electronic solutions via google classroom by the due date and time.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below. Feedback will be provided within two weeks, providing students an opportunity to self-assess against the success criteria before awarding final marks, grades and ranks.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MA12-1	Uses detailed algebraic and graphical techniques to critically construct, model and evaluate arguments in a range of familiar and unfamiliar contexts.
MA12-5	Applies the concepts and techniques of periodic functions in the solution of problems involving trigonometric graphs
MS2-12-9	Chooses and uses appropriate technology effectively in a range of contexts, and applies critical thinking to recognise appropriate times and methods for such use
MS2-12-10	Uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others and justifying a response

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____





### Task Description:

You will complete this task in your own time, no class time will be allocated to work on the assessment.

All questions must be attempted on the assessment sheet provided unless otherwise stated. If otherwise stated, you must upload any relevant screenshots or required information to the appropriate assessment section on Google Classroom.

You are expected to work independently on this task.

You will have the opportunity to submit this task for feedback up to 2 times; however, no submissions for feedback will be accepted three days before the task is due. Feedback will be provided within 24-48 hours.

### Success Criteria:

To be successful in this topic test: I can -

- Develop and graph trigonometric functions which meet the specified properties.
- Develop two models to fit the data set with reference to the features of the data set and justified using appropriate mathematical calculations.
- Accurately use models to make predictions
- Justify choices of models by comparing and contrasting pros and cons with complete justification.
- Interpret models to select accurate times.
- Develop a model with choices explained and supported by appropriate mathematical calculations and limitations and potential improvements identified.
- Accurately use a model to make predictions both graphically and algebraically and explain any differences.
- Explain the impact this model could have for a company and how it may affect a commercial decision.
- Convey a convincing argument to support opinions of the driving question.

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>• Provided on the assessment sheet after each individual question.</li> <li>• Full marks are awarded for correct answers.</li> <li>• Marks will also be awarded for working towards or making significant progress towards calculating the correct answer, if required.</li> </ul>	<p style="text-align: center;">Provided on assessment task sheet</p>
<p>Performance Band Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Band 6</b></p> <ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and skills appropriate to the course.</li> <li>• Demonstrates sophisticated multi-step reasoning and justification.</li> <li>• Integrates and applies ideas from across the course to successfully solve problems.</li> <li>• Demonstrates modelling and problem-solving skills in a wide range of familiar and unfamiliar contexts</li> <li>• Communicates effectively using appropriate mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 5</b></p> <ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and skills appropriate to the course</li> <li>• Demonstrates multi-step logical reasoning and justification</li> <li>• Combines ideas from across the course to solve problems</li> <li>• Demonstrates a range of modelling and problem-solving skills</li> <li>• Communicates appropriately using mathematical language, notation, diagrams and graphs.</li> </ul> <p><b>Band 4</b></p> <ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and skills appropriate to the course</li> <li>• Uses logical reasoning and justifies answers</li> <li>• Uses appropriate approaches to solve problems</li> <li>• Communicates using mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 3</b></p> <ul style="list-style-type: none"> <li>• Demonstrates basic knowledge and skills appropriate to the course</li> <li>• Applies reasoning in familiar contexts</li> <li>• Solve simple problems</li> <li>• Uses mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 2</b></p> <ul style="list-style-type: none"> <li>• Demonstrates limited knowledge and skills appropriate to the course</li> <li>• Solves simple familiar problems with limited accuracy</li> <li>• Uses some mathematical language, notation, diagrams and graphs</li> </ul>	



Feedback:	
Medals	Missions

Final mark/grade:	
Student Reflection:	



## Part One – Sound Waves

The shape of sound waves will determine the properties of the sound produced and how it is perceived by humans.

1. The volume of sound is proportional to the amplitude of the sound wave assuming they have the same frequency.
  - a) You are to construct and label two trigonometric functions and their corresponding graphs to demonstrate a high and low volume of sound.
  - b) You are to state the properties of the trigonometric functions. i.e. The period, frequency and amplitude.
2. The higher the frequency, the higher the pitch of the sound wave.
  - a) You are to construct and label two trigonometric functions and their corresponding graphs to demonstrate a high and low pitch with a consistent amplitude.
  - b) You are to state the properties of the trigonometric functions. For example – the period, frequency and amplitude.

### Marking guidelines

Criteria	Mark	Guidelines
1 a)	2	Construct and label two trigonometric functions and their corresponding graphs.
	1	Construct and label one trigonometric function and its corresponding graph.
1 b)	3	State all properties of trigonometric functions
	2	State most properties of trigonometric functions
	1	State some properties of trigonometric functions
2 a)	2	Construct and label two trigonometric functions and their corresponding graphs.
	1	Construct and label one trigonometric function and its corresponding graph.
2 b)	3	State all properties of trigonometric functions
	2	State most properties of trigonometric functions
	1	State some properties of trigonometric functions

## Part 2 – Ocean Tides

Ocean sea levels vary between a changing high and low tide periodically as a result of the location of the moon and its position relative to the sun.

You are to:

1. Collect tidal data:



Choose a location (Example: Forster, NSW) and for this location, you are to collect 7 days of historical low and high tide data (time and height). Many websites contain tidal data. [Willyweather](http://Willyweather) has a graph and table of historical and future high and low tides.

Date	Time	Elapsed time (hours)	Height (m)

Note: Elapsed time refers to the number of hours since the first recording. For example, 5 hours and 15 minutes would be recorded as 5.25.

2. Model 1: Model the scenario using a single trigonometric function:
  - a) Plot the height verse elapsed time in a suitable graphing software. Suggested software includes Geogebra and Desmos. Upload to Google Classroom.
  - b) Interpret the observable amplitude, vertical shift and period of the data set, to fit a trigonometric model to the data. Provide reasons for your choices.
3. Model 2: Model the scenario using multiple functions, one or more of which must be a trigonometric function:
  - a. By examining data points or trends not captured by the simple model, establish another model using a combination of functions. Justify your model using appropriate mathematical calculations. Refer to Method 2 and/or 3 in Modelling-of-periodic-phenomena.DOCX
4. Predictions: Use your models to predict the high and low tide times and heights on a future date. A suggested table for recording this information is:



Low Tide	Date	Time	Height
Model 1			
Model 2			
Actual			
High Tide	Date	Time	Height
Model 1			
Model 2			
Actual			

5. Choose a model: Select the more accurate model, justifying your choice by comparing and contrasting the pros and cons of each model with reference to the original data, predictions and any observed limitations or potential for improvements.
6. [Fishing monthly](#) contained information about the best times to fish with regards to tides. Using your selected future date and model, find a time(s) or time range(s) corresponding to each of the following scenarios:
  - b. Feeding tends to slow when the tide changes.
  - c. Flathead tend to feed during falling water or the first hour of an incoming tide.
  - d. Bream tend to be present during high tide around mangrove flats.
  - e. 1 hour before and after a low tide is a good time to catch whiting off a beach
  - f. Predator fish like a running tide but avoid the fastest flowing water.
  - g. At what time(s) is the maximum rate of change in the height of the tide?
  - h. What is the rate of change in the height of the tide at this time?

### Marking guidelines

Question	Mark	Guidelines
1	3	All aspects of the table have been recorded.
	2	Most aspects of the table have been recorded.
	1	Some aspects of the table have been recorded.
2 a)	1	Correctly plots and models the height verse elapsed time using digital technology.
2 b)	5	Develops two models to fit the data set with reference to the features of the data set and justified using appropriate mathematical calculations.
	4	Develops two models to fit the data set with reference to the features of the data set.
	3	Develops a basic model with reference to the features of the data set.
	2	Develops a basic model with reference to some of the features of the data set.
	1	Demonstrates skills necessary to develop a basic model.
3	5	Develops two models to fit the data set with reference to the features of the data set and justified using appropriate mathematical calculations.
	4	Develops two models to fit the data set with reference to the features of the data set.
	3	Develops a basic model with reference to the features of the data set. Accurate uses the model to make predictions.
	2	Develops a basic model with reference to some of the features of the data set.
	1	Demonstrates skills necessary to develop a basic model.
4.	2	Students are able to accurately use their model to make predictions.
	1	Students use their model to make predictions but with some conceptual flaws.
5.	4	Justified choice of model by comparing and contrasting pros and cons with complete justification.
	3	Selected the more accurate model by comparing and contrasting pros and cons but with incomplete justification conveyed.
	2	Selected the more accurate model with pros and/or cons of each model listed.
	1	Select the more accurate model.
6.	2	Interpreted the model to select accurate times.
	1	Interpreted the model to select appropriate times but with some flaws in conceptual understating.



### Part 3 – Commercial Trends

1. Select a trend that follows a cyclical cycle. You may like to consider food items that are more commonly eaten during a portion of the year such as stew or ice cream.
2. Collect five years of data using google trends for Australia. [Google Trends](#)
3. Model your data using a trigonometric function or combination of functions.
4. Explain your choice of model and identify any limitations and possible improvements.
5. Repeat steps 2-5 for a country in the northern hemisphere.
6. For each location, use your model to predict the maximum and minimum interest in your topic in 2023.
7. Explain any differences or similarities in the models and corresponding predictions.
8. When in 2023 will the interest in your trend be at 70% of the historical maximum? Justify this both graphically and with appropriate mathematical calculations.
9. Identify a business related to your trend. Explain a potential commercial impact these models could have and how this may affect a commercial decision for the business.

#### Marking guidelines

Question	Mark	Guidelines
1 - 5	4	Developed a model with choices explained and supported by appropriate mathematical calculations and limitations and potential improvements identified.
	3	Develop a model with choices explained and referenced of the data set.
	2	Develop a basic model with reference to some features of the data set.
	1	Identifies a cylindrical trend and collects data.
6 - 8	3	Accurately uses the model to make predictions both graphically and algebraically and explains any differences.
	2	Accurately uses the model to make predictions both graphically and algebraically.
	1	Uses the model to make predictions but with some conceptual flaws.
9	3	Explains the impact the model could have for a company and how it may affect a commercial decision.
	2	Explain the impact the model could have for a company.
	1	Identifies an affected business and potential impact of the trend.







#### Marking guidelines

Question	Mark	Guidelines
4	3	A convincing argument has been provided to support the opinion of the driving question.
	2	Forms a generalised statement from the pros and cons, limitations and potential for improvement.
	1	Provides an exhaustive list of pros and cons of the models.



## Statistical Analysis

### MA-S2 Descriptive Statistics and Bivariate Data Analysis

#### Outcomes

##### A student:

- › solves problems using appropriate statistical processes MA12-8
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10

#### Subtopic Focus

The principal focus of this subtopic is to introduce students to some methods for identifying, analysing and describing associations between pairs of variables (bivariate data).












Students develop the ability to display, interpret and analyse statistical relationships within bivariate data. Statistical results form the basis of many decisions affecting society, and also inform individual decision-making.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### Content

##### S2.1: Data (grouped and ungrouped) and summary statistics

Students:

- classify data relating to a single random variable 
- organise, interpret and display data into appropriate tabular and/or graphical representations including Pareto charts, cumulative frequency distribution tables or graphs, parallel box-plots and two-way tables **AAM**   
  - compare the suitability of different methods of data presentation in real-world contexts (ACMEM048)
- summarise and interpret grouped and ungrouped data through appropriate graphs and summary statistics **AAM** 
- calculate measures of central tendency and spread and investigate their suitability in real-world contexts and use to compare large datasets  
  - investigate real-world examples from the media illustrating appropriate and inappropriate uses or misuses of measures of central tendency and spread (ACMEM056) **AAM**
- identify outliers and investigate and describe the effect of outliers on summary statistics 
  - use different approaches for identifying outliers, for example consideration of the distance from the mean or median, or the use of below  $Q_1 - 1.5 \times IQR$  and above  $Q_3 + 1.5 \times IQR$  as criteria, recognising and justifying when each approach is appropriate
  - investigate and recognise the effect of outliers on the mean, median and standard deviation
- describe, compare and interpret the distributions of graphical displays and/or numerical datasets and report findings in a systematic and concise manner **AAM**   



## S2.2: Bivariate data analysis

Students:

- construct a bivariate scatterplot to identify patterns in the data that suggest the presence of an association (ACMGM052)
- use bivariate scatterplots (constructing them where needed), to describe the patterns, features and associations of bivariate datasets, justifying any conclusions **AAM**
  - describe bivariate datasets in terms of form (linear/non-linear) and in the case of linear, also the direction (positive/negative) and strength of association (strong/moderate/weak)
  - identify the dependent and independent variables within bivariate datasets where appropriate
  - describe and interpret a variety of bivariate datasets involving two numerical variables using real-world examples in the media or those freely available from government or business datasets
- calculate and interpret Pearson's correlation coefficient ( $r$ ) using technology to quantify the strength of a linear association of a sample (ACMGM054)
- model a linear relationship by fitting an appropriate line of best fit to a scatterplot and using it to describe and quantify associations **AAM**
  - fit a line of best fit to the data by eye and using technology (ACMEM141, ACMEM142)
  - fit a least-squares regression line to the data using technology (ACMGM057)
  - interpret the intercept and gradient of the fitted line (ACMGM059)
- use the appropriate line of best fit, both found by eye and by applying the equation of the fitted line, to make predictions by either interpolation or extrapolation **AAM**
  - distinguish between interpolation and extrapolation, recognising the limitations of using the fitted line to make predictions, and interpolate from plotted data to make predictions where appropriate
- solve problems that involve identifying, analysing and describing associations between two numeric variables **AAM**
- construct, interpret and analyse scatterplots for bivariate numerical data in practical contexts **AAM**
  - demonstrate an awareness of issues of privacy and bias, ethics, and responsiveness to diverse groups and cultures when collecting and using data



<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Advanced
<b>Teacher:</b>	Milton
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Topic Test – Descriptive Statistics & Bivariate Data Analysis
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	Term 2, Week 8
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during your allocated timetabled lesson. You may bring an A4, double sided, handwritten summary sheet to the topic test with you. This must be handed in at the completion of the assessment.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MA12 - 8	Solves problems using appropriate statistical processes
MA12 - 9	Chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use
MA12 - 10	Constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____

**Task Description:**

You will sit a formal topic test in the hall. Time allowed is 50 minutes with 5 minutes reading time. The assessment task will assess students' knowledge and understanding of course content from the 'Descriptive and Bivariate Data Analysis' topic.

**Note:** Due to the cumulative nature of mathematics, knowledge from earlier stages is essential.

**Permissible calculators: Only those listed on the NESAs website allowed – approved calculators list for Advanced Mathematics HSC** (Seek clarification from Head Teacher Mathematics if unsure)

**Success Criteria:**

To be successful in this topic test: I Can -

- Classify data variables
- Organise, interpret and display data using tables and graphs
- Summarise and interpret grouped and ungrouped data
- Calculate measures of central tendency and spread
- Identify outliers and describe the effect on statistics
- Describe, compare and interpret the distributions of graphical displays
- Construct a bivariate scatter plot
- Use bivariate scatter plots describe patterns, features and datasets
- Calculate and interpret Pearson's correlation coefficient
- Model a linear relationship using an appropriate line of best fit
- Use the line of best fit to make predictions using interpolation and extrapolation
- Solve problems that involve identifying analysing and describing associations between variables.
- Construct, interpret and analyse scatter plots in practical contexts
- Use relative frequencies and histograms to estimate probabilities
- Use the concepts of a probability density function
- Obtain and analyse a cumulative distribution function
- Identify the numerical and graphical properties of data that is normally distributed
- Calculate probabilities and quantiles associated with a normal distribution
- Calculate the z-score for a data set
- Use z-scores to compare scores from data sets
- Use collected data illustrate the empirical rules for a normal distribution
- Use z-scores to identify extremes of a data set
- Use z-scores to make judgements related to outcomes of a data set

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Performance Band Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Band 6</b></p> <ul style="list-style-type: none"> <li>Demonstrates extensive knowledge and skills appropriate to the course.</li> <li>Demonstrates sophisticated multi-step reasoning and justification.</li> <li>Integrates and applies ideas from across the course to successfully solve problems.</li> <li>Demonstrates modelling and problem-solving skills in a wide range of familiar and unfamiliar contexts</li> <li>Communicates effectively using appropriate mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 5</b></p> <ul style="list-style-type: none"> <li>Demonstrates thorough knowledge and skills appropriate to the course</li> <li>Demonstrates multi-step logical reasoning and justification</li> <li>Combines ideas from across the course to solve problems</li> <li>Demonstrates a range of modelling and problem-solving skills</li> <li>Communicates appropriately using mathematical language, notation, diagrams and graphs.</li> </ul> <p><b>Band 4</b></p> <ul style="list-style-type: none"> <li>Demonstrates sound knowledge and skills appropriate to the course</li> <li>Uses logical reasoning and justifies answers</li> <li>Uses appropriate approaches to solve problems</li> <li>Communicates using mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 3</b></p> <ul style="list-style-type: none"> <li>Demonstrates basic knowledge and skills appropriate to the course</li> <li>Applies reasoning in familiar contexts</li> <li>Solve simple problems</li> <li>Uses mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 2</b></p> <ul style="list-style-type: none"> <li>Demonstrates limited knowledge and skills appropriate to the course</li> <li>Solves simple familiar problems with limited accuracy</li> <li>Uses some mathematical language, notation, diagrams and graphs</li> </ul>	

Feedback:	
Medals	Missions



**Final mark/grade:**

**Student Reflection:**





## Functions

### MA-F2 Graphing Techniques

#### Outcomes

##### A student:

- › uses detailed algebraic and graphical techniques to critically construct, model and evaluate arguments in a range of familiar and unfamiliar contexts MA12-1
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10











#### Subtopic Focus

The principal focus of this subtopic is to become more familiar with key features of graphs of functions, as well as develop an understanding of and use of the effect of basic transformations of these graphs to explain graphical behaviour.

Students develop an understanding of transformations from a graphical and algebraic approach, including the use of technology, and thus develop a deeper understanding of the properties of functions. As graphing software becomes more widely accessible, skills in reading scales and interpreting magnification effects become essential.

#### Content

Students:

- apply transformations to sketch functions of the form  $y = kf(a(x + b)) + c$ , where  $f(x)$  is a polynomial, reciprocal, absolute value, exponential or logarithmic function and  $a, b, c$  and  $k$  are constants
  - examine translations and the graphs of  $y = f(x) + c$  and  $y = f(x + b)$  using technology 
  - examine dilations and the graphs of  $y = kf(x)$  and  $y = f(ax)$  using technology 
  - recognise that the order in which transformations are applied is important in the construction of the resulting function or graph
- use graphical methods with supporting algebraic working to solve a variety of practical problems involving any of the functions within the scope of this syllabus, in both real-life and abstract contexts **AAM**   
  - select and use an appropriate method to graph a given function, including finding intercepts, considering the sign of  $f(x)$  and using symmetry 
  - determine asymptotes and discontinuities where appropriate (vertical and horizontal asymptotes only) 
  - determine the number of solutions of an equation by considering appropriate graphs 
  - solve linear and quadratic inequalities by sketching appropriate graphs  



## Calculus

### MA-C3 Applications of Differentiation

#### Outcomes

##### A student:

- › applies calculus techniques to model and solve problems MA12-3
- › applies appropriate differentiation methods to solve problems MA12-6
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10

#### Subtopic Focus




The principal focus of this subtopic is to introduce the second derivative, its meanings and applications to the behaviour of graphs and functions, such as stationary points and the concavity of the graph.

Students develop an understanding of the interconnectedness of topics from across the syllabus and the use of calculus to help solve problems such as optimisation, from each topic. The solution of optimisation problems is an important area of applied Mathematics and involves the location of the maximum or minimum values of a function.

#### Content

##### C3.1: The first and second derivatives







Students:

- use the first derivative to investigate the shape of the graph of a function
  - deduce from the sign of the first derivative whether a function is increasing, decreasing or stationary at a given point or in a given interval
  - use the first derivative to find intervals over which a function is increasing or decreasing, and where its stationary points are located
  - use the first derivative to investigate a stationary point of a function over a given domain, classifying it as a local maximum, local minimum or neither
  - determine the greatest or least value of a function over a given domain (if the domain is not given, the natural domain of the function is assumed) and distinguish between local and global minima and maxima
- define and interpret the concept of the second derivative as the rate of change of the first derivative function in a variety of contexts, for example recognise acceleration as the second derivative of displacement with respect to time (ACMMM108, ACMMM109) **AAM**   
  - understand the concepts of concavity and points of inflection and their relationship with the second derivative (ACMMM110)
  - use the second derivative to determine concavity and the nature of stationary points
  - understand that when the second derivative is equal to 0 this does not necessarily represent a point of inflection



### C3.2: Applications of the derivative

Students:

- use any of the functions covered in the scope of this syllabus and their derivatives to solve practical and abstract problems **AAM**
- use calculus to determine and verify the nature of stationary points, find local and global maxima and minima and points of inflection (horizontal or otherwise), examine behaviour of a function as  $x \rightarrow \infty$  and  $x \rightarrow -\infty$  and hence sketch the graph of the function (ACMMM095)   
- solve optimisation problems for any of the functions covered in the scope of this syllabus, in a wide variety of contexts including displacement, velocity, acceleration, area, volume, business, finance and growth and decay **AAM**   
  - define variables and construct functions to represent the relationships between variables related to contexts involving optimisation, sketching diagrams or completing diagrams if necessary
  - use calculus to establish the location of local and global maxima and minima, including checking endpoints of an interval if required
  - evaluate solutions and their reasonableness given the constraints of the domain and formulate appropriate conclusions to optimisation problems

## Calculus

### MA-C4 Integral Calculus

#### Outcomes

**A student:**

- › applies calculus techniques to model and solve problems MA12-3
- › applies the concepts and techniques of indefinite and definite integrals in the solution of problems MA12-7
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10

#### Subtopic Focus

The principal focus of this subtopic is to introduce the anti-derivative or indefinite integral and to develop and apply methods for finding the area under a curve, including the Trapezoidal rule and the definite integral, for a range of functions in a variety of contexts.

Students develop their understanding of how integral calculus relates to area under curves and a further understanding of the interconnectedness of topics from across the syllabus. Geometrical representation assists in understanding the development of this topic, but careful sequencing of the ideas is required so that students can see that integration has many applications, not only in mathematics but also in other fields such as the sciences and engineering.



## Content

### C4.1: The anti-derivative






Students:









- define anti-differentiation as the reverse of differentiation and use the notation  $\int f(x) dx$  for anti-derivatives or indefinite integrals (ACMMM114, ACMMM115)
- recognise that any two anti-derivatives of  $f(x)$  differ by a constant
- establish and use the formula  $\int x^n dx = \frac{1}{n+1}x^{n+1} + c$ , for  $n \neq -1$  (ACMMM116) ✱✱
- establish and use the formula  $\int f'(x)[f(x)]^n dx = \frac{1}{n+1}[f(x)]^{n+1} + c$  where  $n \neq -1$  (the reverse chain rule) ✱✱
- establish and use the formulae for the anti-derivatives of  $\sin(ax + b)$ ,  $\cos(ax + b)$  and  $\sec^2(ax + b)$
- establish and use the formulae  $\int e^x dx = e^x + c$  and  $\int e^{ax+b} dx = \frac{1}{a}e^{ax+b} + c$
- establish and use the formulae  $\int \frac{1}{x} dx = \ln|x| + c$  and  $\int \frac{f'(x)}{f(x)} dx = \ln|f(x)| + c$  for  $x \neq 0, f(x) \neq 0$ , respectively
- establish and use the formulae  $\int a^x dx = \frac{a^x}{\ln a} + c$
- recognise and use linearity of anti-differentiation (ACMMM119)
  - examine families of anti-derivatives of a given function graphically
- determine indefinite integrals of the form  $\int f(ax + b) dx$  (ACMMM120)
- determine  $f(x)$ , given  $f'(x)$  and an initial condition  $f(a) = b$  in a range of practical and abstract applications including coordinate geometry, business and science



## C4.2: Areas and the definite integral

Students:

- know that ‘the area under a curve’ refers to the area between a function and the  $x$ -axis, bounded by two values of the independent variable and interpret the area under a curve in a variety of contexts **AAM** 
- determine the approximate area under a curve using a variety of shapes including squares, rectangles (inner and outer rectangles), triangles or trapezia  
  - consider functions which cannot be integrated in the scope of this syllabus, for example  $f(x) = \ln x$ , and explore the effect of increasing the number of shapes used
- use the notation of the definite integral  $\int_a^b f(x) dx$  for the area under the curve  $y = f(x)$  from  $x = a$  to  $x = b$  if  $f(x) \geq 0$
- use the Trapezoidal rule to estimate areas under curves **AAM** 
  - use geometric arguments (rather than substitution into a given formula) to approximate a definite integral of the form  $\int_a^b f(x) dx$ , where  $f(x) \geq 0$ , on the interval  $a \leq x \leq b$ , by dividing the area into a given number of trapezia with equal widths 
  - demonstrate understanding of the formula:  

$$\int_a^b f(x) dx \approx \frac{b-a}{2n} [f(a) + f(b) + 2\{f(x_1) + \dots + f(x_{n-1})\}]$$
 where  $a = x_0$  and  $b = x_n$ , and the values of  $x_0, x_1, x_2, \dots, x_n$  are found by dividing the interval  $a \leq x \leq b$  into  $n$  equal sub-intervals 
- use geometric ideas to find the definite integral  $\int_a^b f(x) dx$  where  $f(x)$  is positive throughout an interval  $a \leq x \leq b$  and the shape of  $f(x)$  allows such calculations, for example when  $f(x)$  is a straight line in the interval or  $f(x)$  is a semicircle in the interval **AAM** 
- understand the relationship of position to signed areas, namely that the signed area above the horizontal axis is positive and the signed area below the horizontal axis is negative
- using technology or otherwise, investigate the link between the anti-derivative and the area under a curve 
  - interpret  $\int_a^b f(x) dx$  as a sum of signed areas (ACMMM127) 
  - understand the concept of the signed area function  $F(x) = \int_a^x f(t) dt$  (ACMMM129)
- use the formula  $\int_a^b f(x) dx = F(b) - F(a)$ , where  $F(x)$  is the anti-derivative of  $f(x)$ , to calculate definite integrals (ACMMM131) **AAM** 
  - understand and use the Fundamental Theorem of Calculus,  $F'(x) = \frac{d}{dx} [\int_a^x f(t) dt] = f(x)$  and illustrate its proof geometrically (ACMMM130)
  - use symmetry properties of even and odd functions to simplify calculations of area
  - recognise and use the additivity and linearity of definite integrals (ACMMM128)
  - calculate total change by integrating instantaneous rate of change
- calculate the area under a curve (ACMMM132) 
- calculate areas between curves determined by any functions within the scope of this syllabus (ACMMM134) **AAM** 
- integrate functions and find indefinite or definite integrals and apply this technique to solving practical problems **AAM** 



## Statistical Analysis

### MA-S3 Random Variables

#### Outcomes

##### A student:

- › solves problems using appropriate statistical processes MA12-8
- › chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use MA12-9
- › constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context MA12-10

#### Subtopic Focus

The principal focus of this subtopic is to introduce students to continuous random variables, the normal distribution and its use in a variety of contexts.

Students develop understanding of the probability density function, how integration or the area under the function determines probabilities to solve problems involving random variables, and an understanding of the normal distribution, its properties and uses. Students make connections between calculus skills developed earlier in the course and their applications in Statistics, and lay the foundations for future study in this area.


#### Content

##### S3.1: Continuous random variables

Students:

- use relative frequencies and histograms obtained from data to estimate probabilities associated with a continuous random variable (ACMMM164)
- understand and use the concepts of a probability density function of a continuous random variable

##### AAM

- know the two properties of a probability density function:  $f(x) \geq 0$  for all real  $x$  and  $\int_{-\infty}^{\infty} f(x)dx = 1$
- define the probability as the area under the graph of the probability density function using the notation  $P(X \leq r) = \int_a^r f(x)dx$ , where  $f(x)$  is the probability density function defined on  $[a, b]$
- examine simple types of continuous random variables and use them in appropriate contexts
-  explore properties of a continuous random variable that is uniformly distributed
- find the mode from a given probability density function
- obtain and analyse a cumulative distribution function with respect to a given probability density function
  - understand the meaning of a cumulative distribution function with respect to a given probability density function
  - use a cumulative distribution function to calculate the median and other percentiles



### S3.2: The normal distribution

Students:

- identify the numerical and graphical properties of data that is normally distributed
- calculate probabilities and quantiles associated with a given normal distribution using technology and otherwise, and use these to solve practical problems (ACMMM170) **AAM**
  - identify contexts that are suitable for modelling by normal random variables, eg the height of a group of students (ACMMM168)
  - recognise features of the graph of the probability density function of the normal distribution with mean  $\mu$  and standard deviation  $\sigma$ , and the use of the standard normal distribution (ACMMM169)
  - visually represent probabilities by shading areas under the normal curve, eg identifying the value above which the top 10% of data lies
- understand and calculate the z-score (standardised score) corresponding to a particular value in a dataset **AAM**
  - use the formula  $z = \frac{x-\mu}{\sigma}$ , where  $\mu$  is the mean and  $\sigma$  is the standard deviation
  - describe the z-score as the number of standard deviations a value lies above or below the mean
- use z-scores to compare scores from different datasets, for example comparing students' subject examination scores **AAM**
- use collected data to illustrate the empirical rules for normally distributed random variables
  - apply the empirical rule to a variety of problems
  - sketch the graphs of  $f(x) = e^{-x^2}$  and the probability density function for the normal distribution  $f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$  using technology
  - verify, using the Trapezoidal rule, the results concerning the areas under the normal curve
- use z-scores to identify probabilities of events less or more extreme than a given event **AAM**
  - use statistical tables to determine probabilities
  - use technology to determine probabilities
- use z-scores to make judgements related to outcomes of a given event or sets of data **AAM**



<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 12 Mathematics Advanced
<b>Teacher:</b>	Milton
<b>Assessment Task Number:</b>	4
<b>Assessment Task Name:</b>	Trial HSC Examination
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	During the two-week trial examination period. A timetable will be available two weeks before the examination period begins.
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during the allocated Trial HSC Examination period.
<b>Marking Process:</b>	The assessment will be marked by Mr Milton using a format similar to that used in the HSC examination.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MA-12-1	Uses detailed algebraic and graphical techniques to critically construct, model and evaluate arguments in a range of familiar and unfamiliar contexts.
MA-12-2	Models and solve problems and make informed decisions about financial situations using mathematical reasoning and techniques.
MA-12-3	Applies calculus techniques to model and solve problems.
MA-12-4	Applies the concepts and techniques of arithmetic and geometric sequences and series in the solution of problems.
MA-12-5	Applies the concepts and techniques of periodic functions in the solution of problems involving trigonometric graphs.
MA-12-6	Applies appropriate differentiation methods to solve problems.
MA-12-7	Applies the concepts and techniques of indefinite and definite integrals in the solution of problems.
MA-12-8	Solves problems using appropriate statistical processes.
MA-12-9	Chooses and uses appropriate technology effectively in a range of contexts, models and applies critical thinking to recognise appropriate times for such use.
MA-12-10	Constructs arguments to prove and justify results and provides reasoning to support conclusions which are appropriate to the context

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____





**Task Description:**

You will sit a formal Trial HSC Examination in the hall. Time allowed is 3 hours with 10 minutes reading time. You will be provided with the HSC reference sheet for use within the examination. The assessment task will assess students' knowledge and understanding of all topics learnt so far. Up to 30% of preliminary content can be assessed in the Trial HSC examination so it is essential that you are revising any content from the preliminary course.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC** (Seek clarification from Head Teacher Mathematics if unsure)

**Success Criteria:**

To be successful in this examination: I can -

- Use detailed algebraic and graphical to critically evaluate and construct arguments in a range of familiar and unfamiliar contexts.
- Analyse representations of data in order to make inferences, predications and draw conclusions.
- Interpret the results of measurements and calculations and make judgements about their reasonableness, including the degree of accuracy and the conversion of units.
- Analyse two-dimensional and three-dimensional models to solve practical problems.
- Make informed decisions about financial situations, including annuities and loan repayments.
- Solve problems by representing the relationships between changing quantities in algebraic and graphical forms.
- Solve problems requiring statistical processes, including the use of the normal distribution and the correlation of bivariate data.
- Solve problems using networks to model decision-making in practical problems.
- Choose and use appropriate technology effectively in a range of contexts and apply critical thinking to recognise appropriate times and methods for such use.
- Use mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others and justify a response.

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts.

<b>Marking Guidelines:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>• Full marks are awarded for correct answers</li> <li>• Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Performance Band Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Band 6</b></p> <ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and skills appropriate to the course.</li> <li>• Applies appropriate mathematical concepts, skills and techniques consistently and accurately in a wide range of familiar and unfamiliar contexts</li> <li>• Selects and uses a wide variety of problem-solving strategies to solve mathematical problems</li> </ul>	



<ul style="list-style-type: none"> <li>• Demonstrates mathematical reasoning and justification, and interprets and analyses mathematical models</li> <li>• Communicates effectively using appropriate mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 5</b></p> <ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and skills appropriate to the course</li> <li>• Applies appropriate mathematical concepts, skills and techniques accurately in a range of familiar and unfamiliar contexts</li> <li>• Selects and uses a variety of problem-solving strategies to solve mathematical problems</li> <li>• Demonstrates mathematical reasoning and interprets mathematical models</li> <li>• Communicates using appropriate mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 4</b></p> <ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and skills appropriate to the course</li> <li>• Uses mathematical concepts, skills and techniques in familiar and some unfamiliar contexts</li> <li>• Uses problem-solving strategies to solve mathematical problems</li> <li>• Uses some mathematical reasoning and mathematical models</li> <li>• Communicates using some appropriate mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 3</b></p> <ul style="list-style-type: none"> <li>• Demonstrates basic knowledge and skills appropriate to the course</li> <li>• Uses mathematical concepts, skills and techniques in familiar contexts</li> <li>• Uses some mathematical reasoning</li> <li>• Uses some mathematical language, notation, diagrams and graphs</li> </ul> <p><b>Band 2</b></p> <ul style="list-style-type: none"> <li>• Demonstrates limited knowledge and skills appropriate to the course</li> <li>• Uses basic mathematical concepts, skills and techniques to solve problems with limited accuracy</li> </ul>	
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<b>Feedback:</b>	
<b>Medals</b>	<b>Missions</b>

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	



# **Mathematics**

## **Extension 1**



## Year 11 Course Structure and Requirements

The course is organised in topics, with the topics divided into subtopics.

	<b>Mathematics Extension</b>	
	<b>Topics</b>	<b>Subtopics</b>
<b>Year 11 course (60 hours)</b>	Functions	<b>ME-F1</b> Further Work with Functions <b>ME-F2</b> Polynomials
	Trigonometric Functions	<b>ME-T1</b> Inverse Trigonometric Functions <b>ME-T2</b> Further Trigonometric Identities
	Calculus	<b>ME-C1</b> Rates of Change
	Combinatorics	<b>ME-A1</b> Working with Combinatorics

For the Year 11 course:

- The Mathematics Advanced Year 11 course should be taught prior to or concurrently with this course.
- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.

## Year 12 Course Structure and Requirements

The course is organised in topics, with the topics divided into subtopics.

	<b>Mathematics Extension 1</b>	
	<b>Topics</b>	<b>Subtopics</b>
<b>Year 12 course (60 hours)</b>	Proof	<b>ME-P1</b> Proof by Mathematical Induction
	Vectors	<b>ME-V1</b> Introduction to Vectors
	Trigonometric Functions	<b>ME-T3</b> Trigonometric Equations
	Calculus	<b>ME-C2</b> Further Calculus Skills <b>ME-C3</b> Applications of Calculus
	Statistical Analysis	<b>ME-S1</b> The Binomial Distribution

For the Year 12 course:

- The Mathematics Advanced Year 12 course should be taught prior to or concurrently with this course.
- The Mathematics Advanced Year 11 course is a prerequisite.
- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology.



## Outcomes

### Table of Objectives and Outcomes – Continuum of Learning

All aspects of Working Mathematically, as described in this syllabus, are integral to the outcomes of the Mathematics Extension 1 Stage 6 course, in particular outcomes ME11-6, ME11-7, ME12-6 and ME12-7.

<b>Objective</b> Students: <ul style="list-style-type: none"> <li>develop efficient strategies to solve problems using pattern recognition, generalisation, proof and modelling techniques</li> </ul>	
<b>Year 11 Mathematics Extension 1 outcomes</b> A student:	<b>Year 12 Mathematics Extension 1 outcomes</b> A student:
<b>ME11-1</b> uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses	<b>ME12-1</b> applies techniques involving proof or calculus to model and solve problems

<b>Objective</b> Students: <ul style="list-style-type: none"> <li>develop the ability to use concepts and skills and apply complex techniques to the solution of problems and modelling in the areas of trigonometry, functions, calculus, proof, vectors and statistical analysis</li> </ul>	
<b>Year 11 Mathematics Extension 1 outcomes</b> A student:	<b>Year 12 Mathematics Extension 1 outcomes</b> A student:
<b>ME11-2</b> manipulates algebraic expressions and graphical functions to solve problems	<b>ME12-2</b> applies concepts and techniques involving vectors and projectiles to solve problems
<b>ME11-3</b> applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems	<b>ME12-3</b> applies advanced concepts and techniques in simplifying expressions involving compound angles and solving trigonometric equations
<b>ME11-4</b> applies understanding of the concept of a derivative in the solution of problems, including rates of change, exponential growth and decay and related rates of change	<b>ME12-4</b> uses calculus in the solution of applied problems, including differential equations and volumes of solids of revolution
<b>ME11-5</b> uses concepts of permutations and combinations to solve problems involving counting or ordering	<b>ME12-5</b> applies appropriate statistical processes to present, analyse and interpret data



<b>Objective</b> Students: <ul style="list-style-type: none"><li>• use technology effectively and apply critical thinking to recognise appropriate times for such use</li></ul>	
<b>Year 11 Mathematics Extension 1 outcomes</b> A student:	<b>Year 12 Mathematics Extension 1 outcomes</b> A student:
<b>ME11-6</b> uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts	<b>ME12-6</b> chooses and uses appropriate technology to solve problems in a range of contexts

<b>Objective</b> Students: <ul style="list-style-type: none"><li>• develop the ability to interpret, justify and communicate mathematics in a variety of forms</li></ul>	
<b>Year 11 Mathematics Extension 1 outcomes</b> A student:	<b>Year 12 Mathematics Extension 1 outcomes</b> A student:
<b>ME11-7</b> communicates making comprehensive use of mathematical language, notation, diagrams and graphs	<b>ME12-7</b> evaluates and justifies conclusions, communicating a position clearly in appropriate mathematical forms



## Mathematics Extension 1

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Question Bank & Topic Test – Further Work with Functions & Polynomials	Investigation Style Assessment – Inverse Trigonometric Functions Screencast	Formal Written Examination
		<b>Date:</b> Term 2 Week 4	<b>Date:</b> Term 2 Week 10	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> MA11-1, 2, 6, 7	<b>Outcomes:</b> MA11-1, 3, 6, 7	<b>Outcomes:</b> MA11- 1, 2, 3, 4, 5, 6, 7
<b>TASK WEIGHTINGS</b>				
Understanding, fluency and communicating	50%	20%	15%	15%
Problem solving, reasoning and justification	50%	15%	15%	20%
<b>Total</b>	<b>100%</b>	<b>35%</b>	<b>30%</b>	<b>35%</b>

### Outcomes

#### **A student:**

- ME11-1 uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses
- ME11-2 manipulates algebraic expressions and graphical functions to solve problems
- ME11-3 applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems
- ME11-4 applies understanding of the concept of a derivative in the solution of problems, including rates of change, exponential growth and decay and related rates of change
- ME11-5 uses concepts of permutations and combinations to solve problems involving counting or ordering
- ME11-6 uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts
- ME11-7 communicates making comprehensive use of mathematical language, notation, diagrams and graphs



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	
Term One	SDD	Inequalities		Graphical Relationships		Inverse Functions		Parametric Form of a Function or Relation		Remainder and Factor Theorems		
		Outcomes: ME11-1, ME11-2, ME11-6, ME11-7									Outcomes: ME11-1, ME11-2, ME11-6, ME11-7	
		<ul style="list-style-type: none"> <li>Solve quadratic inequalities</li> <li>Solve a range of inequalities</li> <li>Solve absolute value inequalities</li> </ul>		<ul style="list-style-type: none"> <li>Examine and sketch relationships between a range of graphs</li> </ul>		<ul style="list-style-type: none"> <li>Define inverse function</li> <li>Examine and use the reflective property</li> <li>Write the rules for inverse relation</li> <li>Use notation</li> <li>Identify relationships between domains and ranges</li> <li>Restrict the domain</li> </ul>		<ul style="list-style-type: none"> <li>Understand concept of parametric representation and examine lines, parabolas and circles expressed in parametric form</li> </ul>		<ul style="list-style-type: none"> <li>Define a polynomial</li> <li>Use division of polynomials</li> <li>Prove and apply factor theorem and remainder theorem for polynomials</li> <li>Solve simple polynomial equations</li> </ul>		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
Term Two	Remainder and Factor Theorems	Sum and Products of Roots or Polynomials			Inverse Trig Functions		Further Trig Identities			Consolidation	
		Outcomes: ME11-1, ME11-2, ME11-6, ME11-7			Outcomes: ME11-1, ME11-3, ME11-6, ME11-7						
		<ul style="list-style-type: none"> <li>Relationship between roots and coefficients of equations</li> <li>Multiplicity of a root of a polynomial</li> <li>Graph a variety of polynomials</li> </ul>			<ul style="list-style-type: none"> <li>Define and use inverse trig functions</li> <li>Sketch inverse trig functions</li> <li>Use inverse trig relationships</li> <li>Prove and use inverse trig properties</li> </ul>		<ul style="list-style-type: none"> <li>Derive and use the sum and difference expansions for trig functions</li> <li>Derive and use double angle formula</li> <li>The <math>t - formula</math></li> <li>Derive and use the formulae for trig products as sums and differences</li> </ul>				

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Three	Permutations & Combinations		The Binomial Expansion and Pascal's Triangle			Rates of Change with Respect to Time		Exponential Growth and Decay		Exam Period
	Outcomes: ME11-5, ME11-6, ME11-7		Outcomes: ME11-5, ME11-6, ME11-7			Outcomes: ME11-1, ME11-4, ME11-6, ME11-7		Outcomes: ME11-1, ME11-4, ME11-6, ME11-7		
	<ul style="list-style-type: none"> <li>Fundamental counting principal</li> <li>Factorial notation</li> <li>Pigeonhole principal</li> <li>Permutations</li> <li>Combinatorics</li> </ul>		<ul style="list-style-type: none"> <li>Expand <math>(x + y)^n</math></li> <li>Pascal's triangle</li> </ul>			<ul style="list-style-type: none"> <li>Rate of change as a derivative</li> <li>Interpret derivative for amount of physical quantity present at time</li> <li>Displacement</li> <li>Velocity</li> </ul>		<ul style="list-style-type: none"> <li>Exponentials as growth or decay</li> <li>Modified exponentials</li> <li>Solve problems involving situations that can be modelled using exponential model</li> </ul>		

N.B. Exponential Growth and Decay and Related Rates of Change will be completed in Term 4.





## Functions

### ME-F1 Further Work with Functions

#### Outcomes

##### A student:

- › uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses ME11-1
- › manipulates algebraic expressions and graphical functions to solve problems ME11-2
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7

#### Subtopic Focus

The principal focus of this subtopic is to further explore functions in a variety of contexts including: reciprocal and inverse functions, manipulating graphs of functions, and parametric representation of functions. The study of inequalities is an application of functions and enables students to express domains and ranges as inequalities.

Students develop proficiency in methods to identify solutions to equations both algebraically and graphically. The study of inverse functions is important in higher Mathematics and the calculus of these is studied later in the course. The study of parameters sets foundations for later work on projectiles.

#### Content

##### F1.1: Graphical relationships

Students:

- examine the relationship between the graph of  $y = f(x)$  and the graph of  $y = \frac{1}{f(x)}$  and hence sketch the graphs (ACMSM099) ✨ 🖨
- examine the relationship between the graph of  $y = f(x)$  and the graphs of  $y^2 = f(x)$  and  $y = \sqrt{f(x)}$  and hence sketch the graphs ✨ 🖨
- examine the relationship between the graph of  $y = f(x)$  and the graphs of  $y = |f(x)|$  and  $y = f(|x|)$  and hence sketch the graphs (ACMSM099) ✨ 🖨
- examine the relationship between the graphs of  $y = f(x)$  and  $y = g(x)$  and the graphs of  $y = f(x) + g(x)$  and  $y = f(x)g(x)$  and hence sketch the graphs ✨ 🖨
- apply knowledge of graphical relationships to solve problems in practical and abstract contexts **AAM** ✨ 🖨

##### F1.2: Inequalities






Students:

- solve quadratic inequalities using both algebraic and graphical techniques ✨
- solve inequalities involving rational expressions, including those with the unknown in the denominator ✨
- solve absolute value inequalities of the form  $|ax + b| \geq k$ ,  $|ax + b| \leq k$ ,  $|ax + b| < k$  and  $|ax + b| > k$





### F1.3: Inverse functions

Students:

- define the inverse relation of a function  $y = f(x)$  to be the relation obtained by reversing all the ordered pairs of the function
- examine and use the reflection property of the graph of a function and the graph of its inverse (ACMSM096)  
  - understand why the graph of the inverse relation is obtained by reflecting the graph of the function in the line  $y = x$
  - using the fact that this reflection exchanges horizontal and vertical lines, recognise that the horizontal line test can be used to determine whether the inverse relation of a function is again a function
- write the rule or rules for the inverse relation by exchanging  $x$  and  $y$  in the function rules, including any restrictions, and solve for  $y$ , if possible
- when the inverse relation is a function, use the notation  $f^{-1}(x)$  and identify the relationships between the domains and ranges of  $f(x)$  and  $f^{-1}(x)$
- when the inverse relation is not a function, restrict the domain to obtain new functions that are one-to-one, and compare the effectiveness of different restrictions 
- solve problems based on the relationship between a function and its inverse function using algebraic or graphical techniques **AAM**  

### F1.4: Parametric form of a function or relation

Students:

- understand the concept of parametric representation and examine lines, parabolas and circles expressed in parametric form  
  - understand that linear and quadratic functions, and circles can be expressed in either parametric form or Cartesian form
  - convert linear and quadratic functions, and circles from parametric form to Cartesian form and vice versa
  - sketch linear and quadratic functions, and circles expressed in parametric form

## Functions

### ME-F2 Polynomials

#### Outcomes

**A student:**

- › uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses ME11-1
- › manipulates algebraic expressions and graphical functions to solve problems ME11-2
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7

#### Subtopic Focus

The principal focus of this subtopic is to explore the behaviour of polynomials algebraically, including the remainder and factor theorems, and sums and products of roots.



Students develop knowledge, skills and understanding to manipulate, analyse and solve polynomial equations. Polynomials are of fundamental importance in algebra and have many applications in higher mathematics. They are also significant in many other fields of study, including the sciences, engineering, finance and economics.



## Content






### F2.1: Remainder and factor theorems

Students:

- define a general polynomial in one variable,  $x$ , of degree  $n$  with real coefficients to be the expression:  $a_n x^n + a_{n-1} x^{n-1} + \dots + a_2 x^2 + a_1 x + a_0$ , where  $a_n \neq 0$ 
  - understand and use terminology relating to polynomials including degree, leading term, leading coefficient and constant term
- use division of polynomials to express  $P(x)$  in the form  $P(x) = A(x) \cdot Q(x) + R(x)$  where  $\deg R(x) < \deg A(x)$  and  $A(x)$  is a linear or quadratic divisor,  $Q(x)$  the quotient and  $R(x)$  the remainder
  - review the process of division with remainders for integers
  - describe the process of division using the terms: dividend, divisor, quotient, remainder 
- prove and apply the factor theorem and the remainder theorem for polynomials and hence solve simple polynomial equations (ACMSM089, ACMSM091) 

### F2.2: Sums and products of roots of polynomials

Students:

- solve problems using the relationships between the roots and coefficients of quadratic, cubic and quartic equations **AAM** 
  - consider quadratic, cubic and quartic equations, and derive formulae as appropriate for the sums and products of roots in terms of the coefficients
- determine the multiplicity of a root of a polynomial equation 
  - prove that if a polynomial equation of the form  $P(x) = 0$  has a root of multiplicity  $r > 1$ , then  $P'(x) = 0$  has a root of multiplicity  $r - 1$
- graph a variety of polynomials and investigate the link between the root of a polynomial equation and the zero on the graph of the related polynomial function   
  - examine the sign change of the function and shape of the graph either side of roots of varying multiplicity



<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Extension 1
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Question Bank & Topic Test – Further work with Functions & Polynomials
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will submit Part A of the task to your classroom teacher either on or before the due date and complete the examination during your allocated timetabled lesson.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below.

#### Outcomes Assessed:

<b>Syllabus Code</b>	<b>Syllabus Description</b>
ME11-1	Uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses
ME11-2	Manipulates algebraic expressions and graphical functions to solve problems
ME11-6	Uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts
ME11-7	Communicates making comprehensive use of mathematical language, notation, <u>diagrams</u> and graphs

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



### Task Description:

#### Part A-15%

Students will complete a question bank in their own time. It is required that the question bank is submitted to the class teacher on or before the due date.

Solutions to the question bank are required to be handwritten on separate paper.

#### Part B- 20%

Students will sit a formal topic test during their normal timetables lesson. Time allowed is 50 minutes.

The assessment task will assess students' knowledge and understanding of course content from the 'Further Work with Functions and Polynomials' topic.

**Note:** Due to the cumulative nature of mathematics, knowledge from earlier Stages is essential.

**Permissible calculators: Only those listed on the NESA website allowed –** (Seek clarification from Head Teacher Mathematics if unsure)

### Success Criteria:

To be successful in this topic test: I Can -

- Examine the relationships between graphs and sketch graphs
- Apply knowledge of graphical relationships to solve problems in practical and abstract contexts
- Solve quadratic inequalities using both algebraic and graphical techniques
- Solve inequalities involving rational expression, including those with an unknown in the denominator
- Solve absolute inequalities
- Define the inverse relation of a function
- Examine and use the reflection property of the graph of a function and the graph of its inverse
- Write the rule or rules for the inverse relation by exchanging  $x$  and  $y$  in the function rules, including any restrictions and solve for  $y$  if possible
- Use the correct notation when the inverse relation is a function and identify th relationships between the domains and ranges
- Restrict the domain to obtain new functions

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	





## Trigonometric Functions

### ME-T1 Inverse Trigonometric Functions

#### Outcomes

**A student:**

- › uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses ME11-1
- › applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems ME11-3
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7

#### Subtopic Focus

The principal focus of this subtopic is for students to determine and to work with the inverse trigonometric functions.




Students explore inverse trigonometric functions which are important examples of inverse functions. They sketch the graphs of these functions and apply a range of properties to extend their knowledge and understanding of the connections between algebraic and geometrical representations of functions. This enables a deeper understanding of the nature of periodic functions, which are used as powerful modelling tools for any quantity that varies in a cyclical way.

#### Content

Students:

- define and use the inverse trigonometric functions (ACMSM119)
  - understand and use the notation  $\arcsin x$  and  $\sin^{-1}x$  for the inverse function of  $\sin x$  when  $-\frac{\pi}{2} \leq x \leq \frac{\pi}{2}$  (and similarly for  $\cos x$  and  $\tan x$ ) and understand when each notation might be appropriate to avoid confusion with the reciprocal functions
  - use the convention of restricting the domain of  $\sin x$  to  $-\frac{\pi}{2} \leq x \leq \frac{\pi}{2}$ , so the inverse function exists. The inverse of this restricted sine function is defined by:  $y = \sin^{-1}x$ ,  $-1 \leq x \leq 1$  and  $-\frac{\pi}{2} \leq y \leq \frac{\pi}{2}$
  - use the convention of restricting the domain of  $\cos x$  to  $0 \leq x \leq \pi$ , so the inverse function exists. The inverse of this restricted cosine function is defined by:  $y = \cos^{-1}x$ ,  $-1 \leq x \leq 1$  and  $0 \leq y \leq \pi$
  - use the convention of restricting the domain of  $\tan x$  to  $-\frac{\pi}{2} < x < \frac{\pi}{2}$ , so the inverse function exists. The inverse of this restricted tangent function is defined by:  $y = \tan^{-1}x$ ,  $x$  is a real number and  $-\frac{\pi}{2} < y < \frac{\pi}{2}$
  - classify inverse trigonometric functions as odd, even or neither odd nor even



- sketch graphs of the inverse trigonometric functions  
- use the relationships  $\sin(\sin^{-1}x) = x$  and  $\sin^{-1}(\sin x) = x$ ,  $\cos(\cos^{-1}x) = x$  and  $\cos^{-1}(\cos x) = x$ , and  $\tan(\tan^{-1}x) = x$  and  $\tan^{-1}(\tan x) = x$  where appropriate, and state the values of  $x$  for which these relationships are valid
- prove and use the properties:  $\sin^{-1}(-x) = -\sin^{-1}x$ ,  $\cos^{-1}(-x) = \pi - \cos^{-1}x$ ,  $\tan^{-1}(-x) = -\tan^{-1}x$  and  $\cos^{-1}x + \sin^{-1}x = \frac{\pi}{2}$
- solve problems involving inverse trigonometric functions in a variety of abstract and practical situations **AAM** 

<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Extension 1
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Inverse Trigonometric Functions Screencast
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You will submit the task to your classroom teacher online via google classroom either on or before the due date and time
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below by Mr Neal.

Outcomes Assessed:	
Syllabus Code	Syllabus Description
ME11-1	Uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses
ME11-3	Applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems.
ME11-6	Uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts
ME11-7	Communicates making comprehensive use of mathematical language, notation, diagrams, and graphs



**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

**Task Description:**

Students are to record a screencast to introduce Year 10 Stage 5.3 to Inverse Trigonometric Functions. In the screencast, they are to use Desmos/~~Geogebra~~ to demonstrate how to sketch the inverse Trigonometric Functions, the effect of variables on the shape of the graph, and what happens when functions are added.

Students should include as part of their screencast:

- Animation of their Desmos Graphs
- Appropriate language used to communicate important ideas
- How to demonstrate using a table of values to plot points and sketch the graphs for ~~arcsin~~, ~~arccos~~ and arctan
- How to compare the shape/ features of the graphs based on the variables used
- State the domain and range of each inverse Trigonometric function given a particular set of variables in their graph.

Submission is to be via google classroom.

**Success Criteria:**

To be successful in this topic test: I Can -

- Define and use the inverse trigonometric functions
- Use the convention of restricting the domain of inverse trigonometric functions
- Sketch graphs of the inverse trigonometric functions using a graphing tool
- Solve problems involving inverse trigonometric functions in a variety of abstract and practical ways

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this task if you use the marking guidelines to assist you.



Marking Guidelines:				
	0	1	2	3
Function Animation	No animation	Animates one graph	Animates most graphs	Animates all graphs
Appropriate Language	Language not accessible for students	Some language appropriate	Most language appropriate	All language explained and appropriate
Shows how to create a table of values	No mention of table of values	Table of values for one graph	Table of values for 2 graphs	Table of values explained for all graphs
Compares the Shape of each graph	No mention of shape of each graph	Minor mention of the shape of a graph	Mentions the shape of two graphs	Mentions the shape and features of each graph
States the domain and range of each of function	No mention of domain and range	Discusses domain and range of 1 graph	Discusses domain and range of 2 graphs	Discusses domain and range of all graphs.



## Trigonometric Functions

### ME-T2 Further Trigonometric Identities

#### Outcomes

##### A student:

- › uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses ME11-1
- › applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems ME11-3
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7


#### Subtopic Focus

The principal focus of this subtopic is for students to define and work with trigonometric identities to both prove results and manipulate expressions.


Students develop knowledge of how to manipulate trigonometric expressions to solve equations and to prove results. Trigonometric expressions and equations provide a powerful tool for modelling quantities that vary in a cyclical way such as tides, seasons, demand for resources, and alternating current. The solution of trigonometric equations may require the use of trigonometric identities.

#### Content

##### Students:

- derive and use the sum and difference expansions for the trigonometric functions  $\sin(A \pm B)$ ,  $\cos(A \pm B)$  and  $\tan(A \pm B)$  (ACMSM044)
  - $\sin(A \pm B) = \sin A \cos B \pm \cos A \sin B$
  - $\cos(A \pm B) = \cos A \cos B \mp \sin A \sin B$
  - $\tan(A \pm B) = \frac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$
- derive and use the double angle formulae for  $\sin 2A$ ,  $\cos 2A$  and  $\tan 2A$  (ACMSM044) 
  - $\sin 2A = 2 \sin A \cos A$
  - $\cos 2A = \cos^2 A - \sin^2 A$   
 $= 2 \cos^2 A - 1$   
 $= 1 - 2 \sin^2 A$
  - $\tan 2A = \frac{2 \tan A}{1 - \tan^2 A}$
- derive and use expressions for  $\sin A$ ,  $\cos A$  and  $\tan A$  in terms of  $t$  where  $t = \tan \frac{A}{2}$  (the  $t$ -formulae)
  - $\sin A = \frac{2t}{1+t^2}$
  - $\cos A = \frac{1-t^2}{1+t^2}$
  - $\tan A = \frac{2t}{1-t^2}$



- derive and use the formulae for trigonometric products as sums and differences for  $\cos A \cos B$ ,  $\sin A \sin B$ ,  $\sin A \cos B$  and  $\cos A \sin B$  (ACMSM047) 
  - $\cos A \cos B = \frac{1}{2}[\cos(A - B) + \cos(A + B)]$
  - $\sin A \sin B = \frac{1}{2}[\cos(A - B) - \cos(A + B)]$
  - $\sin A \cos B = \frac{1}{2}[\sin(A + B) + \sin(A - B)]$
  - $\cos A \sin B = \frac{1}{2}[\sin(A + B) - \sin(A - B)]$

## Calculus

### ME-C1 Rates of Change

#### Outcomes

##### A student:

- › uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses ME11-1
- › applies understanding of the concept of a derivative in the solution of problems, including rates of change, exponential growth and decay and related rates of change ME11-4
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7

#### Subtopic Focus

The principal focus of this subtopic is for students to solve problems involving the chain rule and differentiation of the exponential function, and understand how these concepts can be applied to the physical and natural sciences.


Students develop the ability to study motion problems in an abstract situation, which may in later studies be applied to large and small mechanical systems, from aeroplanes and satellites to miniature robotics. Students also study the mathematics of exponential growth and decay, two fundamental processes in the natural environment.



## Content

### C1.1: Rates of change with respect to time

Students:

- describe the rate of change of a physical quantity with respect to time as a derivative 
  - investigate examples where the rate of change of some aspect of a given object with respect to time can be modelled using derivatives **AAM**
  - use appropriate language to describe rates of change, for example 'at rest', 'initially', 'change of direction' and 'increasing at an increasing rate'
- find and interpret the derivative  $\frac{dQ}{dt}$ , given a function in the form  $Q = f(t)$ , for the amount of a physical quantity present at time  $t$
- describe the rate of change with respect to time of the displacement of a particle moving along the  $x$ -axis as a derivative  $\frac{dx}{dt}$  or  $\dot{x}$
- describe the rate of change with respect to time of the velocity of a particle moving along the  $x$ -axis as a derivative  $\frac{d^2x}{dt^2}$  or  $\ddot{x}$

## Combinatorics

### ME-A1 Working with Combinatorics

#### Outcomes

**A student:**

- › uses concepts of permutations and combinations to solve problems involving counting or ordering ME11-5
- › uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts ME11-6
- › communicates making comprehensive use of mathematical language, notation, diagrams and graphs ME11-7

#### Subtopic Focus

The principal focus of this subtopic is to develop students' understanding and proficiency with permutations and combinations and their relevance to the binomial coefficients.



Students develop proficiency in ordering and counting techniques in both restricted and unrestricted situations. The binomial expansion is introduced, Pascal's triangle is constructed and related identities are proved. The material studied provides the basis for more advanced work, where the binomial expansion is extended to cases for rational values of  $n$ , and applications in calculus are explored.



## Content

### A1.1: Permutations and combinations

Students:

- list and count the number of ways an event can occur
- use the fundamental counting principle (also known as the multiplication principle)
- use factorial notation to describe and determine the number of ways  $n$  different items can be arranged in a line or a circle
  - solve problems involving cases where some items are not distinct (excluding arrangements in a circle)
- solve simple problems and prove results using the pigeonhole principle (ACMSM006)
  - understand that if there are  $n$  pigeonholes and  $n + 1$  pigeons to go into them, then at least one pigeonhole must hold 2 or more pigeons
  - generalise to: If  $n$  pigeons are sitting in  $k$  pigeonholes, where  $n > k$ , then there is at least one pigeonhole with at least  $\frac{n}{k}$  pigeons in it
  - prove the pigeonhole principle
- understand and use permutations to solve problems (ACMSM001) 
  - understand and use the notation  ${}^n P_r$  and the formula  ${}^n P_r = \frac{n!}{(n-r)!}$
- solve problems involving permutations and restrictions with or without repeated objects (ACMSM004)
- understand and use combinations to solve problems (ACMSM007)
  - understand and use the notations  $\binom{n}{r}$  and  ${}^n C_r$  and the formula  ${}^n C_r = \frac{n!}{r!(n-r)!}$  (ACMMM045, ACMSM008)
- solve practical problems involving permutations and combinations, including those involving simple probability situations **AAM** 

### A1.2: The binomial expansion and Pascal's triangle

Students:

- expand  $(x + y)^n$  for small positive integers  $n$  (ACMMM046)
  - note the pattern formed by the coefficients of  $x$  in the expansion of  $(1 + x)^n$  and recognise links to Pascal's triangle
  - recognise the numbers  $\binom{n}{r}$  (also denoted  ${}^n C_r$ ) as binomial coefficients (ACMMM047)
- derive and use simple identities associated with Pascal's triangle (ACMSM009)
  - establish combinatorial proofs of the Pascal's triangle relations  ${}^n C_0 = 1$ ,  ${}^n C_n = 1$ ;  ${}^n C_r = {}^{n-1} C_{r-1} + {}^{n-1} C_r$  for  $1 \leq r \leq n - 1$ ; and  ${}^n C_r = {}^n C_{n-r}$





<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Extension 1
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Formal written examination
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	During the preliminary examination period. A timetable will be available two weeks before the examination period begins.
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during the allocated Preliminary Examination period.
<b>Marking Process:</b>	The assessment will be marked by Mr Neal using a format <u>similar to</u> that used in the HSC examination.

#### Outcomes Assessed:

<b>Syllabus Code</b>	<b>Syllabus Description</b>
ME11-1	Uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses
ME11-2	Manipulates algebraic expressions and graphical functions to solve problems
ME11-3	Applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems
ME11-4	Applies understanding of the concept of a derivative in the solution of problems, including rates of change, exponential growth and decay and related rates of change
ME11-5	Uses concepts of permutations and combinations to solve problems involving counting or ordering
ME11-6	Uses appropriate technology to investigate, organise and interpret information to solve problems in a range of contexts
ME11-7	Communicates making comprehensive use of mathematical language, notation, <u>diagrams</u> and graphs

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



#### Task Description:

You will sit a formal Preliminary Examination in the hall. Time allowed is 1 hour and 30 minutes with 10 minutes reading time. You will be provided with the HSC reference sheet for use within the examination.

The assessment task will assess students' knowledge and understanding of all topics learnt so far in the preliminary course.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this topic test: I Can -

- Use algebraic and graphical concepts to model and solve problems involving functions and their inverses
- Manipulate algebraic expressions and graphical to solve problems
- Apply concepts and techniques of inverse trigonometric functions
- Simplify expressions involving compound angles
- Apply the concept of a derivative in solutions to problems including rates of change and exponential growth and decay
- Use permutations and combinations to solve problems involving counting and ordering

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.





Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	





# **Mathematics**

## **Standard 2**



## Year 11 Course Structure and Requirements

The Year 11 course is organised in topics, with the topics divided into subtopics. The Year 11 course is undertaken by all students intending to study either the Mathematics Standard 1 Year 12 course or the Mathematics Standard 2 Year 12 course.

	Mathematics Standard	
	Topics	Subtopics
<b>Year 11 course (120 hours)</b>	Algebra	<b>MS-A1</b> Formulae and Equations 📎 <b>MS-A2</b> Linear Relationships
	Measurement	📎 <b>MS-M1</b> Applications of Measurement <b>MS-M2</b> Working with Time
	Financial Mathematics	<b>MS-F1</b> Money Matters
	Statistical Analysis	📎 <b>MS-S1</b> Data Analysis 📎 <b>MS-S2</b> Relative Frequency and Probability

- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.

## Year 12 Course Structure and Requirements

The courses are organised into topics, with the topics divided into subtopics.

	Mathematics Standard 1	
	Topics	Subtopics
<b>Year 12 course (120 hours)</b>	Algebra	📎 <b>MS-A3</b> Types of Relationships
	Measurement	📎 <b>MS-M3</b> Right-angled Triangles <b>MS-M4</b> Rates <b>MS-M5</b> Scale Drawings
	Financial Mathematics	📎 <b>MS-F2</b> Investment 📎 <b>MS-F3</b> Depreciation and Loans
	Statistical Analysis	📎 <b>MS-S3</b> Further Statistical Analysis
	Networks	<b>MS-N1</b> Networks and Paths



## Table of Objectives and Outcomes – Continuum of Learning

All aspects of Working Mathematically, as described within this syllabus, are integral to the outcomes of the Mathematics Standard Stage 6 course, in particular outcomes MS11-9, MS12-9, MS11-10 and MS12-10.

<b>Objective</b> Students: <ul style="list-style-type: none"> <li>develop the ability to apply reasoning, and the use of appropriate language, in the evaluation and construction of arguments and the interpretation and use of models based on mathematical concepts</li> </ul>		
<b>Year 11 Mathematics Standard outcomes</b> A student:	<b>Year 12 Mathematics Standard 1 outcomes</b> A student:	<del><b>Year 12 Mathematics Standard 2 outcomes</b></del> A student:
<b>MS11-1</b> uses algebraic and graphical techniques to compare alternative solutions to contextual problems	<b>MS1-12-1</b> uses algebraic and graphical techniques to evaluate and construct arguments in a range of familiar and unfamiliar contexts	<del><b>MS2-12-1</b></del> <del>uses detailed algebraic and graphical techniques to critically evaluate and construct arguments in a range of familiar and unfamiliar contexts</del>
<b>MS11-2</b> represents information in symbolic, graphical and tabular form	<b>MS1-12-2</b> analyses representations of data in order to make predictions and draw conclusions	<del><b>MS2-12-2</b></del> <del>analyses representations of data in order to make inferences, predictions and draw conclusions</del>



<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to use concepts and apply techniques to the solution of problems in algebra and modelling, measurement, financial mathematics, data and statistics, probability and networks</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 1 outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 2 outcomes</b></del></p> <p>A student:</p>
<p><b>MS11-3</b></p> <p>solves problems involving quantity measurement, including accuracy and the choice of relevant units</p>	<p><b>MS1-12-3</b></p> <p>interprets the results of measurements and calculations and makes judgements about their reasonableness</p>	<p><del><b>MS2-12-3</b></del></p> <p><del>interprets the results of measurements and calculations and makes judgements about their reasonableness, including the degree of accuracy and the conversion of units where appropriate</del></p>
<p><b>MS11-4</b></p> <p>performs calculations in relation to two-dimensional and three-dimensional figures</p>	<p><b>MS1-12-4</b></p> <p>analyses simple two-dimensional and three-dimensional models to solve practical problems</p>	<p><del><b>MS2-12-4</b></del></p> <p><del>analyses two-dimensional and three-dimensional models to solve practical problems</del></p>
<p><b>MS11-5</b></p> <p>models relevant financial situations using appropriate tools</p>	<p><b>MS1-12-5</b></p> <p>makes informed decisions about financial situations likely to be encountered post-school</p>	<p><del><b>MS2-12-5</b></del></p> <p><del>makes informed decisions about financial situations, including annuities and loan repayments</del></p>
<p><b>MS11-6</b></p> <p>makes predictions about everyday situations based on simple mathematical models</p>	<p><b>MS1-12-6</b></p> <p>represents the relationships between changing quantities in algebraic and graphical forms</p>	<p><del><b>MS2-12-6</b></del></p> <p><del>solves problems by representing the relationships between changing quantities in algebraic and graphical forms</del></p>



**Objective**

Students:

- develop the ability to use concepts and apply techniques to the solution of problems in algebra and modelling, measurement, financial mathematics, data and statistics, probability and networks

<b>Year 11 Mathematics Standard outcomes</b> A student:	<b>Year 12 Mathematics Standard 1 outcomes</b> A student:	<del><b>Year 12 Mathematics Standard 2 outcomes</b></del> A student:
<b>MS11-7</b> develops and carries out simple statistical processes to answer questions posed	<b>MS1-12-7</b> solves problems requiring statistical processes	<del><b>MS2-12-7</b></del> <del>solves problems requiring statistical processes, including the use of the normal distribution and the correlation of bivariate data</del>
<b>MS11-8</b> solves probability problems involving multistage events	<b>MS1-12-8</b> applies network techniques to solve network problems	<del><b>MS2-12-8</b></del> <del>solves problems using networks to model decision-making in practical problems</del>



<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to use mathematical skills and techniques, aided by appropriate technology, to organise information and interpret practical situations</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 1 outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 2 outcomes</b></del></p> <p>A student:</p>
<p><b>MS11-9</b></p> <p>uses appropriate technology to investigate, organise and interpret information in a range of contexts</p>	<p><b>MS1-12-9</b></p> <p>chooses and uses appropriate technology effectively and recognises appropriate times for such use</p>	<p><del><b>MS2-12-9</b></del></p> <p><del>chooses and uses appropriate technology effectively in a range of contexts, and applies critical thinking to recognise appropriate times and methods for such use</del></p>

<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to interpret and communicate mathematics in a variety of written and verbal forms, including diagrams and graphs</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 1 outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 2 outcomes</b></del></p> <p>A student:</p>
<p><b>MS11-10</b></p> <p>justifies a response to a given problem using appropriate mathematical terminology and/or calculations</p>	<p><b>MS1-12-10</b></p> <p>uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others</p>	<p><del><b>MS2-12-10</b></del></p> <p><del>uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others and justifying a response</del></p>





## Mathematics Standard One

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Question Bank & Topic Test - Probability	Investigation Style Assessment – Money & Budgeting	Formal Written Examination
		<b>Date:</b> Term 1 Week 8	<b>Date:</b> Term 2 Week 7	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> MS11-8, 9, 10	<b>Outcomes:</b> MS11-2, 5, 6, 9, 10	<b>Outcomes:</b> MS11- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
<b>TASK WEIGHTINGS</b>				
Understanding, fluency and communicating	50%	20%	15%	15%
Problem solving, reasoning and justification	50%	15%	15%	20%
<b>Total</b>	<b>100%</b>	<b>35%</b>	<b>30%</b>	<b>35%</b>

### Outcomes

#### **A student:**

- MS11-1 uses algebraic and graphical techniques to compare alternative solutions to contextual problems
- MS11-2 represents information in symbolic, graphical and tabular form
- MS11-3 solves problems involving quantity measurement, including accuracy and the choice of relevant units
- MS11-4 performs calculations in relation to two-dimensional figures and three-dimensional figures
- MS11-5 models relevant financial situations using appropriate tools
- MS11-6 makes predictions about everyday situations based on simple mathematical models
- MS11-7 develops and carries out simple statistical processes to answer questions posed
- MS11-8 solves probability problems involving multistage events
- MS11-9 uses appropriate technology to investigate, organise and interpret information in a range of contexts
- MS11-10 justifies a response to a given problem using appropriate mathematical terminology and/or calculations



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Term One	SDD	Calculator Skills	Probability			Formulae and Equations		Earning and Managing Money			
			<b>Outcomes:</b> MS11-8, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-10, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-1, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14		<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14			
	<ul style="list-style-type: none"> <li>Arithmetic skills</li> <li>Order of operations</li> <li>Simplifying fractions</li> <li>Converting FDP</li> </ul>		<ul style="list-style-type: none"> <li>Understand and use language associated with theoretical probability &amp; relative frequency with games &amp; experiments</li> </ul>			<ul style="list-style-type: none"> <li>Substitution</li> <li>Changing the subject</li> <li>Solve problems using formulae</li> <li>Develop and solve linear equations</li> </ul>		<ul style="list-style-type: none"> <li>Calculate pay rates from salaries</li> <li>Calculate wages, including commission, piecework and government allowances</li> <li>Annual leave loading</li> <li>Calculate income tax</li> </ul>			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Two	Budgeting & Household Expenses			Working with Time		Practicalities of Measurement and Units of Energy & Mass			Linear Relationships	
	<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14		<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-1, MS11-2, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14	
	<ul style="list-style-type: none"> <li>Interpret and use information about electricity, gas or water from bills</li> <li>Plan for the purchase of a car</li> <li>Plan for the running and maintenance of a car</li> <li>Personal budgets</li> </ul>			<ul style="list-style-type: none"> <li>Indicate positions on the Earth's surface (latitude and longitude)</li> <li>Calculate times and time differences around the world (conversions, time zones, UTC, IDL)</li> </ul>		<ul style="list-style-type: none"> <li>Metric units of measurement</li> <li>Absolute error</li> <li>Standard form</li> <li>Significant figures</li> <li>Metric units of mass</li> <li>Metric units of energy</li> <li>Energy expenditure</li> <li>Electricity consumption</li> </ul>			<ul style="list-style-type: none"> <li>Construct straight line graphs</li> <li>Interpret features of a straight-line graph</li> <li>Determine gradient and intercepts</li> <li>Solve direct variation problems</li> </ul>	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Three	Perimeter, Area and Volume			Interest & Depreciation		Classifying and Representing Data			Consolidation	Exam Period
	<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14		<b>Outcomes:</b> MS11-2, MS11-7, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-9, MALS6-13, MALS6-14				
	<ul style="list-style-type: none"> <li>Perimeters of plane shapes, including composite</li> <li>Pythagoras' theorem</li> <li>Areas of plane shapes, including composite</li> </ul>			<ul style="list-style-type: none"> <li>Simple interest</li> <li>Straight-line depreciation</li> <li>Percentage increase and decrease</li> <li>Recurrence relation</li> </ul>		<ul style="list-style-type: none"> <li>Samples and population</li> <li>Classifying data relating to single random variable</li> <li>Organise and display data</li> <li>Interpret and compare data</li> </ul>				

N.B. Summary statistics will be completed at the beginning of Term 4 before Year 12 content is begun.



## Statistical Analysis

### MS-S2 Relative Frequency and Probability

#### Outcomes

##### A student:

- › solves probability problems involving multistage events MS11-8
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-10, MALS6-13, MALS6-14

#### Subtopic Focus






The principal focus of this subtopic is to draw conclusions related to the chance that an event will occur.

Students develop awareness of the broad range of applications of probability concepts in everyday life and their use in decision-making.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### Content

Students:

- review, understand and use the language associated with theoretical probability and relative frequency  
  - construct a sample space for an experiment and use it to determine the number of outcomes (ACMEM154)
  - review probability as a measure of the 'likely chance of occurrence' of an event (ACMMM052)
  - review the probability scale:  $0 \leq P(A) \leq 1$  for each event  $A$ , with  $P(A) = 0$  if  $A$  is an impossibility and  $P(A) = 1$  if  $A$  is a certainty (ACMMM053)
- determine the probabilities associated with simple games and experiments  
  - use the following definition of probability of an event where outcomes are equally likely:
$$P(\text{event}) = \frac{\text{number of favourable outcomes}}{\text{total number of outcomes}}$$
  - calculate the probability of the complement of an event using the relationship
$$P(\text{an event does not occur}) = 1 - P(\text{the event does occur}) = P(\text{the event does occur}) = P(\text{event}^c)$$
- use arrays and tree diagrams to determine the outcomes and probabilities for multistage experiments (ACMEM156) **AAM** 
  - construct and use tree diagrams to establish the outcomes for a simple multistage event
  - use probability tree diagrams to solve problems involving two-stage events



<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Mathematics Standard
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Question Bank & Topic Test – Probability
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will submit Part A of the task to your classroom teacher either on or before the due date and complete the examination during your allocated timetabled lesson.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below by either Miss Thomas, Mr <u>Milton</u> or Mrs Skinner.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MS11-8	Solves probability problems involving multistage events
MS11-9	Uses appropriate technology to investigate, organise and interpret information in a range of contexts
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculations

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____



#### Task Description:

##### Part A-15%

You will complete a question bank in your own time. It is required that the question bank is submitted to your class teacher on or before the due date.

Solutions to the question bank are required to be handwritten on separate paper.

##### Part B- 20%

Students will sit a formal topic test in the hall. Time allowed is 50 minutes with 5 minutes reading time.

The assessment task will assess students' knowledge and understanding of course content from the 'Relative Frequency and Probability' topic.

**Note:** Due to the cumulative nature of mathematics, knowledge from earlier Stages is essential.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this topic test: I Can -

- Understand and use the language associated with theoretical probability and relative frequency
- Determine probabilities associated with simple games and experiments
- Use arrays and tree diagrams to determine the outcomes and probabilities for multi-stage experiments
- Solve problems involving simulations or trials of experiments in a variety of contexts
- Solve problems involving probability and/or relative frequency in a variety of contexts

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	





## Financial Mathematics

### MS-F1 Money Matters

#### Outcomes

##### A student:

- › represents information in symbolic, graphical and tabular form MS11-2
- › models relevant financial situations using appropriate tools MS11-5
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14

#### Subtopic Focus













The principal focus of this subtopic is to calculate and graph simple interest, manage earnings, wages and taxation, and develop an appropriate budget for a given situation.

Students develop an ability to justify various types of financial decisions which will affect their life now and into the future.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### F1.2: Earning and managing money

Students:

- calculate monthly, fortnightly, weekly, daily or hourly pay rates from a given salary, wages involving hourly rates and penalty rates, including situations involving overtime and other special allowances, and earnings based on commission (including commission based on a sliding scale), piecework or royalties ◊    
  - calculate annual leave loading
  - calculate payments based on government allowances and pensions (ACMGM003)
- calculate income tax ◊
  - identify allowable tax deductions    
  - calculate taxable income after allowable tax deductions are taken from gross pay 
  - calculate the Medicare levy (basic levy only)
  - calculate the amount of Pay As You Go (PAYG) tax payable per fortnight or week using current tax scales, and use this to determine if more tax is payable or if a refund is owing after completing a tax return 
- calculate net pay following deductions from income ◊
- use technology to perform financial computations, for example calculating percentage change, calculating tax payable and preparing a wage-sheet ◊  



### F1.3: Budgeting and household expenses

Students:

- interpret and use information about a household's electricity, water or gas usage and related charges and costs from household bills **AAM** ◊ ↕ 🗣
- plan for the purchase of a car **AAM** ◊ ⚙️ 📅
  - investigate on-road costs for new and used vehicles, including sale price (or loan repayments), registration, insurance and stamp duty at current rates 🗣 🗣
  - consider sustainability when choosing a vehicle to purchase, eg fuel consumption rates ↕
  - calculate and compare the cost of purchasing different vehicles using a spreadsheet ⚙️ 📄
- plan for the running and maintenance of a car **AAM** ◊ ⚙️ 📅
  - describe the different types of insurance available, including compulsory and non-compulsory third-party insurance, and comprehensive insurance 🗣 📅
  - investigate other running costs associated with ownership of a vehicle, eg cost of servicing, repairs and tyres 🗣 📅
  - calculate and compare the cost of running different vehicles using a spreadsheet ⚙️ 📄
- prepare a personal budget for a given income, taking into account fixed and discretionary spending (ACMGM004) **AAM** ◊ ⚙️ 📄 🗣





<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Mathematics Standard
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Investigation Style Assessment – Money & Budgeting
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You will submit your task to your classroom teacher either on or before the due date. There will be no class time allocated to completing this task.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below. It will be marked by at least two members of the mathematics faculty.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MS11-2	Represents information in symbolic, <u>graphical</u> and tabular form.
MS11-5	<u>Models</u> relevant financial situations using appropriate tools.
MS11-6	Makes predictions about everyday situations based on simple mathematical models.
MS11-9	Uses appropriate technology to investigate, organise and interpret information in a range of contexts.
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculations.

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.</p> <p><i>Participants Signature:</i> _____</p>



### Task Description:

#### Buying and Owning a Car

In this investigation you will examine the costs involved in buying and owning a car.

***For the purpose of this assessment it is assumed that you are living with your parents, you pay \$100/week board and living expenses. The expense of buying and running the car will be entirely yours.***

The project consists of the following sections:

**Section 1:** Selecting a suitable car for your needs.

**Section 2:** Calculating your income.

**Section 3:** Paying for your car.

**Section 4:** Costs associated with getting a NSW Driver licence

**Section 5:** Calculate fuel costs

**Section 6:** Determine insurance costs

**Section 7:** Creating a budget.

**Presentation of project:** This project should be completed in the booklet provided. You may be required to take screenshots from suggested websites and these will need to be uploaded to an assignment in Google Classroom.

This is an assessment you will complete in your own time and you will also be allocated **3 periods in-class**.

You may seek any clarifications about the assessment from your teacher as long as it is **out of class time**.

You can get help up **until 3 days prior to submission date**. Expect a 24-48 hour turnaround to receive any feedback.

All working out must be shown to demonstrate your understanding.



**Success Criteria:**

To be successful in this topic test: I Can -

- Apply percentage increase and decrease
- Calculate profit and loss in absolute and percentage terms
- Calculate simple interest (different rates and periods)
- Solve straight-line depreciation problems using  $S = V_0 - Dn$
- Calculate and graph compound interest with a spreadsheet
- Calculate monthly, fortnightly, weekly, daily or hourly pay rates from salary and wages involving penalty rates
- Calculate overtime and special allowances
- Calculate commission (including sliding scale)
- Calculate piecework and royalties
- Calculate annual Leave Loading
- Calculate payments based on government allowances and pensions
- Identify allowable tax deductions
- Calculate taxable income
- Calculate Medicare levy (basic)
- Calculate PAYG tax per week or fortnight, use this to determine tax refund or payable
- Calculate net pay following deductions from income
- Use technology to calculate percentage change, tax payable, preparing wage-sheet
- Interpret household bills
- Investigate on-road costs for purchasing a car (including registration, insurance and stamp duty)
- Compare fuel consumption rates in regards to sustainability
- Use a spreadsheet to calculate and compare the cost of purchasing different cars
- Describe the different types of insurance for cars (including compulsory and non-compulsory third-party insurance and comprehensive insurance)
- Investigate running costs (including servicing, repairs and tyres)
- Use a spreadsheet to calculate and compare the cost of running a vehicle
- Prepare a personal budget taking into account both fixed and discretionary spending

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.

Marking Guidelines:		Marks
Section	Description	Mark Awarded
1: Selecting a suitable car for your needs	1) Screenshot of car advertisement	/1
	2) Completed table	/2
	a) Part A completed (1)	
	b) Part B completed (1)	
	3) Reason for car choice	/1
	4) Stamp duty	
	a) working towards calculating stamp duty (1)	/2
	b) correctly calculates stamp duty (2)	
		<b>/6</b>
2: Calculating your income	1) Weekly earnings (casual)	/2
	a) calculated earnings for hours worked (1)	
	b) calculated total earnings (1)	
	2) Gross yearly income	/1
	3) Gross yearly income after sick leave	/1



	4) Tax calculated	/1
	5) Weekly earnings (full time)	
	a) calculated earnings for hours worked (1)	
	b) calculated total earnings (1)	/2
	6) Leave loading	
	a) calculated 4 weeks' pay (1)	
	b) calculated 17.5% leave loading (1)	
	c) calculated total holiday pay (1)	/3
	7) Taxable income	/1
	8) Tax calculated	
	a) working towards calculating tax (identification of tax bracket) (1)	
	b) correctly calculates tax (2)	/2
	9) Calculated refund from PAYG tax	/1
	10) Completed table with reasonable advantages and disadvantages	
	1 mark for each advantage (2)	
	1 mark for each disadvantage (2)	/4
		/18
3: Paying for your car	1) Scenario 1	/3
	2) Scenario 2	
	a) Deposit	/1
	b) Amount borrowed	/1
	c) Monthly repayments	/1
	d) Determination of affordability	/1
	e) Justified advantage of higher repayment	/1
	f) Justification of financial decision	/1
		/9
<b>Section</b>	<b>Description</b>	<b>Mark Awarded</b>
4: Cost associated with getting a NSW driver's license	1) Completed table	/7
		/7
5: Calculation of fuel consumption costs	1) Petrol prices	
	a) Distance travelled on litres of petrol	/1
	b) Annual fuel bill	/1
	c) Change of fuel consumption, what does it do?	/1
		/3
6: Determining insurance costs	1) Comprehensive insurance screenshot provided	/1
	2) Compulsory third party insurance screenshot provided	/1
		/2
7: Creating a budget	1) Completed table accurately from previous answers	
	1 mark for cost section completed	
	1 mark for total	/2



	2) Comparison between budget total and yearly net earnings made 1 mark for income table completed 1 mark for expenses table completed 1 mark for explanation	/3
		/5
	<b>Total marks awarded:</b>	<b>/50</b>

## **Buying and Owning a Car**

### **Can you afford to buy a car?**

In this investigation you will examine the costs involved in buying and owning a car.

***For the purpose of this project it is assumed that you are living with your parents, you pay \$100/week board and living expenses. The expense of buying and running the car will be entirely yours.***

The project consists of the following sections:

**Section 1:** Selecting a suitable car for your needs.

**Section 2:** Calculating your income.

**Section 3:** Paying for your car.

**Section 4:** Costs associated with getting a NSW Driver licence

**Section 5:** Calculate fuel costs

**Section 6:** Determine insurance costs

**Section 7:** Creating a budget.

**Presentation of project:** This project should be completed in the booklet provided. You may be required to take screenshots from suggested websites and these will need to be uploaded to an assignment in Google Classroom.

### **Section 1: Selecting a suitable car for your needs (6 marks)**

You are going to choose a car to buy.

Considerations may include:

- The look and appeal
- The amount of km the car has done
- The fuel efficiency



- How you will use the car?
- Manual/ Automatic
- Ease of resale
- Reliability of and condition of car
- The cost, do you think you can afford the car?

1) A popular car sales website is [www.carsales.com.au](http://www.carsales.com.au). Go to this website and choose your car. Take a screenshot of the car advertisement and submit electronically to Google Classroom Assignment.

**Screenshot Titled: "Car Advertisement"**

*No students may intentionally use the same advertisement.*

**(1 mark)**

Digital Submission of Car Advertisement	
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2) Complete the following table, providing information of your chosen car. **(2 marks)**

Part A	Make & Model	
	Price	
	Auto or manual	
	Colour	
	Amount of km the car has done	
	Business or private use	
Part B	Fuel efficiency	



3) Provide one reason why you chose that car. **(1 mark)**

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4) Stamp duty is charged at the following rates: **(2 marks)**

- For cars under \$45 000: 3% of the market value
- For cars at or over \$45 000: \$1 350 + 5% of the market value over \$45 000

Calculate the cost of stamp duty for your car.

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**Section 2: Calculating your income** **(18 marks)**

You are a casual employee at a department store. As a 16 year old, the award hourly rates are as follows.

		Hourly rate	Hours worked	Earnings
<b>Table A1</b>	Mon - Fri	\$13.25		
	Saturday	\$15.90		
	Sunday	\$18.55		
			<b>Total Earnings</b>	

1) You work 4 hours on Thursday night, 5 hours on Saturday and 4 hours on Sunday. Complete the table above, including a calculation of your total weekly earnings.

**(2 marks)**

2) You worked 48 weeks out of the year. What is your yearly gross income?

**(1 mark)**



- 
- 3) On three Thursdays and one Saturday during the year, you called up sick to work. What will be your yearly gross income now? **(1 mark)**
- 
- 

- 4) Below are the current income tax rates. Calculate how much tax you will pay for the year.

**Resident tax rates 2017-18**

Taxable income	Tax on this income
0 – \$18,200	Nil
\$18,201 – \$37,000	19c for each \$1 over \$18,200
\$37,001 – \$87,000	\$3,572 plus 32.5c for each \$1 over \$37,000
\$87,001 – \$180,000	\$19,822 plus 37c for each \$1 over \$87,000
\$180,001 and over	\$54,232 plus 45c for each \$1 over \$180,000

**(1 mark)**

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It is quite possible that should you choose a car with a finance plan, that you will still be paying off your car when you have left school. Say you decide to continue in the same job after school for a year. You are 18 years old, employed there full-time and your rates are as follows.

		Hourly rate	Hours worked	Earnings
<b>Table A2</b>	Mon - Fri	\$14.65		
	Saturday	\$18.31		
	Sunday	\$24.17		
			<b>Total Earnings</b>	





5) You worked 8 hours each day on Monday-Thursday, 8 hours on Saturday and no hours on Sunday. Complete the table above, including a calculation of your total weekly earnings.  
**(2 marks)**

6) As a full-time employee if you take your 4 weeks holiday leave you will earn leave loading. Leave loading is calculated at  $17\frac{1}{2}\%$  of 4 weeks pay. Calculate the total holiday pay.  
**(3 marks)**

4 weeks pay: \_\_\_\_\_

17.5% leave loading: \_\_\_\_\_

Total holiday pay: \_\_\_\_\_

7) You claim \$200 in uniform costs. Assuming your annual pay is \$32,425.  
 What is your taxable income? **(1 mark)**

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8) Use the tax table from the previous page. How much tax are you required to pay for the year? **(2 marks)**

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9) You are due to receive a refund. You paid \$65 per week in PAYG Tax. How much will this refund be? **(1 mark)**

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As an example only, if you were 18 and working **Casual** instead of **Full-time**, you would be earning \$18.74 on a normal day instead of \$14.99.

10) What are the advantages and disadvantages of working Full-time vs. Casual? **(4 marks)**

	Full time	Casual
Advantages	•	•



Disadvantages	•	•
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**Section 3: Paying for your car**

**(9 marks)**

There are different ways that you can pay for a car. You can save up and pay for it outright, or you can get a loan from a bank. You need to compare both of these options in order to make a decision.

- 1) Scenario 1- Saving up and buying outright:** Decide how much you will set aside per week. How long will it take for you to save up for your car? Use the weekly wages for a 18 year old that you calculated in Section 2 (question 5).

**(3 marks)**

Weekly Income	
How much are you going to set aside from your weekly pay to save for the car? <i>(This will be your decision)</i>	
Time taken to save for car <i>(cost of car divided by weekly savings)</i>	

**2) Scenario 2- Personal bank loan:**

You have given the car dealer a 20% deposit.

- a) Calculate the deposit you will pay for the car. Show your working. **(1 mark)**

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- b) You will have to borrow the remaining amount. Calculate the value of the amount you will borrow. Show your working **(1 mark)**

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- c) 25% of your annual income goes towards paying your car. What are your monthly repayments. Show your working. **(1 mark)**



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d) If the loan requires you to pay \$450 per month, can you afford this? How much more/less?  
**(1 mark)**

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e) Name one advantage of paying a higher repayment than necessary off your loan each month?  
**(1 mark)**

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f) Using the information calculated above, which scenario would you choose to buy your car?  
 saving for it     personal loan    Why?    **(1 marks)**

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#### **Section 4: Costs associated with getting a NSW Driver's licence**

**(7 marks)**

1) You will also need to get your **provisional driver's licence (P1)** if you wish to drive around in the car of your choice. There are various costs associated with this *including the cost of driving lessons*. Firstly, go to [www.rta.com.au](http://www.rta.com.au) to list the steps in sequential order and costs for each stage of getting your licence and record them in the table below.

<b>Steps for full drivers license</b>	<b>Cost</b>	
1. a) Drivers knowledge test	a)	<b>(1 mark)</b>
b) License fee	b)	<b>(1 mark)</b>
2. Driving lessons: Use the following website to find the cost of driving lessons. <a href="http://www.ltrent.com.au">www.ltrent.com.au</a>		<b>(1 mark)</b>
3. Hazard perception test		<b>(1 mark)</b>



4. a) Driving test for P1 license	a)	(1 mark)
b) License fee	b)	(1 mark)
Total cost		(1 mark)

**Section 5: Calculation of fuel consumption costs** (3 marks)

Assume your fuel consumption is 9L/100km

- a) How far can your car travel on 48L of petrol? Round to the nearest km. Show your working.  
(1 mark)

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- b) On average, you use 30L of petrol per week and the price of petrol is \$1.28 per litre. What is your annual fuel bill? (assuming you drive 52 weeks per year)  
(1 mark)

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- c) If your cars fuel consumption was 9.5 L/100km, how would this change your previous calculation?  
(1 mark)

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**Section 6: Determine insurance costs** (2 marks)

**Comprehensive car insurance**

Getting comprehensive insurance is important because if you have an accident, not only is your vehicle covered, but so is any other vehicle or property involved in the accident. You are going to get an online quote for comprehensive insurance.

Go to [www.nrma.com.au](http://www.nrma.com.au) and fill in the details to get a quote for comprehensive car insurance.

Note: you may have to put your birth year in as 2004 in order to get a quote. You can make up any other details you are not sure of. Upload a screenshot of your quote to Google Classroom assignment.

**Screenshot Titled: "Comprehensive car Insurance"** (1 mark)



Digital Submission of Comprehensive car insurance	
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**Compulsory Third Party (CPT) insurance**

You also have to get Compulsory Third Party (CTP) insurance. This covers the medical costs of anyone involved in an accident. If you don't have CTP insurance, you are not allowed to drive a car. Go to [www.nrma.com.au](http://www.nrma.com.au) , get a quote for CTP insurance and upload a screenshot of your quote to Google Classroom assignment.

**Screenshot Titled: "Third-party Insurance Quote" (1 mark)**

Digital Submission of Third party insurance	
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**Section 7: Creating a budget (5 marks)**

Costs for a car include vehicle registration which for your car is \$339 per year, and the cost of servicing the car and parts, which for your car is \$600 per year.

*These have been included in the table below. It has also been assumed that you will be paying off a car loan. These repayments have also been added to the table.*

- 1) Fill out the following table for the cost of running your car per year.

*All amounts given as YEARLY totals*

**(2 marks)**

	<b>Cost</b>
Stamp duty (section 1)	
Comprehensive insurance (section 6)	
CTP insurance (section 6)	
Petrol cost	



(section 5)	
Registration	\$339
Driving lessons (section 4)	
Service and parts	\$600
Car repayments (450 x 12)	\$5400
<b>Total</b>	

- 2) Compare the amount of money you need in your budget for car costs versus your net earnings.  
Complete the table below: **(2 marks)**

**Income:**

Annual earnings	
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**Expenses:**

Total yearly budget for car	
Assumed living costs (\$100 per week)	\$5200

Can you afford the ongoing costs of your car? Explain? **(1 mark)**

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## Algebra

### MS-A1 Formulae and Equations

#### Outcomes

**A student:**

- › uses algebraic and graphical techniques to compare alternative solutions to contextual problems MS11-1
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14

#### Subtopic Focus

The principal focus of this subtopic is to provide a solid foundation in algebraic skills, including finding solutions to a variety of equations in work-related and everyday contexts.

Students develop awareness of the applicability of algebra in their approach to everyday life.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.



## Content

Students:

- review substitution of numerical values into linear and non-linear algebraic expressions and equations ◊
  - review evaluating the subject of a formula, given the value of other pronumerals in the formula
  - change the subject of a formula
  - solve problems involving formulae, including calculating distance, speed and time (with change of units of measurement as required) or calculating stopping distances of vehicles using a suitable formula **AAM** 📐
- develop and solve linear equations, including those derived from substituting values into a formula, or those developed from a word description **AAM** ◊ ⚙️ 🗣️ 📐
- calculate and interpret blood alcohol content (BAC) based on drink consumption and body weight **AAM** 📐 🗣️
  - use formulae, both in word form and algebraic form, to calculate an estimate for blood alcohol content (*BAC*), including  $BAC_{\text{Male}} = \frac{10N-7.5H}{6.8M}$  and  $BAC_{\text{Female}} = \frac{10N-7.5H}{5.5M}$  where *N* is the number of standard drinks consumed, *H* is the number of hours of drinking, and *M* is the person's weight in kilograms
  - determine the number of hours required for a person to stop consuming alcohol in order to reach zero BAC, eg using the formula  $\text{time} = \frac{BAC}{0.015}$
  - describe limitations of methods estimating BAC
- calculate required medication dosages for children and adults from packets, given age or weight, using Fried's, Young's or Clark's formula as appropriate **AAM** 🗣️
  - Fried's formula: Dosage for children 1 – 2 years =  $\frac{\text{age (in months)} \times \text{adult dosage}}{150}$
  - Young's formula: Dosage for children 1 – 12 years =  $\frac{\text{age of child (in years)} \times \text{adult dosage}}{\text{age of child (in years)} + 12}$
  - Clark's formula: Dosage =  $\frac{\text{weight in kg} \times \text{adult dosage}}{70}$

## MS-A2 Linear Relationships 📐

### Outcomes

**A student:**

- › uses algebraic and graphical techniques to compare alternative solutions to contextual problems MS11-1
- › represents information in symbolic, graphical and tabular form MS11-2
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14





## Subtopic Focus












The principal focus of this subtopic is the graphing and interpretation of practical linear and direct variation relationships.

Students develop fluency in the graphical approach to linear modelling and its representativeness in common facets of their life.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

## Content

Students:

- model, analyse and solve problems involving linear relationships, including constructing a straight-line graph and interpreting features of a straight-line graph, including the gradient and intercepts **AAM**   
  - recognise that a direct variation relationship produces a straight-line graph
  - determine a direct variation relationship from a written description, a straight-line graph passing through the origin, or a linear function in the form  $y = mx$   
  - review the linear function  $y = mx + c$  and understand the geometrical significance of  $m$  and  $c$
  - recognise the gradient of a direct variation graph as the constant of variation **AAM**  
  - construct straight-line graphs both with and without the aid of technology (ACMGM040) 
- construct and analyse a linear model, graphically or algebraically, to solve practical direct variation problems, including the cost of filling a car with fuel or a currency conversion graph **AAM**   
  - identify and evaluate the limitations of a linear model in a practical context



## Topic: Measurement

### Outcomes

#### A student:

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Topic Focus

Measurement involves the application of knowledge, skills and understanding of numbers and geometry to quantify and solve problems in practical situations.

Knowledge of measurement enables completion of daily tasks such as making time estimations, measuring medicine, finding weights and understanding areas of materials or substances.

Study of measurement is important in developing students' ability to make reasonable estimates for quantities, apply appropriate levels of accuracy to particular situations, and apply understanding of aspects of measurement such as length, area, volume and similarity to a variety of problems.



## MS-M1 Applications of Measurement

### Outcomes

#### A student:

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to develop an awareness of the inherent error in measurements and to become competent in solving practical problems involving energy, mass, perimeter, area, volume and capacity.



Students develop knowledge of the concepts of measurement and demonstrate fluency with its application.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

## Content

### M1.1: Practicalities of measurement





Students:

- review the use of different metric units of measurement including units of area, take measurements, and calculate conversions between common units of measurement, for example kilometres to metres or litres to millilitres  $\diamond$
- calculate the absolute error of a reported measurement using  $\text{Absolute error} = \frac{1}{2} \times \text{Precision}$  and state the corresponding limits of accuracy  $\diamond$ 
  - find the limits of accuracy as given by:  
Upper bound = Measurement + Absolute error  
Lower bound = Measurement – Absolute error
  - investigate types of errors, eg human error or device limitations 
  - calculate the percentage error of a reported measurement using  
$$\text{Percentage error} = \frac{\text{Absolute error}}{\text{Measurement}} \times 100\%$$
- use standard form and standard metric prefixes in the context of measurement, with and without a required number of significant figures  $\diamond$  
  - standard prefixes include nano-, micro-, milli-, centi-, kilo-, mega-, giga- and tera-








### M1.2: Perimeter, area and volume

Students:

- review and extend how to solve practical problems requiring the calculation of perimeters and areas of triangles, rectangles, parallelograms, trapezia, circles, sectors of circles and composite shapes  $\diamond$   
  - review the use of Pythagoras' theorem to solve problems involving right-angled triangles
  - review the use of a scale factor to find unknown lengths in similar figures
- solve problems involving surface area of solids including prisms, cylinders, spheres and composite solids
- solve problems involving volume and capacity of solids including prisms, cylinders, spheres, pyramids and composite solids
  - convert between units of volume and capacity
- calculate perimeters and areas of irregularly shaped blocks of land by dissection into regular shapes including triangles and trapezia **AAM** 
  - derive the Trapezoidal rule for a single application,  $A \approx \frac{h}{2}(d_f + d_l)$
  - use the Trapezoidal rule to solve a variety of practical problems with and without technology, eg the volume of water in a swimming pool 
- solve problems involving perimeters, area, surface area, volumes and capacity in a variety of contexts **AAM**

### M1.3: Units of energy and mass

Students:

- review the use of metric units of mass in solving problems, including grams, kilograms and tonnes, their abbreviations and how to convert between them  $\diamond$  
- use metric units of energy to solve problems, including calories, kilocalories, joules and kilojoules, their abbreviations and how to convert between them  $\diamond$
- use units of energy and mass to solve problems related to food and nutrition, including calories  $\diamond$  
- use units of energy to solve problems involving the amount of energy expended in activities, for example kilojoules  $\diamond$  
- use units of energy to solve problems involving the consumption of electricity, for example kilowatt hours, and investigate common appliances in terms of their energy consumption **AAM**  $\diamond$   



## MS-M2 Working with Time

### Outcomes

#### A student:

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to understand concepts related to locations on Earth's surface and calculation of time differences.

Students develop awareness of being a global citizen and the relationships between different countries in terms of location, distance and time.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

Students:

- indicate positions on the Earth's surface ◊
  - locate points on Earth's surface using latitude, longitude or position coordinates with a globe, an atlas and digital technologies, eg a smartphone or GPS device 📱
  - understand and use the link between longitude and time to find time differences
- calculate times and time differences around the world **AAM** ◊
  - review using units of time, converting between 12-hour and 24-hour clocks and calculating time intervals
  - understand and use the link between longitude and time to find time differences
  - solve problems involving time zones in Australia and in neighbouring nations, making any necessary allowances for daylight saving (ACMEM163) 🌐 🕒 🌍
  - solve problems involving Coordinated Universal Time (UTC), and the International Date Line (IDL)
  - find time differences between two places on Earth using recognised international time zones (ACMEM165) 🌐 🕒
  - review how to interpret timetables, eg bus, train and ferry timetables, and use them to solve problems 🕒 🕒
  - solve practical problems, eg travelling east and west, incorporating time zones, or internet and phone usage across time zones, or the timing of events broadcast live from states of countries between different time zones 🌐 📱 🌐 🕒





## MS-F1 Money Matters

### Outcomes

#### A student:

- › represents information in symbolic, graphical and tabular form MS11-2
- › models relevant financial situations using appropriate tools MS11-5
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to calculate and graph simple interest, manage earnings, wages and taxation, and develop an appropriate budget for a given situation.

Students develop an ability to justify various types of financial decisions which will affect their life now and into the future.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

#### F1.1: Interest and depreciation

Students:

- apply percentage increase or decrease in various contexts, eg calculating the goods and services tax (GST) payable on a range of goods and services, and calculating profit or loss in absolute and percentage terms  $\diamond$
- calculate simple interest for different rates and periods (ACMEM064)  $\diamond$ 
  - use technology or otherwise to compare simple interest graphs for different rates and periods
- calculate the depreciation of an asset using the straight-line method as an application of the simple interest formula **AAM**  $\diamond$ 
  - use  $S = V_0 - Dn$ , where  $S$  is the salvage value of the asset after  $n$  periods,  $V_0$  is the initial value of the asset,  $D$  is the amount of depreciation per period, and  $n$  is the number of periods
- use a spreadsheet to calculate and graph compound interest as a recurrence relation involving repeated applications of simple interest **AAM**  $\diamond$



## MS-S1 Data Analysis

### Outcomes

#### A student:

- › represents information in symbolic, graphical and tabular form MS11-2
- › develops and carries out simple statistical processes to answer questions posed MS11-7
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-9, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is planning and management of data collection, classification and representation of data, calculation of summary statistics for single datasets and their use in the interpretation of data.


Students develop awareness of the importance of statistical processes and inquiry in society.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.











### Content

#### **S1.1: Classifying and representing data (grouped and ungrouped)**

Students:

- describe and use appropriate data collection methods for a population or samples  $\diamond$ 
  - investigate whether a sample obtained from a population may or may not be representative of the population by considering different kinds of sampling methods: systematic sampling, self-selected sampling, capture-recapture, simple random sampling and stratified sampling
  - investigate the advantages and disadvantages of each type of sampling
  - describe the potential faults in the design and practicalities of data collection processes, eg surveys, experiments and observational studies, misunderstandings and misrepresentations, including examples from the media
- classify data relating to a single random variable  $\diamond$  
  - classify a categorical variable as either ordinal, eg income level (low, medium, high) or nominal, eg place of birth (Australia, overseas)
  - classify a numerical variable as either discrete, eg the number of rooms in a house, or continuous, eg the temperature in degrees Celsius



- review how to organise and display data into appropriate tabular and/or graphical representations **AAM**   
  - display categorical data in tables and, as appropriate, in both bar charts or Pareto charts
  - display numerical data as frequency distribution tables and histograms, cumulative frequency distribution tables and graphs, dot plots and stem and leaf plots (including back-to-back where comparing two datasets)
  - construct and interpret tables and graphs related to real-world contexts, including: motor vehicle safety including driver behaviour, accident statistics, blood alcohol content over time, running costs of a motor vehicle, costs of purchase and insurance, vehicle depreciation, rainfall, hourly temperature, household and personal water usage  
- interpret and compare data by considering it in tabular and/or graphical representations **AAM**  
  - choose appropriate tabular and/or graphical representations to enable comparisons
  - compare the suitability of different methods of data presentation in real-world contexts, including their visual appeal, eg a heat map to illustrate climate change data or the median house prices across suburbs   

<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Standard 1
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Exam
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	During the preliminary examination period. A timetable will be available two weeks before the examination period begins.
<b>Weighting:</b>	35%
<b>Class Time Allocated:</b>	No class time will be allocated.
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during the allocated Preliminary Examination period.
<b>Marking Process:</b>	The assessment will be marked by either Miss Thomas, Mr Milne or Ms Jamieson using a format similar to that used in the HSC examination.





#### Outcomes Assessed:

Syllabus Code	Syllabus Description
MS11-1	Uses algebraic and graphical techniques to compare alternative solutions to contextual problems
MS11-3	Solves problems involving quantity measurement, including accuracy and the choice of relevant units
MS11-4	Performs calculations in relation to two-dimensional figures
MS11-5	<u>Models</u> relevant financial situations using appropriate tools
MS11-6	Makes predictions about everyday situations based on simple mathematical methods
MS11-8	Solves probability problems involving multi-stage events
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculation.

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

Participants Signature: \_\_\_\_\_

#### Task Description:

You will sit a formal Preliminary Examination in the hall. Time allowed is 2 hours with 10 minutes reading time. You will be provided with the HSC reference sheet for use within the examination.

The assessment task will assess students' knowledge and understanding of all topics learnt so far in the preliminary course.

**Permissible calculators: Only those listed on the NESAs website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this examination: I can -

- Use algebraic and graphical to compare alternative solutions to contextual problems
- Represent information in symbolic, graphical and tabular form
- Solve problems involving quantity measurement, including accuracy and the choice of relevant units
- Model relevant financial situations using appropriate tools
- Make predictions about everyday situations based on simple mathematical models
- Solve probability problems involving multistage events
- Justify a response to a given problem using appropriate mathematical terminology and/or terminology

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	



# **Mathematics**

## **Standard 1**



## Year 11 Course Structure and Requirements

The Year 11 course is organised in topics, with the topics divided into subtopics. The Year 11 course is undertaken by all students intending to study either the Mathematics Standard 1 Year 12 course or the Mathematics Standard 2 Year 12 course.

	Mathematics Standard	
	Topics	Subtopics
Year 11 course (120 hours)	Algebra	<b>MS-A1</b> Formulae and Equations 📎 <b>MS-A2</b> Linear Relationships
	Measurement	📎 <b>MS-M1</b> Applications of Measurement <b>MS-M2</b> Working with Time
	Financial Mathematics	<b>MS-F1</b> Money Matters
	Statistical Analysis	📎 <b>MS-S1</b> Data Analysis 📎 <b>MS-S2</b> Relative Frequency and Probability

- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.

## Mathematics Standard 2 Year 12 Course Content

### Mathematics Standard 2 Year 12 Course Structure and Requirements

The courses are organised into topics, with the topics divided into subtopics.

	Mathematics Standard 2	
	Topics	Subtopics
Year 12 course (120 hours)	Algebra	📎 <b>MS-A4</b> Types of Relationships
	Measurement	📎 <b>MS-M6</b> Non-right-angled Trigonometry <b>MS-M7</b> Rates and Ratios
	Financial Mathematics	📎 <b>MS-F4</b> Investments and Loans 📎 <b>MS-F5</b> Annuities
	Statistical Analysis	📎 <b>MS-S4</b> Bivariate Data Analysis 📎 <b>MS-S5</b> The Normal Distribution
	Networks	<b>MS-N2</b> Network Concepts <b>MS-N3</b> Critical Path Analysis

- Students should experience content in the course in familiar and routine situations as well as unfamiliar situations.
- Students should be provided with regular opportunities involving the integration of technology to enrich the learning experience.



## Table of Objectives and Outcomes – Continuum of Learning

All aspects of Working Mathematically, as described within this syllabus, are integral to the outcomes of the Mathematics Standard Stage 6 course, in particular outcomes MS11-9, MS12-9, MS11-10 and MS12-10.

<b>Objective</b> Students: <ul style="list-style-type: none"> <li>develop the ability to apply reasoning, and the use of appropriate language, in the evaluation and construction of arguments and the interpretation and use of models based on mathematical concepts</li> </ul>		
<b>Year 11 Mathematics Standard outcomes</b> A student:	<del><b>Year 12 Mathematics Standard 1 outcomes</b></del> A student:	<b>Year 12 Mathematics Standard 2 outcomes</b> A student:
<b>MS11-1</b> uses algebraic and graphical techniques to compare alternative solutions to contextual problems	<del><b>MS1-12-1</b></del> <del>uses algebraic and graphical techniques to evaluate and construct arguments in a range of familiar and unfamiliar contexts</del>	<b>MS2-12-1</b> uses detailed algebraic and graphical techniques to critically evaluate and construct arguments in a range of familiar and unfamiliar contexts
<b>MS11-2</b> represents information in symbolic, graphical and tabular form	<del><b>MS1-12-2</b></del> <del>analyses representations of data in order to make predictions and draw conclusions</del>	<b>MS2-12-2</b> analyses representations of data in order to make inferences, predictions and draw conclusions



<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to use concepts and apply techniques to the solution of problems in algebra and modelling, measurement, financial mathematics, data and statistics, probability and networks</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 1 outcomes</b></del></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 2 outcomes</b></p> <p>A student:</p>
<p><b>MS11-3</b></p> <p>solves problems involving quantity measurement, including accuracy and the choice of relevant units</p>	<p><del><b>MS1-12-3</b></del></p> <p><del>interprets the results of measurements and calculations and makes judgements about their reasonableness</del></p>	<p><b>MS2-12-3</b></p> <p>interprets the results of measurements and calculations and makes judgements about their reasonableness, including the degree of accuracy and the conversion of units where appropriate</p>
<p><b>MS11-4</b></p> <p>performs calculations in relation to two-dimensional and three-dimensional figures</p>	<p><del><b>MS1-12-4</b></del></p> <p><del>analyses simple two-dimensional and three-dimensional models to solve practical problems</del></p>	<p><b>MS2-12-4</b></p> <p>analyses two-dimensional and three-dimensional models to solve practical problems</p>
<p><b>MS11-5</b></p> <p>models relevant financial situations using appropriate tools</p>	<p><del><b>MS1-12-5</b></del></p> <p><del>makes informed decisions about financial situations likely to be encountered post school</del></p>	<p><b>MS2-12-5</b></p> <p>makes informed decisions about financial situations, including annuities and loan repayments</p>
<p><b>MS11-6</b></p> <p>makes predictions about everyday situations based on simple mathematical models</p>	<p><del><b>MS1-12-6</b></del></p> <p><del>represents the relationships between changing quantities in algebraic and graphical forms</del></p>	<p><b>MS2-12-6</b></p> <p>solves problems by representing the relationships between changing quantities in algebraic and graphical forms</p>



**Objective**

Students:

- develop the ability to use concepts and apply techniques to the solution of problems in algebra and modelling, measurement, financial mathematics, data and statistics, probability and networks

<b>Year 11 Mathematics Standard outcomes</b> A student:	<del>Year 12 Mathematics Standard 1 outcomes</del> A student:	<b>Year 12 Mathematics Standard 2 outcomes</b> A student:
<b>MS11-7</b> develops and carries out simple statistical processes to answer questions posed	<del><b>MS1-12-7</b>            solves problems requiring statistical processes</del>	<b>MS2-12-7</b> solves problems requiring statistical processes, including the use of the normal distribution and the correlation of bivariate data
<b>MS11-8</b> solves probability problems involving multistage events	<del><b>MS1-12-8</b>            applies network techniques to solve network problems</del>	<b>MS2-12-8</b> solves problems using networks to model decision-making in practical problems



<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to use mathematical skills and techniques, aided by appropriate technology, to organise information and interpret practical situations</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 1 outcomes</b></del></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 2 outcomes</b></p> <p>A student:</p>
<p><b>MS11-9</b></p> <p>uses appropriate technology to investigate, organise and interpret information in a range of contexts</p>	<p><del><b>MS1-12-9</b></del></p> <p><del>chooses and uses appropriate technology effectively and recognises appropriate times for such use</del></p>	<p><b>MS2-12-9</b></p> <p>chooses and uses appropriate technology effectively in a range of contexts, and applies critical thinking to recognise appropriate times and methods for such use</p>

<p><b>Objective</b></p> <p>Students:</p> <ul style="list-style-type: none"> <li>develop the ability to interpret and communicate mathematics in a variety of written and verbal forms, including diagrams and graphs</li> </ul>		
<p><b>Year 11 Mathematics Standard outcomes</b></p> <p>A student:</p>	<p><del><b>Year 12 Mathematics Standard 1 outcomes</b></del></p> <p>A student:</p>	<p><b>Year 12 Mathematics Standard 2 outcomes</b></p> <p>A student:</p>
<p><b>MS11-10</b></p> <p>justifies a response to a given problem using appropriate mathematical terminology and/or calculations</p>	<p><del><b>MS1-12-10</b></del></p> <p><del>uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others</del></p>	<p><b>MS2-12-10</b></p> <p>uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others and justifying a response</p>





## Mathematics Standard Two

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b> Question Bank & Topic Test - Probability	<b>Task 2:</b> Investigation Style Assessment – Money & Budgeting	<b>Task 3:</b> Formal Written Examination
		<b>Date:</b> Term 1 Week 8	<b>Date:</b> Term 2 Week 7	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> MS11-8, 9, 10	<b>Outcomes:</b> MS11-2, 5, 6, 9, 10	<b>Outcomes:</b> MS11- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
		<b>TASK WEIGHTINGS</b>		
Understanding, fluency and communicating	50%	20%	15%	15%
Problem solving, reasoning and justification	50%	15%	15%	20%
<b>Total</b>	<b>100%</b>	<b>35%</b>	<b>30%</b>	<b>35%</b>

### Outcomes

#### **A student:**

- MS11-1 uses algebraic and graphical techniques to compare alternative solutions to contextual problems
- MS11-2 represents information in symbolic, graphical and tabular form
- MS11-3 solves problems involving quantity measurement, including accuracy and the choice of relevant units
- MS11-4 performs calculations in relation to two-dimensional figures and three-dimensional figures
- MS11-5 models relevant financial situations using appropriate tools
- MS11-6 makes predictions about everyday situations based on simple mathematical models
- MS11-7 develops and carries out simple statistical processes to answer questions posed
- MS11-8 solves probability problems involving multistage events
- MS11-9 uses appropriate technology to investigate, organise and interpret information in a range of contexts
- MS11-10 justifies a response to a given problem using appropriate mathematical terminology and/or calculations



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Term One	SDD	Probability			Formulae and Equations				Earning and Managing Money		
		<b>Outcomes:</b> MS11-8, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-10, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-1, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14				<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14		
		<ul style="list-style-type: none"> <li>Understand and use language associated with theoretical probability &amp; relative frequency</li> <li>Determine the probabilities associated with games &amp; experiments</li> <li>Use arrays and tree diagrams</li> </ul>			<ul style="list-style-type: none"> <li>Substitution</li> <li>Changing the subject</li> <li>Develop and solve linear equations</li> <li>Blood Alcohol Content</li> <li>Medication Dosages</li> </ul>				<ul style="list-style-type: none"> <li>Calculate pay rates from salaries</li> <li>Calculate wages, including commission</li> <li>Annual leave loading</li> <li>Calculate income tax</li> <li>Percentage change</li> </ul>		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Two	Budgeting & Household Expenses			Working with Time		Practicalities of Measurement and Units of Energy & Mass			Linear Relationships	
	<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14		<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14			<b>Outcomes:</b> MS11-1, MS11-2, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14	
	<ul style="list-style-type: none"> <li>Interpret and use information about electricity, gas or water from bills</li> <li>Plan for the purchase of a car</li> <li>Plan for the running and maintenance of a car</li> <li>Personal budgets</li> </ul>			<ul style="list-style-type: none"> <li>Indicate positions on the Earth's surface (latitude and longitude)</li> <li>Calculate times and time differences around the world (conversions, time zones, UTC, IDL)</li> </ul>		<ul style="list-style-type: none"> <li>Metric units of measurement</li> <li>Absolute error</li> <li>Standard form</li> <li>Significant figures</li> <li>Metric units of mass</li> <li>Metric units of energy</li> <li>Energy expenditure</li> <li>Electricity consumption</li> </ul>			<ul style="list-style-type: none"> <li>Construct straight line graphs</li> <li>Interpret features of a straight-line graph</li> <li>Determine gradient and intercepts</li> <li>Solve direct variation problems</li> </ul>	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term Three	Perimeter, Area and Volume				Interest & Depreciation		Classifying and Representing Data			Exam Period
	<b>Outcomes:</b> MS11-3, MS11-4, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-3, MALS6-4, MALS6-13, MALS6-14				<b>Outcomes:</b> MS11-2, MS11-5, MS11-6, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14		<b>Outcomes:</b> MS11-2, MS11-7, MS11-9, MS11-10 <b>Life Skills:</b> MALS6-2, MALS6-9, MALS6-13, MALS6-14			
	<ul style="list-style-type: none"> <li>Perimeters of plane shapes, including composite</li> <li>Pythagoras' theorem</li> <li>Areas of plane shapes, including composite</li> <li>Surface area of prisms, cylinders, spheres and composite solids</li> <li>Volume and capacity of prisms, cylinders, spheres and composite solids</li> <li>Trapezoidal rule</li> </ul>				<ul style="list-style-type: none"> <li>Simple interest</li> <li>Straight-line depreciation</li> <li>Percentage increase and decrease</li> <li>Recurrence relation</li> </ul>		<ul style="list-style-type: none"> <li>Samples and population</li> <li>Classifying data relating to single random variable</li> <li>Organise and display data</li> <li>Interpret and compare data</li> </ul>			

N.B. Summary statistics will be completed at the beginning of Term 4 before Year 12 content is begun.



## Statistical Analysis

### MS-S2 Relative Frequency and Probability

#### Outcomes

**A student:**

- › solves probability problems involving multistage events MS11-8
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-10, MALS6-13, MALS6-14

#### Subtopic Focus

The principal focus of this subtopic is to draw conclusions related to the chance that an event will occur.








Students develop awareness of the broad range of applications of probability concepts in everyday life and their use in decision-making.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.



## Content

### Students:

- review, understand and use the language associated with theoretical probability and relative frequency  $\diamond$  
  - construct a sample space for an experiment and use it to determine the number of outcomes (ACMEM154)
  - review probability as a measure of the 'likely chance of occurrence' of an event (ACMMM052)
  - review the probability scale:  $0 \leq P(A) \leq 1$  for each event  $A$ , with  $P(A) = 0$  if  $A$  is an impossibility and  $P(A) = 1$  if  $A$  is a certainty (ACMMM053)
- determine the probabilities associated with simple games and experiments  $\diamond$  
  - use the following definition of probability of an event where outcomes are equally likely:  
$$P(\text{event}) = \frac{\text{number of favourable outcomes}}{\text{total number of outcomes}}$$
  - calculate the probability of the complement of an event using the relationship  
$$P(\text{an event does not occur}) = 1 - P(\text{the event does occur}) = P(\overline{\text{the event does occur}}) = P(\text{event}^c)$$
- use arrays and tree diagrams to determine the outcomes and probabilities for multistage experiments (ACMEM156) **AAM** 
  - construct and use tree diagrams to establish the outcomes for a simple multistage event
  - use probability tree diagrams to solve problems involving two-stage events
- solve problems involving simulations or trials of experiments in a variety of contexts **AAM**  $\diamond$  
  - perform simulations of experiments using technology (ACMEM150) 
  - use relative frequency as an estimate of probability (ACMEM152)
  - recognise that an increasing number of trials produces relative frequencies that gradually become closer in value to the theoretical probability 
  - identify factors that could complicate the simulation of real-world events (ACMEM153)
- solve problems involving probability and/or relative frequency in a variety of contexts **AAM** 
  - use existing known probabilities, or estimates based on relative frequencies to calculate expected frequency for a given sample or population, eg predicting, by calculation, the number of people of each blood type in a population given a two-way table of percentage breakdowns
  - calculate the expected frequency of an event occurring using  $np$  where  $n$  represents the number of times an experiment is repeated, and on each of those times the probability that the event occurs is  $p$



<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Mathematics Standard
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Question Bank & Topic Test – Probability
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	35%
<b>Presentation and Submission Guidelines:</b>	You will submit Part A of the task to your classroom teacher either on or before the due date and complete the examination during your allocated timetabled lesson.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below by either Miss Atcheson, Mrs Drayton/Mrs Drake-Brockman or Ms Jamieson.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MS11-8	Solves probability problems involving multistage events
MS11-9	Uses appropriate technology to investigate, organise and interpret information in a range of contexts
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculations

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____



#### Task Description:

##### Part A-15%

You will complete a question bank in your own time. It is required that the question bank is submitted to your class teacher on or before the due date.

Solutions to the question bank are required to be handwritten on separate paper.

##### Part B- 20%

Students will sit a formal topic test in the hall. Time allowed is 50 minutes with 5 minutes reading time.

The assessment task will assess students' knowledge and understanding of course content from the 'Relative Frequency and Probability' topic.

**Note:** Due to the cumulative nature of mathematics, knowledge from earlier Stages is essential.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this topic test: I Can -

- Understand and use the language associated with theoretical probability and relative frequency
- Determine probabilities associated with simple games and experiments
- Use arrays and tree diagrams to determine the outcomes and probabilities for multi-stage experiments
- Solve problems involving simulations or trials of experiments in a variety of contexts
- Solve problems involving probability and/or relative frequency in a variety of contexts

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.





Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>Full marks are awarded for correct answers</li> <li>Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	



## Financial Mathematics

### MS-F1 Money Matters

#### Outcomes

**A student:**

- › represents information in symbolic, graphical and tabular form MS11-2
- › models relevant financial situations using appropriate tools MS11-5
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14

#### Subtopic Focus

The principal focus of this subtopic is to calculate and graph simple interest, manage earnings, wages and taxation, and develop an appropriate budget for a given situation.

Students develop an ability to justify various types of financial decisions which will affect their life now and into the future.













Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.


























## F1.2: Earning and managing money

Students:

- calculate monthly, fortnightly, weekly, daily or hourly pay rates from a given salary, wages involving hourly rates and penalty rates, including situations involving overtime and other special allowances, and earnings based on commission (including commission based on a sliding scale), piecework or royalties ◊    
  - calculate annual leave loading
  - calculate payments based on government allowances and pensions (ACMGM003)
- calculate income tax ◊
  - identify allowable tax deductions    
  - calculate taxable income after allowable tax deductions are taken from gross pay 
  - calculate the Medicare levy (basic levy only)
  - calculate the amount of Pay As You Go (PAYG) tax payable per fortnight or week using current tax scales, and use this to determine if more tax is payable or if a refund is owing after completing a tax return 
- calculate net pay following deductions from income ◊
- use technology to perform financial computations, for example calculating percentage change, calculating tax payable and preparing a wage-sheet ◊  

## F1.3: Budgeting and household expenses

Students:

- interpret and use information about a household's electricity, water or gas usage and related charges and costs from household bills **AAM** ◊  
- plan for the purchase of a car **AAM** ◊  
  - investigate on-road costs for new and used vehicles, including sale price (or loan repayments), registration, insurance and stamp duty at current rates  
  - consider sustainability when choosing a vehicle to purchase, eg fuel consumption rates 
  - calculate and compare the cost of purchasing different vehicles using a spreadsheet  
- plan for the running and maintenance of a car **AAM** ◊  
  - describe the different types of insurance available, including compulsory and non-compulsory third-party insurance, and comprehensive insurance  
  - investigate other running costs associated with ownership of a vehicle, eg cost of servicing, repairs and tyres  
  - calculate and compare the cost of running different vehicles using a spreadsheet  
- prepare a personal budget for a given income, taking into account fixed and discretionary spending (ACMGM004) **AAM** ◊    



<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Mathematics Standard
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Investigation Style Assessment – Money & Budgeting
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	TBC
<b>Weighting:</b>	30%
<b>Presentation and Submission Guidelines:</b>	You will submit your task to your classroom teacher either on or before the due date. There will be no class time allocated to completing this task.
<b>Marking Process:</b>	The assessment will be marked against the marking criteria below. It will be marked by at least two members of the mathematics faculty.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MS11-2	Represents information in symbolic, <u>graphical</u> and tabular form.
MS11-5	<u>Models</u> relevant financial situations using appropriate tools.
MS11-6	Makes predictions about everyday situations based on simple mathematical models.
MS11-9	Uses appropriate technology to investigate, organise and interpret information in a range of contexts.
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculations.

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____



#### Task Description:

##### Buying and Owning a Car

In this investigation you will examine the costs involved in buying and owning a car.

***For the purpose of this assessment it is assumed that you are living with your parents, you pay \$100/week board and living expenses. The expense of buying and running the car will be entirely yours.***

The project consists of the following sections:

**Section 1:** Selecting a suitable car for your needs.

**Section 2:** Calculating your income.

**Section 3:** Paying for your car.

**Section 4:** Costs associated with getting a NSW Driver licence

**Section 5:** Calculate fuel costs

**Section 6:** Determine insurance costs

**Section 7:** Creating a budget.

**Presentation of project:** This project should be completed in the booklet provided. You may be required to take screenshots from suggested websites and these will need to be uploaded to an assignment in Google Classroom.

This is an assessment you will complete in your own time.

You may seek any clarifications about the assessment from your teacher as long as it is **out of class time**. You can do this by attending Maths and Milo tutoring on Monday mornings or by seeking assistance from Miss Thomas during her scheduled SLA periods.

You can get help up **until 3 days prior to submission date**. Expect a 24-48 hour turnaround to receive any feedback.

All working out must be shown to demonstrate your understanding.



**Success Criteria:**

To be successful in this topic test: I Can -

- Apply percentage increase and decrease
- Calculate profit and loss in absolute and percentage terms
- Calculate simple interest (different rates and periods)
- Solve straight-line depreciation problems using  $S = V_0 - Dn$
- Calculate and graph compound interest with a spreadsheet
- Calculate monthly, fortnightly, weekly, daily or hourly pay rates from salary and wages involving penalty rates
- Calculate overtime and special allowances
- Calculate commission (including sliding scale)
- Calculate piecework and royalties
- Calculate annual Leave Loading
- Calculate payments based on government allowances and pensions
- Identify allowable tax deductions
- Calculate taxable income
- Calculate Medicare levy (basic)
- Calculate PAYG tax per week or fortnight, use this to determine tax refund or payable
- Calculate net pay following deductions from income
- Use technology to calculate percentage change, tax payable, preparing wage-sheet
- Interpret household bills
- Investigate on-road costs for purchasing a car (including registration, insurance and stamp duty)
- Compare fuel consumption rates in regards to sustainability
- Use a spreadsheet to calculate and compare the cost of purchasing different cars
- Describe the different types of insurance for cars (including compulsory and non-compulsory third-party insurance and comprehensive insurance)
- Investigate running costs (including servicing, repairs and tyres)
- Use a spreadsheet to calculate and compare the cost of running a vehicle
- Prepare a personal budget taking into account both fixed and discretionary spending

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts. You will be more successful in this topic test if you complete and use the completed summary sheet to assist you.

Marking Guidelines:		Marks
Section	Description	Mark Awarded
1: Selecting a suitable car for your needs	1) Screenshot of car advertisement	/1
	2) Completed table	/2
	a) Part A completed (1)	
	b) Part B completed (1)	
	3) Reason for car choice	/1
4) Stamp duty	a) working towards calculating stamp duty (1)	/2
	b) correctly calculates stamp duty (2)	
		<b>/6</b>
2: Calculating your income	1) Weekly earnings (casual)	/2
	a) calculated earnings for hours worked (1)	
	b) calculated total earnings (1)	
	2) Gross yearly income	/1



	3) Gross yearly income after sick leave	/1
	4) Tax calculated	/1
	5) Weekly earnings (full time)	
	a) calculated earnings for hours worked (1)	
	b) calculated total earnings (1)	/2
	6) Leave loading	
	a) calculated 4 weeks' pay (1)	
	b) calculated 17.5% leave loading (1)	
	c) calculated total holiday pay (1)	/3
	7) Taxable income	/1
	8) Tax calculated	
	a) working towards calculating tax (identification of tax bracket) (1)	
	b) correctly calculates tax (2)	/2
	9) Calculated refund from PAYG tax	/1
	10) Completed table with reasonable advantages and disadvantages	
	1 mark for each advantage (2)	
	1 mark for each disadvantage (2)	/4
		<b>/18</b>
3: Paying for your car	1) Scenario 1	/3
	2) Scenario 2	
	a) Deposit	/1
	b) Amount borrowed	/1
	c) Monthly repayments	/1
	d) Determination of affordability	/1
	e) Justified advantage of higher repayment	/1
	f) Justification of financial decision	/1
		<b>/9</b>
<b>Section</b>	<b>Description</b>	<b>Mark Awarded</b>
4: Cost associated with getting a NSW driver's license	1) Completed table	/7
		<b>/7</b>
5: Calculation of fuel consumption costs	1) Petrol prices	
	a) Distance travelled on litres of petrol	/1
	b) Annual fuel bill	/1
	c) Change of fuel consumption, what does it do?	/1
		<b>/3</b>
6: Determining insurance costs	1) Comprehensive insurance screenshot provided	/1
	2) Compulsory third party insurance screenshot provided	/1
		<b>/2</b>
7: Creating a budget	1) Completed table accurately from previous answers	
	1 mark for cost section completed	
	1 mark for total	/2



	2) Comparison between budget total and yearly net earnings made 1 mark for income table completed 1 mark for expenses table completed 1 mark for explanation	/3
		/5
	<b>Total marks awarded:</b>	<b>/50</b>

## **Buying and Owning a Car**

### **Can you afford to buy a car?**

In this investigation you will examine the costs involved in buying and owning a car.

***For the purpose of this project it is assumed that you are living with your parents, you pay \$100/week board and living expenses. The expense of buying and running the car will be entirely yours.***

The project consists of the following sections:

**Section 1:** Selecting a suitable car for your needs.

**Section 2:** Calculating your income.

**Section 3:** Paying for your car.

**Section 4:** Costs associated with getting a NSW Driver licence

**Section 5:** Calculate fuel costs

**Section 6:** Determine insurance costs

**Section 7:** Creating a budget.

**Presentation of project:** This project should be completed in the booklet provided. You may be required to take screenshots from suggested websites and these will need to be uploaded to an assignment in Google Classroom.

### **Section 1: Selecting a suitable car for your needs (6 marks)**

You are going to choose a car to buy.

Considerations may include:

- The look and appeal
- The amount of km the car has done
- The fuel efficiency



- How you will use the car?
- Manual/ Automatic
- Ease of resale
- Reliability of and condition of car
- The cost, do you think you can afford the car?

1) A popular car sales website is [www.carsales.com.au](http://www.carsales.com.au). Go to this website and choose your car. Take a screenshot of the car advertisement and submit electronically to Google Classroom Assignment.

**Screenshot Titled: "Car Advertisement"**

*No students may intentionally use the same advertisement.*

**(1 mark)**

Digital Submission of Car Advertisement	
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2) Complete the following table, providing information of your chosen car. (2 marks)

Part A	Make & Model	
	Price	
	Auto or manual	
	Colour	
	Amount of km the car has done	
	Business or private use	
Part B	Fuel efficiency	



3) Provide one reason why you chose that car.

(1 mark)

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4) Stamp duty is charged at the following rates:

(2 marks)

- For cars under \$45 000: 3% of the market value
- For cars at or over \$45 000: \$1 350 + 5% of the market value over \$45 000

Calculate the cost of stamp duty for your car.

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**Section 2: Calculating your income**

(18 marks)

You are a casual employee at a department store. As a 16 year old, the award hourly rates are as follows.

		Hourly rate	Hours worked	Earnings
<b>Table A1</b>	Mon - Fri	\$13.25		
	Saturday	\$15.90		
	Sunday	\$18.55		
			<b>Total Earnings</b>	

1) You work 4 hours on Thursday night, 5 hours on Saturday and 4 hours on Sunday. Complete the table above, including a calculation of your total weekly earnings.

(2 marks)

2) You worked 48 weeks out of the year. What is your yearly gross income?

(1 mark)





3) On three Thursdays and one Saturday during the year, you called up sick to work. What will be your yearly gross income now? **(1 mark)**

4) Below are the current income tax rates. Calculate how much tax you will pay for the year.

**Resident tax rates 2017-18**

Taxable income	Tax on this income
0 – \$18,200	Nil
\$18,201 – \$37,000	19c for each \$1 over \$18,200
\$37,001 – \$87,000	\$3,572 plus 32.5c for each \$1 over \$37,000
\$87,001 – \$180,000	\$19,822 plus 37c for each \$1 over \$87,000
\$180,001 and over	\$54,232 plus 45c for each \$1 over \$180,000

**(1 mark)**

It is quite possible that should you choose a car with a finance plan, that you will still be paying off your car when you have left school. Say you decide to continue in the same job after school for a year. You are 18 years old, employed there full-time and your rates are as follows.

		Hourly rate	Hours worked	Earnings
<b>Table A2</b>	Mon - Fri	\$14.65		
	Saturday	\$18.31		
	Sunday	\$24.17		
			<b>Total Earnings</b>	



5) You worked 8 hours each day on Monday-Thursday, 8 hours on Saturday and no hours on Sunday. Complete the table above, including a calculation of your total weekly earnings.  
**(2 marks)**

6) As a full-time employee if you take your 4 weeks holiday leave you will earn leave loading. Leave loading is calculated at  $17\frac{1}{2}\%$  of 4 weeks pay. Calculate the total holiday pay.  
**(3 marks)**

4 weeks pay: \_\_\_\_\_

17.5% leave loading: \_\_\_\_\_

Total holiday pay: \_\_\_\_\_

7) You claim \$200 in uniform costs. Assuming your annual pay is \$32,425.  
 What is your taxable income? **(1 mark)**

\_\_\_\_\_

\_\_\_\_\_

8) Use the tax table from the previous page. How much tax are you required to pay for the year? **(2 marks)**

\_\_\_\_\_

\_\_\_\_\_

9) You are due to receive a refund. You paid \$65 per week in PAYG Tax. How much will this refund be? **(1 mark)**

\_\_\_\_\_

\_\_\_\_\_

As an example only, if you were 18 and working **Casual** instead of **Full-time**, you would be earning \$18.74 on a normal day instead of \$14.99.

10) What are the advantages and disadvantages of working Full-time vs. Casual? **(4 marks)**

	Full time	Casual
Advantages	•	•



Disadvantages	•	•
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**Section 3: Paying for your car**

**(9 marks)**

There are different ways that you can pay for a car. You can save up and pay for it outright, or you can get a loan from a bank. You need to compare both of these options in order to make a decision.

- 1) **Scenario 1- Saving up and buying outright:** Decide how much you will set aside per week. How long will it take for you to save up for your car? Use the weekly wages for a 18 year old that you calculated in Section 2 (question 5).

**(3 marks)**

Weekly Income	
How much are you going to set aside from your weekly pay to save for the car? <i>(This will be your decision)</i>	
Time taken to save for car <i>(cost of car divided by weekly savings)</i>	

2) **Scenario 2- Personal bank loan:**

You have given the car dealer a 20% deposit.

- a) Calculate the deposit you will pay for the car. Show your working. **(1 mark)**

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- b) You will have to borrow the remaining amount. Calculate the value of the amount you will borrow. Show your working **(1 mark)**

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- c) 25% of your annual income goes towards paying your car. What are your monthly repayments. Show your working. **(1 mark)**



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d) If the loan requires you to pay \$450 per month, can you afford this? How much more/less?  
**(1 mark)**

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e) Name one advantage of paying a higher repayment than necessary off your loan each month?  
**(1 mark)**

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f) Using the information calculated above, which scenario would you choose to buy your car?  
 saving for it     personal loan    Why?    **(1 marks)**

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#### **Section 4: Costs associated with getting a NSW Driver's licence**

**(7 marks)**

1) You will also need to get your **provisional driver's licence (P1)** if you wish to drive around in the car of your choice. There are various costs associated with this *including the cost of driving lessons*. Firstly, go to [www.rta.com.au](http://www.rta.com.au) to list the steps in sequential order and costs for each stage of getting your licence and record them in the table below.

<b>Steps for full drivers license</b>	<b>Cost</b>	
1. a) Drivers knowledge test	a)	<b>(1 mark)</b>
b) License fee	b)	<b>(1 mark)</b>
2. Driving lessons: Use the following website to find the cost of driving lessons. <a href="http://www.ltrent.com.au">www.ltrent.com.au</a>		<b>(1 mark)</b>
3. Hazard perception test		<b>(1 mark)</b>



4. a) Driving test for P1 license	a)	(1 mark)
b) License fee	b)	(1 mark)
Total cost		(1 mark)

**Section 5: Calculation of fuel consumption costs** (3 marks)

Assume your fuel consumption is 9L/100km

- a) How far can your car travel on 48L of petrol? Round to the nearest km. Show your working.  
(1 mark)

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- b) On average, you use 30L of petrol per week and the price of petrol is \$1.28 per litre. What is your annual fuel bill? (assuming you drive 52 weeks per year)  
(1 mark)

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- c) If your cars fuel consumption was 9.5 L/100km, how would this change your previous calculation?  
(1 mark)

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**Section 6: Determine insurance costs** (2 marks)

**Comprehensive car insurance**

Getting comprehensive insurance is important because if you have an accident, not only is your vehicle covered, but so is any other vehicle or property involved in the accident. You are going to get an online quote for comprehensive insurance.

Go to [www.nrma.com.au](http://www.nrma.com.au) and fill in the details to get a quote for comprehensive car insurance.

Note: you may have to put your birth year in as 2004 in order to get a quote. You can make up any other details you are not sure of. Upload a screenshot of your quote to Google Classroom assignment.

**Screenshot Titled: "Comprehensive car Insurance"** (1 mark)



Digital Submission of Comprehensive car insurance	
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**Compulsory Third Party (CPT) insurance**

You also have to get Compulsory Third Party (CTP) insurance. This covers the medical costs of anyone involved in an accident. If you don't have CTP insurance, you are not allowed to drive a car. Go to [www.nrma.com.au](http://www.nrma.com.au) , get a quote for CTP insurance and upload a screenshot of your quote to Google Classroom assignment.

**Screenshot Titled: "Third-party Insurance Quote" (1 mark)**

Digital Submission of Third party insurance	
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**Section 7: Creating a budget (5 marks)**

Costs for a car include vehicle registration which for your car is \$339 per year, and the cost of servicing the car and parts, which for your car is \$600 per year.

*These have been included in the table below. It has also been assumed that you will be paying off a car loan. These repayments have also been added to the table.*

- 1) Fill out the following table for the cost of running your car per year.

*All amounts given as YEARLY totals*

**(2 marks)**

	<b>Cost</b>
Stamp duty (section 1)	
Comprehensive insurance (section 6)	
CTP insurance (section 6)	
Petrol cost	



(section 5)	
Registration	\$339
Driving lessons (section 4)	
Service and parts	\$600
Car repayments (450 x 12)	\$5400
<b>Total</b>	

- 2) Compare the amount of money you need in your budget for car costs versus your net earnings.  
Complete the table below: **(2 marks)**

**Income:**

Annual earnings	
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**Expenses:**

Total yearly budget for car	
Assumed living costs (\$100 per week)	\$5200

Can you afford the ongoing costs of your car? Explain?

**(1 mark)**

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## Algebra

### MS-A1 Formulae and Equations

#### Outcomes

##### A student:

- › uses algebraic and graphical techniques to compare alternative solutions to contextual problems MS11-1
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14

#### Subtopic Focus

The principal focus of this subtopic is to provide a solid foundation in algebraic skills, including finding solutions to a variety of equations in work-related and everyday contexts.

Students develop awareness of the applicability of algebra in their approach to everyday life.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

#### Content

Students:

- review substitution of numerical values into linear and non-linear algebraic expressions and equations ◊
  - review evaluating the subject of a formula, given the value of other pronumerals in the formula
  - change the subject of a formula
  - solve problems involving formulae, including calculating distance, speed and time (with change of units of measurement as required) or calculating stopping distances of vehicles using a suitable formula **AAM** 📐
- develop and solve linear equations, including those derived from substituting values into a formula, or those developed from a word description **AAM** ◊ ⚙️ 🗣️ 📐
- calculate and interpret blood alcohol content (BAC) based on drink consumption and body weight **AAM** 📐 🗣️
  - use formulae, both in word form and algebraic form, to calculate an estimate for blood alcohol content (*BAC*), including  $BAC_{\text{Male}} = \frac{10N-7.5H}{6.8M}$  and  $BAC_{\text{Female}} = \frac{10N-7.5H}{5.5M}$  where *N* is the number of standard drinks consumed, *H* is the number of hours of drinking, and *M* is the person's weight in kilograms
  - determine the number of hours required for a person to stop consuming alcohol in order to reach zero BAC, eg using the formula  $\text{time} = \frac{BAC}{0.015}$
  - describe limitations of methods estimating BAC





- calculate required medication dosages for children and adults from packets, given age or weight, using Fried's, Young's or Clark's formula as appropriate **AAM**
- Fried's formula: Dosage for children 1 – 2 years =  $\frac{\text{age (in months)} \times \text{adult dosage}}{150}$
- Young's formula: Dosage for children 1 – 12 years =  $\frac{\text{age of child (in years)} \times \text{adult dosage}}{\text{age of child (in years)} + 12}$
- Clark's formula: Dosage =  $\frac{\text{weight in kg} \times \text{adult dosage}}{70}$

## MS-A2 Linear Relationships

### Outcomes

#### A student:

- › uses algebraic and graphical techniques to compare alternative solutions to contextual problems MS11-1
- › represents information in symbolic, graphical and tabular form MS11-2
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-1, MALS6-7, MALS6-8, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is the graphing and interpretation of practical linear and direct variation relationships.

Students develop fluency in the graphical approach to linear modelling and its representativeness in common facets of their life.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.



## Content

Students:

- model, analyse and solve problems involving linear relationships, including constructing a straight-line graph and interpreting features of a straight-line graph, including the gradient and intercepts **AAM**
  - recognise that a direct variation relationship produces a straight-line graph
  - determine a direct variation relationship from a written description, a straight-line graph passing through the origin, or a linear function in the form  $y = mx$
  - review the linear function  $y = mx + c$  and understand the geometrical significance of  $m$  and  $c$
  - recognise the gradient of a direct variation graph as the constant of variation **AAM**
  - construct straight-line graphs both with and without the aid of technology (ACMGM040)
- construct and analyse a linear model, graphically or algebraically, to solve practical direct variation problems, including the cost of filling a car with fuel or a currency conversion graph **AAM**
  - identify and evaluate the limitations of a linear model in a practical context

## Topic: Measurement

### Outcomes

**A student:**

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Topic Focus

Measurement involves the application of knowledge, skills and understanding of numbers and geometry to quantify and solve problems in practical situations.

Knowledge of measurement enables completion of daily tasks such as making time estimations, measuring medicine, finding weights and understanding areas of materials or substances.

Study of measurement is important in developing students' ability to make reasonable estimates for quantities, apply appropriate levels of accuracy to particular situations, and apply understanding of aspects of measurement such as length, area, volume and similarity to a variety of problems.



## MS-M1 Applications of Measurement

### Outcomes

#### A student:

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to develop an awareness of the inherent error in measurements and to become competent in solving practical problems involving energy, mass, perimeter, area, volume and capacity.



Students develop knowledge of the concepts of measurement and demonstrate fluency with its application.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

## Content

### M1.1: Practicalities of measurement





Students:

- review the use of different metric units of measurement including units of area, take measurements, and calculate conversions between common units of measurement, for example kilometres to metres or litres to millilitres  $\diamond$
- calculate the absolute error of a reported measurement using  $\text{Absolute error} = \frac{1}{2} \times \text{Precision}$  and state the corresponding limits of accuracy  $\diamond$ 
  - find the limits of accuracy as given by:  
Upper bound = Measurement + Absolute error  
Lower bound = Measurement – Absolute error
  - investigate types of errors, eg human error or device limitations 
  - calculate the percentage error of a reported measurement using  
$$\text{Percentage error} = \frac{\text{Absolute error}}{\text{Measurement}} \times 100\%$$
- use standard form and standard metric prefixes in the context of measurement, with and without a required number of significant figures  $\diamond$  
  - standard prefixes include nano-, micro-, milli-, centi-, kilo-, mega-, giga- and tera-







### M1.2: Perimeter, area and volume

Students:

- review and extend how to solve practical problems requiring the calculation of perimeters and areas of triangles, rectangles, parallelograms, trapezia, circles, sectors of circles and composite shapes  $\diamond$   
  - review the use of Pythagoras' theorem to solve problems involving right-angled triangles
  - review the use of a scale factor to find unknown lengths in similar figures
- solve problems involving surface area of solids including prisms, cylinders, spheres and composite solids
- solve problems involving volume and capacity of solids including prisms, cylinders, spheres, pyramids and composite solids
  - convert between units of volume and capacity
- calculate perimeters and areas of irregularly shaped blocks of land by dissection into regular shapes including triangles and trapezia **AAM** 
  - derive the Trapezoidal rule for a single application,  $A \approx \frac{h}{2}(d_f + d_l)$
  - use the Trapezoidal rule to solve a variety of practical problems with and without technology, eg the volume of water in a swimming pool 
- solve problems involving perimeters, area, surface area, volumes and capacity in a variety of contexts **AAM**

### M1.3: Units of energy and mass

Students:

- review the use of metric units of mass in solving problems, including grams, kilograms and tonnes, their abbreviations and how to convert between them  $\diamond$  
- use metric units of energy to solve problems, including calories, kilocalories, joules and kilojoules, their abbreviations and how to convert between them  $\diamond$
- use units of energy and mass to solve problems related to food and nutrition, including calories  $\diamond$  
- use units of energy to solve problems involving the amount of energy expended in activities, for example kilojoules  $\diamond$  
- use units of energy to solve problems involving the consumption of electricity, for example kilowatt hours, and investigate common appliances in terms of their energy consumption **AAM**  $\diamond$  





## MS-M2 Working with Time

### Outcomes

#### A student:

- › solves problems involving quantity measurement, including accuracy and the choice of relevant units MS11-3
- › performs calculations in relation to two-dimensional and three-dimensional figures MS11-4
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-3, MALS6-4, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to understand concepts related to locations on Earth's surface and calculation of time differences.

Students develop awareness of being a global citizen and the relationships between different countries in terms of location, distance and time.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

Students:

- indicate positions on the Earth's surface ◊
  - locate points on Earth's surface using latitude, longitude or position coordinates with a globe, an atlas and digital technologies, eg a smartphone or GPS device 📱
  - understand and use the link between longitude and time to find time differences
- calculate times and time differences around the world **AAM** ◊
  - review using units of time, converting between 12-hour and 24-hour clocks and calculating time intervals
  - understand and use the link between longitude and time to find time differences
  - solve problems involving time zones in Australia and in neighbouring nations, making any necessary allowances for daylight saving (ACMEM163) 🌐 🕒 🌐
  - solve problems involving Coordinated Universal Time (UTC), and the International Date Line (IDL)
  - find time differences between two places on Earth using recognised international time zones (ACMEM165) 🌐 🕒
  - review how to interpret timetables, eg bus, train and ferry timetables, and use them to solve problems 🕒 🕒
  - solve practical problems, eg travelling east and west, incorporating time zones, or internet and phone usage across time zones, or the timing of events broadcast live from states of countries between different time zones 🌐 📱 🌐 🕒



## MS-F1 Money Matters

### Outcomes

#### A student:

- › represents information in symbolic, graphical and tabular form MS11-2
- › models relevant financial situations using appropriate tools MS11-5
- › makes predictions about everyday situations based on simple mathematical models MS11-6
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-5, MALS6-6, MALS6-7, MALS6-8, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is to calculate and graph simple interest, manage earnings, wages and taxation, and develop an appropriate budget for a given situation.

Students develop an ability to justify various types of financial decisions which will affect their life now and into the future.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

#### F1.1: Interest and depreciation

Students:

- apply percentage increase or decrease in various contexts, eg calculating the goods and services tax (GST) payable on a range of goods and services, and calculating profit or loss in absolute and percentage terms  $\diamond$
- calculate simple interest for different rates and periods (ACMEM064)  $\diamond$ 
  - use technology or otherwise to compare simple interest graphs for different rates and periods
- calculate the depreciation of an asset using the straight-line method as an application of the simple interest formula **AAM**  $\diamond$ 
  - use  $S = V_0 - Dn$ , where  $S$  is the salvage value of the asset after  $n$  periods,  $V_0$  is the initial value of the asset,  $D$  is the amount of depreciation per period, and  $n$  is the number of periods
- use a spreadsheet to calculate and graph compound interest as a recurrence relation involving repeated applications of simple interest **AAM**  $\diamond$



## MS-S1 Data Analysis

### Outcomes

#### A student:

- › represents information in symbolic, graphical and tabular form MS11-2
- › develops and carries out simple statistical processes to answer questions posed MS11-7
- › uses appropriate technology to investigate, organise and interpret information in a range of contexts MS11-9
- › justifies a response to a given problem using appropriate mathematical terminology and/or calculations MS11-10

**Related Life Skills outcomes:** MALS6-2, MALS6-9, MALS6-13, MALS6-14

### Subtopic Focus

The principal focus of this subtopic is planning and management of data collection, classification and representation of data, calculation of summary statistics for single datasets and their use in the interpretation of data.




Students develop awareness of the importance of statistical processes and inquiry in society.

Within this subtopic, schools have the opportunity to identify areas of Stage 5 content which may need to be reviewed to meet the needs of students.

### Content

#### **S1.1: Classifying and representing data (grouped and ungrouped)**

Students:

- describe and use appropriate data collection methods for a population or samples 
  - investigate whether a sample obtained from a population may or may not be representative of the population by considering different kinds of sampling methods: systematic sampling, self-selected sampling, capture-recapture, simple random sampling and stratified sampling
  - investigate the advantages and disadvantages of each type of sampling
  - describe the potential faults in the design and practicalities of data collection processes, eg surveys, experiments and observational studies, misunderstandings and misrepresentations, including examples from the media
- classify data relating to a single random variable 
  - classify a categorical variable as either ordinal, eg income level (low, medium, high) or nominal, eg place of birth (Australia, overseas)
  - classify a numerical variable as either discrete, eg the number of rooms in a house, or continuous, eg the temperature in degrees Celsius



- review how to organise and display data into appropriate tabular and/or graphical representations **AAM**
  - display categorical data in tables and, as appropriate, in both bar charts or Pareto charts
  - display numerical data as frequency distribution tables and histograms, cumulative frequency distribution tables and graphs, dot plots and stem and leaf plots (including back-to-back where comparing two datasets)
  - construct and interpret tables and graphs related to real-world contexts, including: motor vehicle safety including driver behaviour, accident statistics, blood alcohol content over time, running costs of a motor vehicle, costs of purchase and insurance, vehicle depreciation, rainfall, hourly temperature, household and personal water usage
- interpret and compare data by considering it in tabular and/or graphical representations **AAM**
  - choose appropriate tabular and/or graphical representations to enable comparisons
  - compare the suitability of different methods of data presentation in real-world contexts, including their visual appeal, eg a heat map to illustrate climate change data or the median house prices across suburbs

<b>Student Name:</b>	
<b>Subject/Course:</b>	Mathematics Standard 2
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Exam
<b>Date Issued:</b>	TBC
<b>Date and Time Due:</b>	During the preliminary examination period. A timetable will be available two weeks before the examination period begins.
<b>Weighting:</b>	35%
<b>Class Time Allocated:</b>	No class time will be allocated.
<b>Presentation and Submission Guidelines:</b>	You will complete the examination during the allocated Preliminary Examination period.
<b>Marking Process:</b>	The assessment will be marked by either Miss Atcheson, Mrs Drayton, Mrs Drake-Brockman or Ms Jamieson using a format similar to that used in the HSC examination.





#### Outcomes Assessed:

Syllabus Code	Syllabus Description
MS11-1	Uses algebraic and graphical techniques to compare alternative solutions to contextual problems
MS11-3	Solves problems involving quantity measurement, including accuracy and the choice of relevant units
MS11-4	Performs calculations in relation to two-dimensional figures
MS11-5	<u>Models</u> relevant financial situations using appropriate tools
MS11-6	Makes predictions about everyday situations based on simple mathematical methods
MS11-8	Solves probability problems involving multi-stage events
MS11-10	Justifies a response to a given problem using appropriate mathematical terminology and/or calculation.

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

#### Task Description:

You will sit a formal Preliminary Examination in the hall. Time allowed is 2 hours with 10 minutes reading time. You will be provided with the HSC reference sheet for use within the examination.

The assessment task will assess students' knowledge and understanding of all topics learnt so far in the preliminary course.

**Permissible calculators: Only those listed on the NESA website allowed – approved calculators list for Standard 1 & 2 HSC (Seek clarification from Head Teacher Mathematics if unsure)**

#### Success Criteria:

To be successful in this examination: I can -

- Use algebraic and graphical to compare alternative solutions to contextual problems
- Represent information in symbolic, graphical and tabular form
- Solve problems involving quantity measurement, including accuracy and the choice of relevant units
- Model relevant financial situations using appropriate tools
- Make predictions about everyday situations based on simple mathematical models
- Solve problems probability problems involving multistage events
- Justify a response to a given problem using appropriate mathematical terminology and/or terminology

It is important that you are showing all your working out, as marks can be awarded for showing understanding of concepts.



Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>• Multiple choice questions</li> </ul>	1 mark each
<ul style="list-style-type: none"> <li>• Full marks are awarded for correct answers</li> <li>• Marks will also be awarded for working towards or making significant progress towards calculating the correct answer.</li> </ul>	
<p>Common Grade Descriptors will also be used to determine students' success with this assessment task.</p> <p><b>Grade A</b> The student demonstrates extensive knowledge of content and understanding of course <u>concepts, and</u> applies highly developed skills and processes in a wide variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</p> <p><b>Grade B</b> The student demonstrates thorough knowledge of content and understanding of course <u>concepts, and</u> applies well-developed skills and processes in a variety of contexts. In <u>addition</u> the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</p> <p><b>Grade C</b> The student demonstrates sound knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in a range of familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</p> <p><b>Grade D</b> The student demonstrates a basic knowledge of content and understanding of course <u>concepts, and</u> applies skills and processes in some familiar contexts. In <u>addition</u> the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</p> <p><b>Grade E</b> The student demonstrates an elementary knowledge of content and understanding of course <u>concepts, and</u> applies some skills and processes with guidance. In <u>addition</u> the student demonstrates elementary skills in recounting information and communicating ideas.</p>	



# Modern History

## The structure of Modern History

	Preliminary	HSC	
60 Indicative Hours	<p><b>Investigating Modern History</b></p> <ul style="list-style-type: none"> <li>The Nature of Modern History</li> <li>Case Studies</li> </ul> <p><i>Each case study should be a minimum of 10 indicative hours.</i></p> <p>Students undertake:</p> <ul style="list-style-type: none"> <li>At least ONE option from 'The Nature of Modern History', AND</li> <li>At least TWO case studies.</li> </ul>	<p><b>Core Study: Power and Authority in the Modern World 1919 - 1946</b></p>	30 Indicative Hours
20 Indicative Hours	<p><b>Historical Investigation</b></p> <p>The historical investigation is designed to further develop relevant investigative, research and presentation skills.</p>	<p><b>National Studies</b></p> <p>Students are required to study at least ONE non-European/Western topic selected from the following list:</p> <ul style="list-style-type: none"> <li>China 1927-1949</li> <li>India 1942-1984</li> <li>Indonesia 1945-2005</li> <li>Japan 1904-1937</li> </ul>	30 Indicative Hours
40 Indicative Hours	<p><b>The Shaping of the Modern World</b></p> <p>Students investigate forces and ideas that shaped the modern world through a study of key events and developments and the meaning of modernity. At least ONE study from 'The Shaping of the Modern World' should be undertaken.</p>	<p><b>Peace and Conflict</b></p> <p>Students are required to study at least ONE non-European/Western topic selected from the following list:</p> <ul style="list-style-type: none"> <li>Conflict in Indochina 1954-1979</li> <li>Conflict in the Pacific 1937-1951</li> <li>Conflict in the Gulf 1980-2011</li> <li>The Arab-Israeli Conflict 1948-1996</li> </ul>	30 Indicative Hours
		<p><b>Change in the Modern World</b></p> <p>Students are required to study at least ONE non-European/Western topic selected from the following list:</p> <ul style="list-style-type: none"> <li>Pro-democracy Movement in Burma 1945-2010</li> <li>The Cultural Revolution to Tiananmen Square 1966-1989</li> <li>Apartheid in South Africa 1980-1994</li> </ul>	30 Indicative Hours

## Objectives and Outcomes

### Knowledge and Understanding

<p><b>Objectives</b> Students:</p> <ul style="list-style-type: none"> <li>• Develop knowledge and understanding of a range of features, people, ideas, movements, events and developments of the modern world in their historical context.</li> <li>• Develop an understanding of continuity and change over time.</li> </ul>	
<p><b>Year 11 course outcomes</b> A student:</p>	<p><b>Year 12 course outcomes</b> A student:</p>
<p><b>MH11-1</b> describes the nature of continuity and change in the modern world</p> <p><b>MH11-2</b> proposes ideas about the varying causes and effects of events and developments</p> <p><b>MH11-3</b> analyses the role of historical features, individuals, groups and ideas in shaping the past</p> <p><b>MH11-4</b> accounts for the different perspectives of individuals and groups</p> <p><b>MH11-5</b> examines the significance of historical features, people, ideas, movements, events and developments of the modern world</p>	<p><b>MH12-1</b> accounts for the nature of continuity and change in the modern world</p> <p><b>MH12-2</b> proposes arguments about the varying causes and effects of events and developments</p> <p><b>MH12-3</b> evaluates the role of historical features, individuals, groups and ideas in shaping the past</p> <p><b>MH12-4</b> analyses the different perspectives of individuals and groups in their historical context</p> <p><b>MH12-5</b> assesses the significance of historical features, people, ideas, movements, events and developments of the modern world</p>

### Skills

<p><b>Objectives</b> Students:</p> <ul style="list-style-type: none"> <li>• Undertake the process of historical inquiry</li> <li>• Use historical concepts and skills to examine the modern past</li> <li>• Communicate an understanding of history, sources and evidence, and historical interpretations.</li> </ul>	
<p><b>Year 11 course outcomes</b> A student:</p>	<p><b>Year 12 course outcomes</b> A student:</p>
<p><b>MH11-6</b> analyses and interprets different types of sources for evidence to support an historical account or argument</p> <p><b>MH11-7</b> discusses and evaluates differing interpretations and representations of the past</p> <p><b>MH11-8</b> plans and conducts historical investigations and presents reasoned</p>	<p><b>MH12-6</b> analyses and interprets different types of sources for evidence to support an historical account or argument</p> <p><b>MH12-7</b> discusses and evaluates differing interpretations and representations of the past</p> <p><b>MH12-8</b> plans and conducts historical investigations and presents reasoned</p>

<p>conclusions, using relevant evidence from a range of sources</p> <p><b>MH11-9</b> communicates historical understanding, using historical knowledge, concepts and terms, in appropriate and well-structured forms</p> <p><b>MH11-10</b> discusses contemporary methods and issues involved in the investigation of modern history</p>	<p>conclusions, using relevant evidence from a range of sources</p> <p><b>MH12-9</b> communicates historical understanding, using historical knowledge, concepts and terms, in appropriate and well-structured forms</p>
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## Values and Attitudes

<p><b>Objectives</b> Students:</p> <ul style="list-style-type: none"> <li>• Appreciate the influence of past on the present and the future</li> <li>• Value the contribution of the study of Modern History to lifelong learning, and active and informed citizenship.</li> </ul>
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**Outcomes** are applicable to all topics. Some may be more relevant to a particular topic than others. Outcomes may be examined. Each topic's **themes and challenges** should be integrated into the study of the topic, and they may be examined.

## Assessment Schedule

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Source Analysis Test	Historical Investigation	Preliminary Examination
		<b>Date:</b> Term 1, Week 11	<b>Date:</b> Term 2, Week 10	<b>Date:</b> Term 3, Week 9/10
		<b>Outcomes:</b> 11-1, 11-3, 11-6	<b>Outcomes:</b> 11-1, 11-7, 11-8, 11-10	<b>Outcomes:</b> 11-2, 11-4, 11-5, 11-9
TASK WEIGHTINGS				
Knowledge and understanding of content	40%	20%		20%
Historical skills in the analysis and evaluation of sources and interpretations	20%	10%	10%	
Historical inquiry and research	20%		20%	
Communication of historical understanding in appropriate forms	20%		10%	10%
<b>Total</b>		30%	40%	30%

### Outcomes

#### A student:

- MH11-1 describes the nature of continuity and change in the modern world
- MH11-2 proposes ideas about the varying causes and effects of events and developments
- MH11-3 analyses the role of historical features, individuals, groups and ideas in shaping the past
- MH11-4 accounts for the different perspectives of individuals and groups
- MH11-5 examines the significance of historical features, people, ideas, movements, events and developments of the modern world
- MH11-6 analyses and interprets different types of sources for evidence to support an historical account or argument
- MH11-7 discusses and evaluates differing interpretations and representations of the past
- MH11-8 plans and conducts historical investigations and presents reasoned conclusions, using relevant evidence from a range of sources
- MH11-9 communicates historical understanding, using historical knowledge, concepts and terms, in appropriate and well-structured forms
- MH11-10 discusses contemporary methods and issues involved in the investigation of modern history

## Scope and Sequence

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Term 1	<b>Unit 1: The Shaping of the Modern World</b>									
	World War I									
Term 2	<b>Unit 2: The Nature of Modern History: Case Study B</b>									
	The Nature of Modern History					Case Study B				
Term 3	<b>Unit 3: Case Study A</b>									
	The American Civil War									



## Topic 1: The Shaping of the Modern World WWI

### Content Focus:

Students investigate developments of World War I and its role in the shaping of the modern world. The Historical concepts and skills content is to be integrated as appropriate.

### Content

Students investigate:

- the historical context, including:
  - the influence of nationalism, imperialism, militarism and alliances on Great Power rivalry by the end of the 19th century 🏛️
- the nature of World War I, including:
  - the outbreak of war in 1914, the Western and Eastern fronts, and why it became the world's first global conflict 🏛️ 🌐
  - the varying experiences of soldiers in key battles, eg Verdun, the Somme, Passchendaele, Tannenberg, Beersheba 🗡️
  - the changing nature of war to 1918: scientific and industrial developments in weaponry, the mechanisation of modern warfare, advances in medicine and communications 🎓
  - the impact of the war on civilians, including women's lives and the changing role of women (ACHMH064) 🌐 🗡️
  - the scale of recruitment, conscription, censorship and propaganda in World War I 🌐 📰
  - an overview of the reasons for the Allied victory
  - the effects of World War I in giving rise to the Russian Revolution 🌐
  - the idea of 'total war', the end of 'empire', and World War I as 'the war to end all wars' ⚙️
- the nature and legacy of World War I and its influence on modernity ⚙️ 🏛️ 🌐

## Preliminary Modern History - The Shaping of the Modern World WWI

Skills – I Can:	Beginning <i>Heard of it</i>	Consolidate <i>Know it</i>	Established <i>Can apply it</i>	Expert <i>Can teach it</i>
<b>The Historical Context</b>				
Discuss the influence of nationalism, imperialism, militarism and alliances on Great Power rivalry by the end of the 19 <sup>th</sup> century.				
<b>The Nature of World War I</b>				
Describe the outbreak of war in 1914, the Western and Eastern fronts, and why it became the world's first global conflict.				
Compare the varying experiences of soldiers in key battles, e.g. Verdun, the Somme, Passchendaele, Tannenberg, Beersheba				
Discuss the changing nature of war to 1918: scientific and industrial development in weaponry, the mechanisation of modern warfare, advances in medicine and communications.				
Discuss the impact of the war on civilians, including women's lives and the changing role of women				
Describe the scale of recruitment, conscription, censorship and propaganda in World War I				
Provide an overview of the reasons for the Allied victory				
Evaluate the effects of World War I in giving rise to the Russian Revolution				
Discuss the idea of 'total war', the end of 'empire', and World War I as 'the war to end all wars'				
Explain the nature and legacy of World War I and its influence on modernity				

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Modern History
<b>Teacher:</b>	Mr Brent Williams
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Source Analysis Topic Test
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1, Week 11
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	1 class period
<b>Presentation and Submission Guidelines:</b>	Complete under test conditions during class period allocated
<b>Marking Process:</b>	Marked by Mr Williams using marking criteria



<b>Outcomes Assessed:</b>	
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<b>Syllabus Code</b>	<b>Syllabus Description</b>
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MH11-1	Describes the nature of continuity and change in the modern world
MH11-3	Analyses the role of historical features, individuals, groups and ideas in shaping the past
MH11-6	Analyses and interprets different types of sources for evidence to support an historical account or argument

## Success Criteria

I will be successful if I can:

- Successfully describe the key features of a range of historical sources
- Link ideas within sources to my own knowledge
- Effectively compose a response that addresses the usefulness of a source linked to its reliability and perspective
- Compose an extended response demonstrating my understanding of a key historical theme

## Topic 2: The Nature of Modern History: The Construction of Modern History

### Content Focus:

Students investigate methods and issues associated with constructing accounts about the past. The Historical concepts and skills content is to be integrated as appropriate.

### Content

Students investigate:

- an overview of different types of histories, including narrative history, biography, social and cultural history 🖱️🌐📖
- the role of evidence, interpretation and perspective in the construction of historical accounts ⚙️🖱️🌐📖
- problems associated with the construction of modern histories: the abundance of documentary material, the incomplete nature of evidence and political controls on access to source materials, including classified records 🖱️⚙️⚖️🖱️🌐📖
- the role of selectivity, emphasis and omission in the construction of historical accounts ⚙️🖱️🌐📖

**Preliminary Modern History - The Nature of Modern History: The Construction of Modern Histories**

Skills – I Can:	Beginning <i>Heard of it</i>	Consolidate <i>Know it</i>	Established <i>Can apply it</i>	Expert <i>Can teach it</i>
Provide an overview of different types of histories, including narrative history, biography, social and cultural history				
Explain the role of evidence, interpretation and perspective in the construction of historical accounts				
Discuss problems associated with the construction of modern histories: the abundance of documentary material, the incomplete nature of evidence and political controls on access to source materials, including classified reports				
Discuss the role of selectivity, emphasis and omission in the construction of historical accounts				



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Modern History
<b>Teacher:</b>	Mr Brent Williams
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Historical Investigation
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 2, Week 10
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	8 periods of class time given for this task
<b>Presentation and Submission Guidelines:</b>	Task to be submitted via google classroom by midnight of due date. Task must be run through google plagiarism checker before submission.
<b>Marking Process:</b>	Mr Williams will mark based on marking criteria provided

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MH11-1	Describes the nature and continuity and change in the modern world
MH11-7	Discusses and evaluates differing interpretations and representations of the past
MH11-8	Plans and conducts historical investigations and presents reasoned conclusions, using relevant evidence from a range of sources
MH11-10	Discusses contemporary methods and issues involved in the investigation of modern history

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____

### **Task Description:**

In class you have investigated methods and issues which relate to the study of the modern world. The Historical Investigation presents an opportunity for you to further develop relevant investigative, research and presentation skills. You are encouraged to select an area of interest from modern world history to investigate.

#### **Task description**

You are to select an area of interest, from the modern period, which you will investigate and research. You will submit your proposal, extended response and source analysis in electronic form via google classroom. When selecting a topic, take into account the availability of information and a variety of sources. The investigation must not overlap with or duplicate significantly any topic to be attempted in the Year 11 or 12 Modern History courses. This should be checked with your teacher.

#### **Part 1 – Topic Proposal**

You will complete the attached scaffold, which will formally document your topic of investigation, focus question, supplementary questions for your research and why you chose the topic. This will be discussed during lessons with your teacher

#### **Part 2 – Extended Response (approx. 1000 words)**

Your extended response will answer your focus question in approximately 1000 words (roughly 2 typed pages). You should refer to sources and supplementary information from sources to strengthen your response. Your response should be referenced throughout either through footnoting or in-text and a reference list in alphabetical order attached at the end.

#### **Part 3 – Source Analysis (3 sources – 400 – 600 words approx.)**

This section requires students to analyse in detail three (3) sources that they will rely upon in their investigation. At least one source should be primary and at least one source should be secondary. In this section the student shall:

- include a brief explanation on the nature of the sources that they have selected for detailed analysis, including an explanation of the relevance of that information; and
- with reference to the origins, purpose and content, the student should analyse the value and limitations of each source in relation to the investigation.

### **Success Criteria:**

You will be assessed on how well you:

- conduct an historical investigation and present reasoned conclusions, using evidence
- analyse and interpret a range of sources
- reflect on the historical investigation process
- communicate a logical, structured and cohesive response, using historical knowledge, concepts and terms.

**Modern History – Year 11**  
**Historical Investigation: Topic Proposal**

<b>Topic Chosen</b> All topics must be approved by your teacher	
<b>Focus Question</b> Must begin with one of the following key terms: Assess, Explain or Evaluate	
<b>Supplementary questions</b> To guide your research in answering your focus question	1  2  3  4
<b>Why did you choose these supplementary questions?</b>	
<b>Something interesting you</b>	



have found about your topic through your preliminary investigations	
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**Modern History – Year 11**

**Historical Investigation Submission Checklist**

- I have chosen a topic that does not clash with the Preliminary or HSC course
- I have completed my Topic Proposal document outlining my focus question, supplementary questions and reasons for my choice and discussed this with my teacher.
- My question is written at the beginning of my extended response and begins with either assess, explain or evaluate.
- My extended response has an introduction, body and conclusion and is within the 1000 word limit (not including the reference list).
- My essay answers the 'explain, assess or evaluate' question in a well structured, coherent response which has paragraphs that flow and link with one another.
- I have completed a source analysis of three sources of between 400 -600 words
- I have used a size 12 font in Arial with 1.5 line spacing and a 2 cm border.
- I have referenced all borrowed ideas, quotes or work and re-worded information (unless it is a quote).
- I have used in-text or footnote referencing for all ideas, quotes or work.
- I have a reference list/bibliography at the end of my essay that is in alphabetical order.

<b>Marking Guidelines Extended response:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>provides a comprehensive analysis and interpretation of different types of sources for evidence</li> <li>presents sophisticated conclusions to support an historical account or argument</li> <li>develops a sophisticated and well-structured response, supported by relevant and accurate historical knowledge, concepts and terms</li> </ul>	A 17-20
<ul style="list-style-type: none"> <li>provides a thorough analysis and interpretation of different types of sources for evidence</li> <li>presents sound conclusions to support an historical account or argument through the use of relevant evidence from a range of sources</li> <li>develops a well-structured response, supported by relevant historical knowledge, concepts and terms</li> </ul>	B 13-16
<ul style="list-style-type: none"> <li>provides a sound analysis AND/OR interpretation of sources for evidence</li> <li>presents general conclusions, which may support an historical account of argument, through the use of relevant evidence from sources</li> <li>develops a structured response, supported by relevant historical knowledge, concepts and terms</li> </ul>	C 9-12
<ul style="list-style-type: none"> <li>makes reference to sources for evidence; attempts to provide an analysis of sources</li> <li>attempts to present conclusions through the use of evidence from sources</li> <li>presents a basic response using some historical knowledge, concepts and terms</li> </ul>	D 5-8
<ul style="list-style-type: none"> <li>makes limited use of sources for evidence</li> <li>presents limited information through simple statements</li> </ul>	E 1-4
<ul style="list-style-type: none"> <li>Student fails to submit assignment/plagiarism</li> </ul>	N

<b>Marking Guidelines:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>provides a clear and sophisticated explanation of the relevance of three sources to the investigation undertaken</li> <li>explicitly analyses the value and limitation of three of the sources for the investigation with reference to the origins, purpose and content of the sources.</li> </ul>	A 9-10
<ul style="list-style-type: none"> <li>provides a clear explanation of the relevance of three sources to the investigation undertaken</li> <li>analyses the value and limitations of three of the sources for the investigation</li> </ul>	B 7-8
<ul style="list-style-type: none"> <li>explains the relevance of three sources to the investigation</li> <li>provides a description of the value and limitation of three of the sources for the investigation</li> </ul>	C 5-6
<ul style="list-style-type: none"> <li>explains the relevance of two sources to the investigation</li> <li>mentions the value and limitations of three of the sources</li> </ul>	D 3-4
<ul style="list-style-type: none"> <li>identifies relevant and appropriate sources</li> <li>mentions the value and limitations of three of the sources</li> </ul>	E 1-2
<ul style="list-style-type: none"> <li>Student fails to submit assignment/plagiarism</li> </ul>	N

### **Topic 3: Case Studies B: Colonisation in Indochina to 1945**

Students investigate aspects of the history of the modern world using a range of sources. Aspects of life in Indochina before 1945 will be examined in the context of:

- the historical context
- the nature of the features, people, ideas, movements, events and/or developments selected for study, for example: – the role of individuals and/or groups in their historical context – the causes of events and/or developments and how they shaped the past – the impact of events on the history of an individual nation, region and/or the wider world.
- a relevant historical debate or issue.

### **Topic 4: Case Studies A: The American Civil War**

#### **Content Focus**

Students investigate the causes and consequences of the American Civil War, using a range of sources. The Historical concepts and skills content is to be integrated as appropriate.

#### **Content**

Students investigate:

- the historical context, including:
  - the nature of economic and social differences between the North and the South, and States' Rights
  - slavery, human rights and the growth of the abolition movement
  - the North and the issue of national unity
- the nature of the American Civil War, including:

- the outbreak of war in 1861
  - key battles of the American Civil War, eg the Battle of Gettysburg
  - the role of different groups during the Civil War, eg soldiers, nurses, slaves
  - the reasons for the Union victory and the immediate consequences of the American Civil War
  - the legacy of the American Civil War
- a relevant historical debate or issue, for example:
    - the causes of the Civil War



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Preliminary Modern History
<b>Teacher:</b>	Mr Williams
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Examination
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 3, Weeks 9/10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	2-hour paper in examination period
<b>Presentation and Submission Guidelines:</b>	Complete responses on provided marking paper and writing booklets.
<b>Marking Process:</b>	Mr Williams to mark based on marking criteria

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
MH11-2	Proposes ideas about the varying causes and effects of events and developments
MH11-4	Accounts for the different perspectives of individuals and groups
MH11-5	Examines the significance of historical figures, people, ideas, movements, events and developments of the modern world
MH11-9	Communicates historical understanding, using historical knowledge, concepts and terms in appropriate and well-structured forms

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____



# Music 1

# Music 1

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<b>Task 1:</b>	<b>Task 2:</b>	<b>Task 3:</b>
		Composition Portfolio	Viva Voce and Aural Analysis	Aural & Performance Examination
		<b>Date:</b> Term 1 Week 9	<b>Date:</b> Term 2 Week 8	<b>Date:</b> Term 3 Week 9/10
		<b>Outcomes:</b> P2, P3, P4, P5, P7	<b>Outcomes:</b> P2, P4, P6, P7, P8	<b>Outcomes:</b> P1, P4, P5, P6, P7, P8
<b>TASK WEIGHTINGS</b>				
Performance Core	25%			25%
Composition Core	25%	25%		
Musicology Core	25%		25%	
Aural Core	25%		10%	15%
<b>OB Total</b>	<b>100%</b>	<b>25%</b>	<b>35%</b>	<b>40%</b>

## Outcomes

Through activities in performance, composition, musicology and aural, a student:

- P1** Performs music that is characteristic of the topics studied.
- P2** Observes, reads, interprets and discusses simple musical scores characteristic of topics studied.
- P3** Improvises and creates melodies, harmonies and rhythmic accompaniments for familiar sound sources reflecting the culture and historical contexts studied.
- P4** Recognises and identifies the concepts of music and discusses their use in a variety of musical styles.
- P5** Comments on and constructively discusses performances and compositions.
- P6** Observes and discusses concepts of music in works representative of the topics studied.
- P7** Understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied.
- P8** Identifies, recognises, experiments with and discusses the use of technology in music.
- P9** Performs as a means of self-expression and communication.
- P10** Demonstrates a willingness to participate in performance, composition, musicology and aural activities.
- P11** Demonstrates a willingness to accept and use constructive criticism.

**Note:** In addition to the assessment tasks, students must undertake a variety of smaller performance, composition, musicology and aural activities FOR EACH TOPIC in order to satisfy syllabus requirements.

- These additional activities may be class bases and/or individual based.
- The exact nature of these tasks will be more thoroughly outlined closer to the date of submission.

**Scope and Sequence Year 11 Music 2025**

<b>Term 1-11 Weeks- Unit 1-Methods of Notating Music</b>	<b>Term 2-10 Weeks- Unit 2-Australian Music</b>	<b>Term 3-10 Weeks- Unit 3-Rock Music</b>
<b>Musicology</b>	<b>Musicology</b>	<b>Musicology</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Studied the development of notation over the centuries.</li> <li>Studied traditional and western influences on music.</li> <li>Studied conventional notation.</li> <li>Studied guitar chord charts and tablature.</li> <li>Studied contemporary notation</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Studied the development of jazz in Australia.</li> <li>Researched three Australian classical pieces.</li> <li>Researched the history of rock music in Australia.</li> <li>Studied the development of Aboriginal music from tradition to rock.</li> <li>Researched two Australian artists from any style and complete a analysis of a piece of music by both artists.</li> </ul>	By the end of the unit students will have studied the following : <ul style="list-style-type: none"> <li>Different aspects of rock music-Soul, Heavy Rock, Progressive Rock, Disco, Soft Rock, Aboriginal Rock, Reggae/Latin Rock, Hip Hop</li> </ul>
<b>Performance</b>	<b>Performance</b>	<b>Performance</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Performed as a soloist and part of an ensemble.</li> <li>Performed pieces in different styles and cultural backgrounds.</li> <li>Developed skills in reading music using staff, tab and graphic notation.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Performed as a soloist and part of an ensemble.</li> <li>Performed pieces in different styles of Australian Music.</li> <li>Developed skills in reading music using staff, tab and graphic notation.</li> </ul>	By the end of the unit the students will have: <ul style="list-style-type: none"> <li>Selected two pieces to perform for yearly assessment. One piece is to be Australian and the other is Rock. Students can perform as a soloist or in a small ensemble</li> </ul>
<b>Composition</b>	<b>Composition</b>	<b>Composition</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Composed rhythmic ostinatos.</li> <li>Composed melodies using the pentatonic scale.</li> <li>Composed melodies using major keys.</li> <li>Improvised call and response techniques.</li> <li>Improvised using modes.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Prepare an instrument of their choice and demonstrate changes in tone colour.</li> <li>Graphically notate a composition with an Aboriginal theme.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Compose riffs in different rock styles</li> <li>Develop skills in notating walking bass patterns</li> <li>Eight bar melody using a set chord progression and perfect and imperfect cadences.</li> </ul>
<b>Listening</b>	<b>Listening</b>	<b>Listening</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Been introduced to the concepts of music – pitch, duration, texture, tone colour, dynamic and expressive techniques and structure.</li> <li>Analysed musical examples from different styles and cultures.</li> <li>Broadened their listening repertoire by listening to a variety of styles of music.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Continued to develop an understanding on the concepts of music – pitch, duration, texture, tone colour, dynamic and expressive techniques and structure.</li> <li>Analysed musical examples from different styles of Australian Music.</li> <li>Broadened their listening repertoire by listening to a variety of styles of Australian Music.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Rock Introduction –Stumblin and Rock patterns using electric guitars and drums</li> <li>Heavy rock-Woman and Freak Soft Rock-Truly, Madly, Deeply and Ten Days</li> <li>Soul-Heard it through the Grapevine, Progressive Rock-Bohemian Rhapsody.</li> <li>Disco-Love is in the Air Reggae/Latin Rock- Days like These</li> <li>Indigenous Rock-Soul Chant Hip Hop-I Love It</li> </ul>
<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>
Assessment Task 1 –Weighting 25% Compose a composition for an instrument of your choice	Assessment Task 2 –Weighting 35% Research one Australian artist and analyse two musical excerpts	Assessment Task 3 Weighting-40% Present two pieces representing topics studied in the course Complete an aural analysis of 4 pieces, referring to the concepts
<b>Outcomes- Through activities in performance, composition, musicology and aural, a student:</b>		
P.1 Performs music that is characteristic of the topics studied P.2 Observes, reads, interprets and discusses simples musical scores characteristic of topics studied P.3 Improvises and creates melodies, harmonies and rhythmic accompaniments for familiar sound sources reflecting the cultural and historical contexts studied P.4 Recognises and identifies the concepts of music and discusses their use in a variety of musical styles P. 5. Comments on and constructively discusses performances and compositions P. 6. Observes and discusses concepts of music in works representative of the topics studied. P. 7. Understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied. P.8 Identifies, recognises, experiments with and discusses the use of technology in music P. 9. Performs as a means of self expression and communication P. 10. Demonstrates a willingness to participate in performance, composition, musicology and aural activities P.11. Demonstrates a willingness to accept and use constructive criticism		



**Scope and Sequence Year 12 Music 2025-2026**

<b>Term 4-10 Weeks- Unit 1-An Instrument and It's Repertoire</b>	<b>Term 1-10 Weeks- Unit 2-Music for Small Ensembles</b>	<b>Term 2-10 Weeks- Unit 3-Own Choice</b>	<b>Term 3-10 Weeks- HSC Revision</b>
<b>Musicology</b>	<b>Musicology</b>	<b>Musicology</b>	<b>Musicology</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Researched information on an instrument of their choice including the history and development of the instrument, the structure and parts of the instrument, a musician, the impact of technology and analysis of a video performance.</li> <li>Completed a viva voce on an instrument of their choice using the information researched.</li> </ul>	By the end of the unit students will have studied the following: <ul style="list-style-type: none"> <li>Studied different voice types and vocal ensembles- S.A.T.B. barbershop quartet and female quartet.</li> <li>Studied different types of jazz ensembles- modern and traditional.</li> <li>Identified different types of string terms.</li> <li>Identified different types of saxophone brass and woodwind combinations.</li> </ul>	By the end of the unit students will have studied the following: <ul style="list-style-type: none"> <li>History of their chosen topic</li> <li>Analysed musical works relevant to their topic.</li> <li>Researched musicians that are important to their topic.</li> <li>Researched musical instruments that are relevant to their topic.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Revised all three topics in preparation for their HSC</li> <li>Complete the summary form to take to their HSC</li> </ul>
<b>Performance</b>	<b>Performance</b>	<b>Performance</b>	<b>Performance</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Performed a number of pieces in varying styles as a soloist or as part of an ensemble on a chosen instrument of study.</li> <li>Performed their composition task on a chosen instrument as a soloist or as part of a small ensemble.</li> </ul>	By the end of the unit the students will have <ul style="list-style-type: none"> <li>Performed When the Saints.</li> <li>Improvised using a Jazz score and mode.</li> <li>Performed pieces of their choice as a small ensemble.</li> </ul>	By the end of the unit the students will have <ul style="list-style-type: none"> <li>Performed their own composition.</li> <li>Performed repertoire for their HSC</li> <li>Selected and performed repertoire that is relevant to their own topic of research.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Prepared and perform a core piece for their HSC</li> <li>Prepared three electives to represent the three different topics studied for their HSC</li> </ul>
<b>Composition</b>	<b>Composition</b>	<b>Composition</b>	<b>Composition</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Composed a piece lasting for two to three minutes representing their chosen instrument</li> <li>Notated using standard notation or performed their composition including tempo indications</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Compose an eight bar melody for two voices.</li> <li>Improvise a melody using a mode to a bass riff and drum pattern.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Performed and/or notated their own composition.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Complete compositions of this is there chosen area of study for the HSC</li> </ul>
<b>Listening</b>	<b>Listening</b>	<b>Listening</b>	<b>Listening</b>
By the end of the unit students will have: <ul style="list-style-type: none"> <li>Understood the musical terms related to each concept of music through a glossary of terms or mind map and through the use of strategies such as silent card shuffle and flash cards.</li> <li>Independently analysed a number of different pieces in terms of the concepts of music.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Identified different voice types-soprano, alto, tenor, bass</li> <li>Identified different instruments of the orchestra and analysed musical excerpts – identifying, describing and analysing the use of the six concepts of music.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Listening to material that is relevant to the topic of research.</li> <li>Revised the aural concepts.</li> <li>Completed a number of different practice HSC Aural questions in relation to all of the concepts of music.</li> </ul>	By the end of the unit students will have: <ul style="list-style-type: none"> <li>Continued to practice past HSC papers including;</li> <li>2015 Trial paper</li> <li>2015 prelim Paper</li> <li>2015 HSC</li> </ul>
<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>
Assessment Task 1 –Weighting 10% Compose a composition for an instrument of your choice	Assessment Task 2 –Weighting 10% Present a viva voce on Topic 2 Assessment Task 3 –Weighting 25% Half Yearly Exam-Aural 10% and Elective 1-15%	Assessment Task 4- Weighting-15% Elective 2-15% Assessment Task 5-Weighting 40% Core Performance-10%, Aural-15%, Elective 3-15%	Assessment Task 5 –Weighting 40% Core Performance 10% Aural Core 15%, Elective 15%
<b>Outcomes- Through activities in performance, composition, musicology and aural, a student:</b>			
H.1 Performs music that is characteristic of the topics studied H.2 Observes, reads, interprets and discusses simples musical scores characteristic of topics studied H.3 Improvises and creates melodies, harmonies and rhythmic accompaniments for familiar sound sources reflecting the cultural and historical contexts studied H.4 Recognises and identifies the concepts of music and discusses their use in a variety of musical styles H. 5. Comments on and constructively discusses performances and compositions H. 6. Observes and discusses concepts of music in works representative of the topics studied. H. 7. Understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied. H.8 Identifies, recognises, experiments with and discusses the use of technology in music H. 9. Performs as a means of self expression and communication H. 10. Demonstrates a willingness to participate in performance, composition, musicology and aural activities H.11. Demonstrates a willingness to accept and use constructive criticism			

## 8 Content: Music 1 Preliminary and HSC Courses

### Preliminary Course

Students will develop knowledge and understanding about the use of the following musical concepts:

- duration
- pitch
- dynamics and expressive techniques
- tone colour
- texture
- structure

and skills in performance, composition, musicology and aural within the context of a range of styles, periods and genres.

Students will study at least THREE topics from the list provided on page 11.

### HSC Course

Students will develop a greater depth of knowledge and understanding of the concepts of music and skills in performance, composition, musicology and aural within the context of a range of styles, periods and genres.

Students will study at least THREE topics from the list provided on page 11.

The topics must be:

*either*

THREE topics which are different from those studied in the Preliminary course

*or*

TWO topics which are different from those studied in the Preliminary course and ONE topic from the Preliminary course which shows greater depth of understanding, explores new repertoire and includes a comparative study.

Students will also choose THREE electives made up of any combination of performance, composition and/or musicology. These three electives must reflect the three topics studied in the HSC course.



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Music 1 – Preliminary Course
<b>Teacher:</b>	Probert/Snow
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Composition Portfolio
<b>Date Issued:</b>	Week 5, Term 1
<b>Date and Time Due:</b>	Week 9, Term 1
<b>Weighting:</b>	25%
<b>Class Time Allocated:</b>	A minimum of 5 lessons will be allocated to unpack the task, and to provide students with feedback and support on each of the sections of the portfolio.
<b>Presentation and Submission Guidelines:</b>	<b>Performances</b> of each of the tasks are to be uploaded to <b>CANVAS</b> and the <b>hard copy booklet</b> is to be handed in to Miss Snow <b>at the end of period 2 on Thursday 27<sup>th</sup> March</b> (Week 9, Term 1).
<b>Marking Process:</b>	Mr Barry will mark the task according to the marking criteria provided.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P2	observes, reads, interprets and discusses simple musical scores characteristic of topics studied
P3	improvises and creates melodies, harmonies and rhythmic accompaniments for familiar sound sources reflecting the cultural and historical contexts studied
P4	recognises and identifies the concepts of music and discusses their use in a variety of styles
P5	comments on and constructively discusses performances and compositions
P7	understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____

### Task Description:

#### Complete the following four tasks:

1. **Compose two sections of drum notation in a style of your choice.**  
You must write the piece for 2 sections. The piece is to be 16 bars in length using a simple time signature. You must be able to perform the rhythm.
2. **Compose two sections of drum notation in a style of your choice.**  
You must notate your melody on the staff. It is recommended you start and finish on the same note. You can select your own time signature, key signature, rhythm pattern and starting note. Include dynamics and expressive markings. You must be able to perform your melody.
3. **Compose a riff or solo using tablature.**  
It is optional how many bars you would like your riff or solo to be, however it should be eight bars at a minimum. You must be able to perform your riff/solo.
4. **Compose a song in a verse-chorus structure.**  
You will need to create a piece of music in a popular style. Your song must include AT LEAST 1 verse and 1 chorus. You will then add lyrics. Notate your chord progression above the lyrics. You must be able to perform your composition (chords OR lyrics). You may perform in an ensemble if needed.

You will be required to **reflect** on the areas of strengths and weaknesses in your performance of **each of the composition tasks** in a **discussion or written reflection** with the teacher.

### Success Criteria:

You will be assessed on your ability to successfully:

- Compose and perform a 16 bar drum line, demonstrating a thorough understanding of drum notation.
- Compose and notate an eight-bar melody, demonstrating a thorough understanding of notation using the staff.
- Compose, notate and perform a riff or solo using tablature, demonstrating comprehensive knowledge and understanding of musical features of a riff/melodic ostinato
- Compose a chord progression and lyrics in a popular song style, with a verse and chorus structure.
- Reflect upon and discuss their performance of **each composition task** with depth, detail and understanding of strengths and areas for improvement

Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Original rhythmic composition that encompasses two sections and at least 16 bars, that is accurately notated in full and performed at an <b>outstanding</b> level.</li> <li>Original eight-bar melody is notated accurately on the treble clef, demonstrating a <b>thorough understanding of notation</b> using the stave, <b>with additional tempo and dynamic markings</b> present and performed with accuracy.</li> <li>Original riff/solo composed and notated accurately on tablature and performed at an <b>outstanding</b> level, demonstrating comprehensive knowledge and understanding of the musical features in a riff.</li> <li>Original 'popular song' composed with a verse and chorus structure. <b>A full-length song with more than 2 sections.</b> Chord progression and lyrics are outlined clearly. Performance demonstrating <b>proficient</b> level of skill.</li> <li><b>Evaluates</b> performances of each composition task with <b>high</b> level of detail and understanding of strengths and areas for improvement.</li> </ul>	<p style="text-align: center;">A 21-25</p>
<ul style="list-style-type: none"> <li>Original rhythmic composition that encompasses two sections and at least 16 bars that is accurately notated and performed at a <b>high level</b>.</li> <li>Original eight-bar melody is notated accurately on the treble clef, demonstrating a thorough understanding of notation using the stave and performing the melody at a <b>high level</b> of accuracy.</li> <li>Original riff/solo composed and notated accurately on tablature and performed at a <b>high level</b>, demonstrating knowledge and understanding of the musical features in a riff.</li> <li>Original 'popular song' composed with a verse and chorus structure. There is 1 verse and 1 chorus. Chord progression and lyrics are outlined clearly. Performance demonstrating a <b>high</b> level of skill.</li> <li>Discusses performances of each composition task with detail and understanding of strengths and areas for improvement.</li> </ul>	<p style="text-align: center;">B 16-20</p>
<ul style="list-style-type: none"> <li>Two section rhythmic composition that may or may not have a minimum of 16 bars is notated and performed.</li> <li>Eight-bar melody is notated on the treble clef, demonstrating an understanding of notation using the stave and performing the melody on instrument of choice.</li> <li>Riff/solo composed and notated on tablature and performed, demonstrating understanding of the musical features in a riff.</li> <li>Song composed with a verse and chorus structure. <b>1 verse, 1 chorus</b>, chord progression and lyrics are outlined.</li> <li>Some discussion around the performance of at least one composition task with detail and understanding of strengths and areas for improvement.</li> </ul>	<p style="text-align: center;">C 11-15</p>
<ul style="list-style-type: none"> <li><b>Partially</b> notated two section rhythmic composition that is attempted to be performed that has less than 16 bars. May be <b>some inaccuracies</b> present.</li> <li><b>Partially</b> notated eight-bar melody notated on the stave, demonstrating <b>some understanding</b> of notation and an attempt made at performing melody on instrument of choice. May be some inaccuracies present.</li> <li>Riff/solo composed and <b>partially</b> notated on tablature with an attempt made to perform. May be some inaccuracies present.</li> <li><b>Components</b> of a song composed with an attempt at a verse, chorus structure. Chord progression and/or lyrics are outlined. Some components may not be present.</li> <li>Little attempt to discuss performances of the composition tasks, with basic understanding of strengths and areas for improvement.</li> </ul>	<p style="text-align: center;">D 6-10</p>
<ul style="list-style-type: none"> <li>Limited/no attempt at notating a two section rhythmic composition that has less than 16 bars with limited/no attempt to perform.</li> <li>Limited/no attempt at notating a melody on the stave, basic understanding of notation with limited/no attempt to perform.</li> <li>Limited/no attempt at composing and notating a riff/solo on tablature with limited/no attempt made to perform.</li> <li>Limited/no attempt at composing a song composed with a verse, chorus structure. Limited/no attempt to include a riff, chord progression and/or lyrics.</li> <li>Limited/no attempt to discuss performances of the composition tasks.</li> </ul>	<p style="text-align: center;">E 1-5</p>
<ul style="list-style-type: none"> <li>Student fails to submit assignment/plagiarism</li> </ul>	<p style="text-align: center;">N</p>



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Music 1
<b>Teacher:</b>	Probert/Snow
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Viva Voce and Aural Analysis
<b>Date Issued:</b>	Week 4, Term 2, 2025
<b>Date and Time Due:</b>	Week 8, Term 2, 2025
<b>Weighting:</b>	35% (Musicology 25% & Aural 10%)
<b>Class Time Allocated:</b>	A minimum of 4 lessons will be allocated up until the due date for students to receive feedback and support.
<b>Presentation and Submission Guidelines:</b>	<b>Section A: Viva Voce</b> - 8 min timeslots will be allocated - TBA <b>Section B: Aural Task</b> - TBA
<b>Marking Process:</b>	Mrs Probert and Miss Snow will mark the tasks according to the marking criteria provided.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P2	observes, reads, interprets and discusses simple musical scores characteristic of topics studied
P4	Recognises and identifies the concepts of music and discusses their use in a variety of musical styles
P6	Observes and discusses concepts of music in works representative of the topics studied
P7	Understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied
P8	Identifies, recognises, experiments with and discusses the use of technology in music
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	

## Task Description:

### **SECTION A - Musicology**

Present a *viva voce* on an Australian artist or group.

The following summary points are to be included in your viva voce outline;

- Outline **important musical facts** about the musician/group
- Describe **important musical features of the style** they perform in
- Select **two contrasting songs** that represent the style and **complete an aural analysis**, referring to the **six concepts of music** and include musical scores/notation as evidence
- Comment on the **role of technology relation to performing media (instruments)**

Present an 8 minute viva voce (musical discussion). Each student is to select a time on either Monday 17<sup>th</sup> June or Thursday 20<sup>th</sup> June to present their viva voce. You are to complete a viva voce outline (attached) outlining the main points of your discussion.

Support material is highly recommended. This may include:

- Musical excerpts
- Practical demonstrations
- Musical scores
- Any other relevant resources

### **SECTION B – Aural**

Two pieces of music will be played, and you will be required to answer questions on the musical concepts of;

- Pitch
- Duration

The musical excerpts will be unprepared listening. This task will be completed in class, period 4 on Tuesday 18<sup>th</sup> June 2024.

## Success Criteria:

### **Section A: Research Task and Viva Voce**

A student can:

- identify an Australian musician or group and discuss, with detail, significant musical facts about their background
- describe features of the musical style of the musician/group, demonstrating comprehensive understanding of the genre
- analyse two contrasting musical excerpts, referencing musical scores/notation, reflecting deep knowledge and understanding of the six musical concepts
- discuss the role technology has played in the musical excerpts, with deep understanding
- maintain a clear and consistent musicological focus throughout the Viva Voce
- support the Viva Voce discussion with relevant musical examples

### **Section B: Aural Analysis**

A student can:

- discuss in detail the use of pitch/duration in the excerpt
- demonstrate a developed aural understanding, using supporting examples and descriptions of musical events

Marking Guidelines: Musicology	Marks (25)
<ul style="list-style-type: none"> <li>• Identifies an Australian musician or group and discusses, with detail, significant musical facts about their background</li> <li>• Describes features of the style, demonstrating comprehensive understanding of the genre</li> <li>• Two contrasting musical excerpts have been analysed, with reference to musical scores/notation, reflecting deep knowledge and understanding</li> <li>• Discusses the role technology has played in the music with deep understanding</li> <li>• Viva Voce has a clear and consistent musicological focus</li> <li>• Viva Voce discussion is supported with relevant musical examples</li> </ul>	<p style="text-align: center;">A 21-25</p>
<ul style="list-style-type: none"> <li>• Identifies an Australian musician or group and discusses significant musical facts about their background</li> <li>• Describes features of the style, demonstrating understanding of the genre</li> <li>• Two contrasting musical excerpts have been analysed, with reference to musical scores/notation, reflecting knowledge and understanding</li> <li>• Discusses the role technology has played in the music with understanding</li> <li>• Viva Voce has a musicological focus</li> <li>• Viva Voce discussion is supported with musical examples</li> </ul>	<p style="text-align: center;">B 16-20</p>
<ul style="list-style-type: none"> <li>• Identifies an Australian musician or group and discusses facts about them</li> <li>• Identifies features of the style, demonstrating some understanding of the genre</li> <li>• Two musical excerpts have been analysed, with reference to musical scores/notation, reflecting some knowledge and understanding</li> <li>• Discusses the role technology has played in the music with some understanding</li> <li>• Viva Voce has a musicological focus but may need to be prompted through questions</li> <li>• Viva Voce discussion is presented with some musical examples</li> </ul>	<p style="text-align: center;">C 11-15</p>
<ul style="list-style-type: none"> <li>• Identifies an Australian musician or group and attempts to identify basic facts about them</li> <li>• Attempts to identifies some features of the style, demonstrating some understanding of the genre</li> <li>• One or two musical excerpts have been identified and analysed, with some reference to musical scores/notation, reflecting some knowledge and understanding</li> <li>• Attempts to identify the role technology has played in the music with little understanding</li> <li>• Makes an attempt to provide a musicological focus in the Viva Voce</li> <li>• Viva Voce discussion is presented with few musical examples</li> </ul>	<p style="text-align: center;">D 6-10</p>
<ul style="list-style-type: none"> <li>• Identifies an Australian musician or group with a basic discussion of facts</li> <li>• Identifies very few/no features of the style, demonstrating basic understanding of the genre</li> <li>• Musical excerpts have not been analysed, with limited to no reference to musical scores/notation</li> <li>• Makes an attempt to identify the role technology has played in the music with basic understanding</li> <li>• Viva Voce lack a musicological focus</li> <li>• Viva Voce has irrelevant or inappropriate musical examples</li> </ul>	<p style="text-align: center;">E 1-5</p>
<ul style="list-style-type: none"> <li>• Student fails to submit assignment/plagiarism</li> </ul>	<p style="text-align: center;">N</p>



<b>Marking Guidelines: Aural</b>		<b>Marks (10)</b>
<b>Question 1</b>		
<ul style="list-style-type: none"> <li>Discusses in detail the use of pitch in the excerpt (including the melody, harmony and tonality)</li> <li>Demonstrates a developed aural understanding, with supporting examples and descriptions of musical events</li> </ul>		5 (A)
<ul style="list-style-type: none"> <li>Discusses the use of pitch in the excerpt (including the melody, harmony and/or tonality)</li> <li>Demonstrates some aural understanding, but makes generalisations and may not provide supporting examples.</li> </ul>		3-4 (C-B)
<ul style="list-style-type: none"> <li>Demonstrates limited to basic aural understanding in identifying or commenting on how pitch is used in the excerpt.</li> </ul>		1-2 (E-D)
<ul style="list-style-type: none"> <li>Does not attempt or address question</li> </ul>		0
<b>Question 2</b>		
<ul style="list-style-type: none"> <li>Discusses in detail the use of duration in the excerpt (including the beat, metre, tempo and rhythm)</li> <li>Demonstrates a developed aural understanding, with supporting examples and descriptions of musical events</li> </ul>		5 (A)
<ul style="list-style-type: none"> <li>Discusses the use of duration in the excerpt (including the beat, metre, tempo and/or rhythm)</li> <li>Demonstrates some aural understanding, but makes generalisations and may not provide supporting examples.</li> </ul>		3-4(C-B)
<ul style="list-style-type: none"> <li>Demonstrates limited to basic aural understanding in identifying or commenting on how duration is used in the excerpt.</li> </ul>		1-2 (E-D)
<ul style="list-style-type: none"> <li>Does not attempt or address question</li> </ul>		0
<b>Feedback:</b>		
<b>Medals</b>	<b>Missions</b>	
<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	

## MUSIC 1 MUSICOLOGY VIVA VOCE OUTLINE SUMMARY

STUDENT NO: ..... Student first name..... SCHOOL NO: .....

*To be prepared in advance and handed to the Markers*

*(A separate form must be used for each Viva Voce)*

This Musicology Viva Voce is being presented as (✓):

ELECTIVE 1                      or                       ELECTIVE 2                      or                       ELECTIVE 3

The *viva voce* must represent the topic of **AUSTRALIAN MUSIC** as studied in the Preliminary Course.

The maximum length of each *viva voce* is 5-7 minutes.

If more than one Musicology elective is presented, each Viva Voce must represent a different Course Topic.

Title of Viva Voce	Course Topic Represented
	<b>Australian Music</b>

**Outline Summary:**



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Music 1
<b>Teacher:</b>	Probert/Snow
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Aural & Performance Examination
<b>Date Issued:</b>	Week 5, Term 3, 2025
<b>Date and Time Due:</b>	Week 9/10, Term 3 (Preliminary Exam Block) – Date and Time TBA
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Class time will be provided in the lead up to the assessment for students to rehearse and receive feedback on their performances
<b>Presentation and Submission Guidelines:</b>	1 x 1 hour aural paper timetabled during exam block 1 x 15 minute time slot allocated during exam block
<b>Marking Process:</b>	Collegially marked by: Mrs Probert, Miss Snow and Mr Barry according to the marking criteria provided.
<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	performs music that is characteristic of the topics studied
P4	recognises and identifies the concepts of music and discusses their use in a variety of musical styles
P5	comments on and constructively discusses performances and compositions
P6	observes and discusses concepts of music in works representative of the topics studied
P7	understands the capabilities of performing media, explores and uses current technologies as appropriate to the topics studied
P8	identifies, recognises, experiments with and discusses the use of technology in music
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.	
<i>Participants Signature:</i> _____	



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

**Task Description:**

**TASK 1 (15%) - AURAL**

Four pieces of music will be played to you and you will be required to answer questions using knowledge of the following aural concepts:

- Pitch
- Duration
- Texture
- Tone Colour
- Dynamic and Expressive Techniques
- Structure

You will also need to have knowledge of:

- Contrast
- Interest
- Momentum
- Variety

**TASK 2 (25%) - PERFORMANCE**

Task 2 will be presented in a 15-minute individual time slot. You will need to select your time slot.

You are required to **perform two pieces** which represent the topics listed below. You can perform as a soloist or in a small ensemble.

- Rock Music
- Australian Music
- Methods of Notating Music

**Success Criteria:**

**TASK 1 – (15%) AURAL**

A student can:

- demonstrate focused listening, providing well-supported observations of musical events;
- refer to aural concepts in a detailed and appropriate way;
- display high quality organisation of responses; and
- stay focused on the specific concept to be discussed.

**TASK 2 – (25%) PERFORMANCE**

A student can:

- demonstrate technical skills that incorporate fluency and articulation appropriate to the style;
- demonstrate stylistic understanding through dynamics and expressive techniques;
- perform with a well-developed sense of personal expression; and
- demonstrate an understanding of solo/ensemble techniques.



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

Marking Guidelines: Aural	Marks
<ul style="list-style-type: none"> <li>• Demonstrates focused listening with well-supported observations, including detailed descriptions of musical events, in a suitably structured response.</li> <li>• Referred to aural concepts in a detailed and appropriate way, specifically relating responses to certain aspects of the music.</li> <li>• Displayed high quality organisation of answer making sound and logical sense.</li> <li>• Stayed focused on the question and specific concept to be discussed.</li> </ul>	<p>A</p> <p>13-15</p>
<ul style="list-style-type: none"> <li>• Demonstrated careful listening with well supported observations, including detailed descriptions of musical events, in a suitably structured response.</li> <li>• Referred to aural concepts in a good and appropriate way, relating responses to some aspects of the music.</li> <li>• Displayed good organisation of answer making fairly sound and logical sense.</li> <li>• Stayed fairly focused on the question and specific concept to be discussed</li> </ul>	<p>B</p> <p>10-12</p>
<ul style="list-style-type: none"> <li>• Demonstrated some musical awareness, but often made generalisations without providing supporting examples.</li> <li>• Referred to some aspects of aural concepts, relating responses to aspects of the music.</li> <li>• Displayed satisfactory organisation skill, however not all answers made clear and logical sense.</li> <li>• Tended to be confused about the question and the specific concepts to be discussed.</li> </ul>	<p>C</p> <p>7-9</p>
<ul style="list-style-type: none"> <li>• Demonstrated limited musical awareness, describing musical events incorrectly or in a superficial way.</li> <li>• Limited knowledge of aural concepts and the ability to relate responses to the music.</li> <li>• Displayed limited organisation of answer, often not making sound and logical sense.</li> <li>• Often waffled away from the question and the specific concepts to be discussed.</li> </ul>	<p>D</p> <p>4-6</p>
<ul style="list-style-type: none"> <li>• Demonstrated basic musical awareness, describing musical events incorrectly or in a superficial way.</li> <li>• Basic knowledge of aural concepts and the ability to relate responses to the music.</li> <li>• Displayed little to no organisation of answer, often not making sound and logical sense.</li> <li>• Often waffled away from the question and the specific concepts to be discussed.</li> </ul>	<p>E</p> <p>1-3</p>
<ul style="list-style-type: none"> <li>• Student failed to submit</li> </ul>	<p>N</p>



**Hunter River High School**  
**ASSESSMENT TASK NOTIFICATION**

<b>Marking Guidelines: Performance</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Demonstrates excellent technical skills incorporating technical fluency, technical facility, intonation and articulation appropriate to the chosen repertoire.</li> <li>• Demonstrates perceptive stylistic understanding through performing repertoire using articulation, dynamics and expressive techniques.</li> <li>• Performs with a well-developed sense of personal expression, demonstrated by the use of appropriate expressive techniques and sensitivity to the chosen style.</li> <li>• Demonstrates an excellent understanding of solo/ensemble techniques including understanding of the role of soloist/ensemble member, communication with the accompanist/ensemble and issues of balance.</li> </ul>	<p>A</p> <p>21-25</p>
<ul style="list-style-type: none"> <li>• Demonstrates accomplished technical skills incorporating technical fluency, technical facility, intonation and articulation appropriate to the chosen repertoire.</li> <li>• Demonstrates a detailed stylistic understanding through performing repertoire using articulation, dynamics and expressive techniques.</li> <li>• Performs with a sense of personal expression, demonstrated by the use of appropriate expressive techniques and a sensitivity to the chosen style.</li> <li>• Demonstrates an accomplished understanding of solo/ensemble techniques including understanding of the role of soloist/ensemble member, communication with the accompanist</li> </ul>	<p>B</p> <p>16-20</p>
<ul style="list-style-type: none"> <li>• Demonstrates competent technical skills. Some problems in maintaining technical fluency, technical facility as are inconsistencies in intonation.</li> <li>• Demonstrates a sense of stylistic understanding through performance of the chosen repertoire. The articulation, dynamics and expressive techniques may not be consistently appropriate to the chosen style.</li> <li>• Performs the chosen repertoire with a sense of musical expression, with an attempt to incorporate expressive techniques appropriate to the chosen style.</li> <li>• Demonstrates a competent, although no consistent understanding of solo/ensemble techniques including understanding of the role of soloist/ensemble member, communication with the accompanist/ensemble and issue of balance.</li> </ul>	<p>C</p> <p>11-15</p>
<ul style="list-style-type: none"> <li>• Demonstrates some basic technical skill although there are frequent inconsistencies in technical fluency, technical facility and intonation.</li> <li>• Demonstrates a basic stylistic understanding. Articulation, dynamics and expressive techniques are not consistently appropriate to the chosen style.</li> <li>• Performs the chosen repertoire with a little sense of musical expression.</li> <li>• Demonstrates a limited awareness of the performers role as a soloist/ensemble member, which may be evident through the lack of communication and balance in the ensemble or with the accompanist.</li> </ul>	<p>D</p> <p>6-10</p>
<ul style="list-style-type: none"> <li>• Demonstrates very limited technical skills.</li> <li>• Demonstrates little evidence of stylistic understanding of the chosen style.</li> <li>• Performs the chosen repertoire with little or no sense of musical expression</li> <li>• The performance demonstrates little or no awareness of the performer's role as a soloist/ensemble member.</li> </ul>	<p>E</p> <p>1-5</p>
<ul style="list-style-type: none"> <li>• Student failed to submit</li> </ul>	<p>N</p>



**Physics**

# Physics

Syllabus Outcomes	Syllabus Component Weight	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		Physics of Sport	Depth Study – Newton’s second law	Examination
		<u>Date:</u> Term 1 Week 11	<u>Date:</u> Term 2 Week 10	<u>Date:</u> Term 3 Week 9/10
<u>Outcomes:</u> PH11/12-5 PH11/12-6 PH11/12-7 PH11-8	<u>Outcomes:</u> PH11/12-1 PH11/12-2 PH11/12-3 PH11/12-4 PH11/12-5 PH11/12-7 PH11-9	<u>Outcomes:</u> PH11/12-1→7 PH11-8→11		
<b>TASK WEIGHTINGS</b>				
Modules Assessed		Module 1	Module 2	Modules 1-4
Skills in working scientifically	60%	25%	25%	10%
Knowledge and understanding of course content	40%	5%	5%	30%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>30%</b>	<b>40%</b>

## Outcomes

### **A student:**

PH11/12-1	develops and evaluates questions and hypotheses for scientific investigation
PH11/12-2	designs and evaluates investigations in order to obtain primary and secondary data and information
PH11/12-3	conducts investigations to collect valid and reliable primary and secondary data and information
PH11/12-4	selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media
PH11/12-5	analyses and evaluates primary and secondary data and information
PH11/12-6	solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
PH11/12-7	communicates scientific understanding using suitable language and terminology for a specific audience or purpose
PH11-8	describes and analyses motion in terms of scalar and vector quantities in two dimensions and makes quantitative measurements and calculations for distance, displacement, speed velocity and acceleration
PH11-9	describes and explains events in terms of Newton’s Laws of Motion, the law of conservation of momentum and the law of conservation of energy
PH11-10	explains and analyses waves and the transfer of energy by sound, light and thermodynamic principles
PH11-11	explains and quantitatively analyses electric fields, circuitry and magnetism





Hunter River High School  
Assessment Task 1 – Year 11 Physics

<b>Student Name:</b>	
<b>Subject/Course:</b>	Physics Preliminary Course
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Physics of Sport
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1 Week 11
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	2 hours of class time
<b>Presentation and Submission Guidelines:</b>	Presentation: Scientific Report format on A4. Submission: As a PDF on Google Classroom.
<b>Marking Process:</b>	Task will be marked by your teacher against the Marking Criteria.

<b>Outcomes Assessed:</b>	
PH11/12-5	analyses and evaluates primary and secondary data and information
PH11/12-6	solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
PH11/12-7	communicates scientific understanding using suitable language and terminology for a specific audience or purpose
PH11-8	describes and analyses motion in terms of scalar and vector quantities in two dimensions and makes quantitative measurements and calculations for distance, displacement, speed velocity and acceleration

<b>Participant Declaration:</b>
<p>I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. I have retained a copy of my work.</p> <p><i>Participants Signature:</i> _____</p>



Hunter River High School  
Assessment Task 1 – Year 11 Physics

**Task Description:**

Over the period of 10 lessons, you will be given the opportunity to choose a sport and apply Physics principles to that sport. You will need to construct an analysis of the sport using a clip on Youtube. Your analysis will be submitted as Assessment Task 1.

Your analysis will be comprised of the following sections:

Context – A brief description of the sport or event.

Analysis – At least 3 equations applied to the chosen sport.

Extrapolation – Extend your analysis to a new situation.

Evaluation – Discuss possible sources of error in your calculations.

References – Make sure you reference where you get your information.

**Sample Analysis: World Record Platform Dive**

**Context:**

In 1984, Rick Charls attempted to equal the World Record for Platform Diving. It took place at Seaworld San Diego in April of 1984. At the time of the jump, Rick was 24 years old. He jumped from a height of 52.4m. According to records, this jump has not been surpassed since. A video of the jump can be found below.

<https://www.youtube.com/watch?v=ZDqN8sEl6oE>

**Analysis:**

According to

<http://www.dailymail.co.uk/news/article-3124838/The-average-American-woman-weight-average-1960s-man.html>

The average American male weighed approximately 176 pounds in 1984. In kg, this equates to 79.8kg. Rick was an athlete and may have weighed slightly less, so let's assume his weight was 75kg.

Using his approximate weight and the height of the platform, we can estimate his gravitational potential energy (U) just before he jumped:



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Assessment Task 1 – Year 11 Physics

$$U = mg\Delta h$$

Where:

U is the Gravitational Potential Energy in Joules

m is the mass of the object

g is acceleration due to gravity

$\Delta h$  is the height above the ground.

Substituting the values mentioned previously:

$$\begin{aligned} U &= 75 \times 9.8 \times 52.4 \\ &= 38514\text{J} \end{aligned}$$

If we assume all of this energy was converted KE, we can calculate Rick's velocity as he hit the water using the formula for Kinetic Energy:

$$KE = \frac{1}{2}mv^2$$

Where:

KE is Kinetic Energy in Joules

m is the mass of the object in kg

v is the velocity of the object

Substituting the values mentioned previously:

$$38514 = \frac{1}{2} \times 75 \times v^2$$

Solving for v gives:

$$v = 32\text{ms}^{-1}$$



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Assessment Task 1 – Year 11 Physics

In reality, some of the Gravitation Potential Energy will be transformed to other forms of energy during the jump. We can work out the specific amount of energy lost by watching the clip and timing his jump using a stop watch. Then we can use  $v = u + at$  to work out his actual velocity when he hit the water.

To increase the accuracy of the measurement, we will time the jump 5 times and take the average:

Trial	Time(s)
1	3.27
2	3.34
3	3.34
4	3.34
5	3.27
<b>Average</b>	<b>3.312</b>

$$v = u + at$$

v is the velocity in  $\text{ms}^{-1}$

u is the initial velocity  $\text{ms}^{-1}$

a is acceleration in  $\text{ms}^{-2}$

t is time in s

$$v = 0 + 9.8 \times 3.312$$

$$= 32 \text{ ms}^{-1}$$

The values for velocity are very similar, suggesting that very little energy is converted to other forms other than KE during the jump.

**Extrapolation:**

How long would it take for Rick to fall if he did the same jump on the Moon? Acceleration due to gravity on the Moon is  $1.624 \text{ ms}^{-2}$  (<https://solarsystem.nasa.gov/moons/earths-moon/by-the-numbers/>)

We can use  $s = ut + \frac{1}{2}at^2$  to determine this.



Hunter River High School  
Assessment Task 1 – Year 11 Physics

s = displacement in m

u is the initial velocity  $\text{ms}^{-1}$

a is acceleration in  $\text{ms}^{-2}$

t is time in s

$$52.4 = 0 \times t + \frac{1}{2} \times 1.624 \times t^2$$

Solving for t gives 8s. The jump time would be more than double than when performed on Earth.

What velocity would Rick hit the water if he performed the same jump on Jupiter? Acceleration due to gravity on Jupiter is 24.79 (<https://solarsystem.nasa.gov/planets/jupiter/by-the-numbers/>).

We can use  $v^2 = u^2 + 2as$  to determine this.

v is the velocity in  $\text{ms}^{-1}$

u is the initial velocity  $\text{ms}^{-1}$

a is acceleration in  $\text{ms}^{-2}$

s is displacement in m

$$v^2 = u^2 + 2 \times 24.79 \times 52.4$$

Solving for v we get  $50.9\text{ms}^{-1}$

**References:**

<https://www.youtube.com/watch?v=ZDqN8sEl6oE>

<http://www.dailymail.co.uk/news/article-3124838/The-average-American-woman-weight-average-1960s-man.html>

<https://solarsystem.nasa.gov/planets/jupiter/by-the-numbers/>

<https://solarsystem.nasa.gov/moons/earths-moon/by-the-numbers/>



Hunter River High School  
Assessment Task 1 – Year 11 Physics

Outcomes:	1	2-3	4-5	6
<b>PH11-5:</b> analyses and evaluates primary and secondary data and information	Evaluates an investigation.	Evaluates an investigation by identifying sources of error.	Evaluates the investigation by identifying sources of error and proposing improvements.	Evaluates the investigation by identifying multiple sources of error and proposing reasonable modifications to improve the investigation.
<b>PH11-6:</b> solves scientific problems using primary and secondary data, critical thinking skills and scientific processes	Attempts to apply knowledge and skills a new situation.  Includes one reference.	Demonstrates the ability to apply knowledge and skills to at least one new situation.  Includes 2 references.	Demonstrates the ability to apply knowledge and skills to at least two new situations.  Includes 3-4 references from a variety of sources.	Demonstrates the ability to apply knowledge and skills to at least two new situations and makes feasible predictions based on physics principles.  Includes at least 5 references from a variety of sources.
<b>PH11-7:</b> communicates scientific understanding using suitable language and terminology for a specific audience or purpose	The information is conveyed inconsistently.	The information is conveyed using appropriate language.  The information is mostly presented with headings, working of mathematical calculations and relevant explanations.	The information is conveyed using language that is specific to the knowledge and skills of the investigation.  The information is consistently presented clearly with headings, working of mathematical calculations and relevant explanations.	The information is conveyed using scientific language that is specific to the knowledge and skills of the investigation.  The information is consistently presented professionally with headings, working of mathematical calculations and relevant explanations.
<b>PH11-8:</b> describes and analyses motion in terms of scalar and vector quantities in two dimensions and makes quantitative measurements and calculations for distance, displacement, speed velocity and acceleration	Applies an equation to perform calculations and expresses answers with correct units.	Applies at least two different equations to perform calculations and expresses answers with correct units.	Applies at least three different equations to perform calculations and expresses answers with correct units.	Applies at least three different equations to correctly perform calculations and expresses answers with correct units.



**Hunter River High School**  
**Assessment Task 1 – Year 11 Physics**

<b>Total</b>	
<b>Course Performance Descriptors</b>	<b>%</b>
<ul style="list-style-type: none"> <li>▪ demonstrates an extensive knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding succinctly, logically, and consistently using correct and precise scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships, explain phenomena, and make predictions</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, valid, and relevant primary and secondary data, and scientific evidence, by applying processes, modelling and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose comprehensive solutions or explanations for scientific issues or scenarios</li> </ul>	<b>A (B6)</b>  <b>90-100</b>
<ul style="list-style-type: none"> <li>▪ demonstrates thorough knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding, logically, and effectively using correct scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making some modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, and valid primary and secondary data, and scientific evidence, by applying processes, and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose explanations for scientific issues or scenarios</li> </ul>	<b>B (B5)</b>  <b>80-89</b>
<ul style="list-style-type: none"> <li>▪ demonstrates sound knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding effectively using scientific terms and application of nomenclature</li> <li>▪ designs and plans investigations to obtain primary and secondary data and evaluates risks</li> <li>▪ processes and interprets primary and secondary data, and represents it using a range of scientific formats</li> <li>▪ identifies scientific problems, questions, or hypotheses and applies processes, and formats to primary or secondary data</li> <li>▪ applies knowledge and information relevant to scientific issues or scenarios</li> </ul>	<b>C (B4)</b>  <b>65-79</b>
<ul style="list-style-type: none"> <li>▪ demonstrates basic knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using basic scientific terms and application of nomenclature</li> <li>▪ implements scientific processes to obtain primary and secondary data and identifies risks</li> <li>▪ processes primary or secondary data, and represents it using scientific formats</li> <li>▪ responds to scientific problems, questions, or hypotheses</li> <li>▪ recalls scientific knowledge and information</li> </ul>	<b>D (B3)</b>  <b>40-64</b>
<ul style="list-style-type: none"> <li>▪ demonstrates limited knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using limited scientific terms</li> <li>▪ partially outlines investigations to obtain data and information</li> <li>▪ provides simple descriptions of scientific phenomena</li> <li>▪ recalls basic scientific knowledge and information</li> </ul>	<b>E (B2)</b>  <b>0-39</b>







Hunter River High School  
ASSESSMENT TASK 2 – YEAR 11 Physics

**Notification**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Physics
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Depth Study – Newton’s second law
<b>Date Issued:</b>	
<b>Date and Time Due:</b>	Term 1, Week 10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	7 hours of class time
<b>Presentation and Submission Guidelines:</b>	You will need to submit your report via Google classroom by the due date.
<b>Marking Process:</b>	You will be marked according to the attached marking criteria.
<b>Outcomes Assessed:</b>	
<p><b>PH11/12-1</b> develops and evaluates questions and hypotheses for scientific investigation.</p> <p><b>PH11/12-2</b> designs and evaluates investigations in order to obtain primary and secondary data and information.</p> <p><b>PH11/12-3</b> conducts investigations to collect valid and reliable primary and secondary data and information.</p> <p><b>PH11/12-4</b> selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media.</p> <p><b>PH11/12-5</b> analyses and evaluates primary and secondary data and information.</p> <p><b>PH11-9</b> describes and explains events in terms of Newton’s Laws of Motion, the law of conservation of momentum and the law of conservation of energy.</p>	

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____

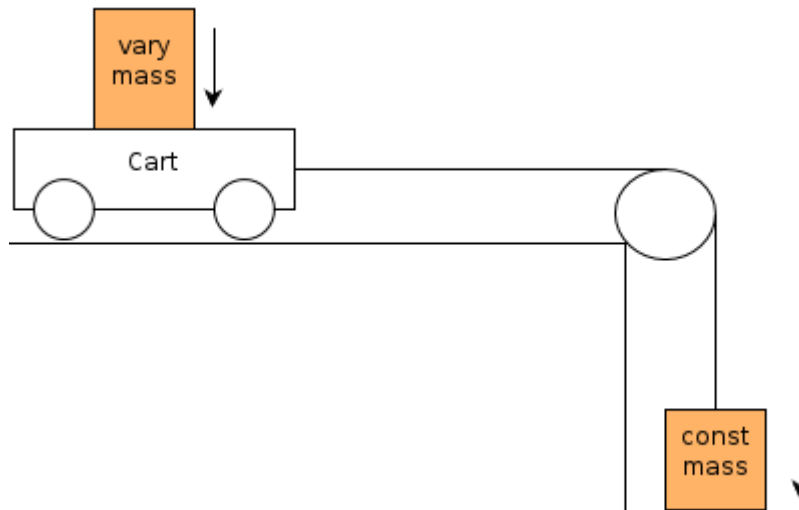
**Task Description:**

Newton's Laws of Motion can be used to describe the effect of forces on the motion of single objects and simple systems. By applying Newton's laws directly to simple systems, students can examine the effects of forces.

This task will require you to conduct an investigation to determine the force on an object. You will then need to compare the force you calculated to the force predicted by Newton's second law.

**Method:**

1. Measure and record the mass of the cart.
2. Calculate the combined mass ( $m_c$ ) by adding the mass of the cart to each mass. Record these calculations in the table
3. Determine the value of  $1/m_c$  for each the masses. Record these calculations in the table.
4. Set up the equipment as shown in the diagram. Attach a 50 g mass to act as the constant weight.



5. Measure out 0.8 m from the cart to the pulley. Place a piece of tape to act as the starting line.
6. Place 0.5 kg mass on the cart.
7. Let the 50 g mass fall and time how long it takes for the cart to travel the 0.8 m distance.
8. Repeat step 5 three time and record the times in the table.
9. Add another 0.5 kg mass to the cart. Repeat steps 5 and 6.
10. Continue adding 0.5 kg masses to the cart and recording the times in the table.
11. Calculate the average time ( $t_{Avg}$ ) for each mass.



Hunter River High School  
ASSESSMENT TASK 2 – YEAR 11 Physics

12. Use the equation  $s = ut + \frac{1}{2}at^2$  to calculate the acceleration of each mass. Make sure you use the  $t_{\text{Avg}}$  value in your calculations.
13. Determine the value of  $1/m_c$  for each the masses.
14. Use the data in your table to construct a graph of  $a$  vs  $1/m_c$ . It would be beneficial to use Google Sheets to construct your graph.
15. Draw a line of best fit and calculate the gradient of the line using rise/run.
16. Compare your value of the gradient to the predicted force using  $W = mg$ .
17. Use the data you collected to write a scientific report.

**Results:**

Mass of Cart (kg)	$m_c$ (kg)	$1/m_c$	Time 1 (s)	Time 2 (s)	Time 3 (s)	$t_{\text{Avg}}$ (s)	$a$ ( $\text{ms}^{-2}$ )
0.5							
1.0							
1.5							
2.0							
2.5							
3.0							

The requirements and structure of the scientific report can be found in the marking criteria. It is important that you seek feedback from your teacher as you write the report. It is also essential that you continually refer to the marking criteria as you progress through the report.



**Hunter River High School**  
**ASSESSMENT TASK 2 – YEAR 11 Physics**

<b>Total</b>	<b>/50</b>
<b>Course Performance Descriptors</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>▪ demonstrates an extensive knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding succinctly, logically, and consistently using correct and precise scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships, explain phenomena, and make predictions</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, valid, and relevant primary and secondary data, and scientific evidence, by applying processes, modelling and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose comprehensive solutions or explanations for scientific issues or scenarios</li> </ul>	<p><b>A (B6)</b></p> <p><b>45-50</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates thorough knowledge and understanding of scientific concepts, including complex and abstract ideas</li> <li>▪ communicates scientific understanding, logically, and effectively using correct scientific terms and application of nomenclature in a variety of formats and wide range of contexts</li> <li>▪ designs and plans investigations to obtain accurate, reliable, valid and relevant primary and secondary data, evaluating risks, mitigating where applicable, and making some modifications in response to new evidence</li> <li>▪ selects, processes, and interprets accurate, reliable, valid, and relevant qualitative and quantitative, primary or secondary data, and represents it using a range of scientific formats to derive trends, show patterns and relationships</li> <li>▪ designs solutions to scientific problems, questions, or hypotheses using selected accurate, reliable, and valid primary and secondary data, and scientific evidence, by applying processes, and formats</li> <li>▪ applies knowledge and information to unfamiliar situations to propose explanations for scientific issues or scenarios</li> </ul>	<p><b>B (B5)</b></p> <p><b>40-45</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates sound knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding effectively using scientific terms and application of nomenclature</li> <li>▪ designs and plans investigations to obtain primary and secondary data and evaluates risks</li> <li>▪ processes and interprets primary and secondary data, and represents it using a range of scientific formats</li> <li>▪ identifies scientific problems, questions, or hypotheses and applies processes, and formats to primary or secondary data</li> <li>▪ applies knowledge and information relevant to scientific issues or scenarios</li> </ul>	<p><b>C (B4)</b></p> <p><b>25-39</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates basic knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using basic scientific terms and application of nomenclature</li> <li>▪ implements scientific processes to obtain primary and secondary data and identifies risks</li> <li>▪ processes primary or secondary data, and represents it using scientific formats</li> <li>▪ responds to scientific problems, questions, or hypotheses</li> <li>▪ recalls scientific knowledge and information</li> </ul>	<p><b>D (B3)</b></p> <p><b>10-24</b></p>
<ul style="list-style-type: none"> <li>▪ demonstrates limited knowledge and understanding of scientific concepts</li> <li>▪ communicates scientific understanding using limited scientific terms</li> <li>▪ partially outlines investigations to obtain data and information</li> <li>▪ provides simple descriptions of scientific phenomena</li> <li>▪ recalls basic scientific knowledge and information</li> </ul>	<p><b>E (B2)</b></p> <p><b>0-9</b></p>



Scientific Report – Marking Criteria

	1	2	3	4
1. Introduction: <b>(11/12-7)</b>	Performed limited or general background research.	Presents background research with some relevance to the subject of investigation.	Presents background research with relevance to the subject of investigation.  Secondary sources are referenced mostly in the correct format.	Presents background research with relevance to the subject of investigation.  Secondary sources are referenced consistently in the correct format.  Information is communicated using effective metalanguage.
2. Aim: <b>(11/12-1)</b>	Aim without independent  OR dependent variable  OR not linked to the hypothesis.	Aim includes independent and dependant variable that is linked to the hypothesis.		
3. Hypothesis: <b>(11/12-2)</b>	Hypothesis without independent OR dependent variable.	Hypothesis includes independent and dependant variable but not linked to aim.	Hypothesis includes independent and dependant variable and is linked to the aim.	
4. Materials and Method: <b>(11/12-2, 11/12-3)</b>	An attempt at describing the materials and method is made.	Some steps of the method are described.  Some equipment is included in the method.	Most steps of the method are described.  Most of the equipment is included in the method.  Evidence of a fair test is present.	Method is described in sufficient detail.  The use of appropriate equipment is included in the method.  Evidence of a fair test is present.

5. Risk Assessment: <b>(11/12-2, 11/12-3)</b>	A hazard is identified	A hazard is identified and a strategy to minimise the risk included.	Multiple hazards identified with a strategy to minimise the risk of each.	
6. Results – Table: <b>(11/12-4)</b>	Some attempt to present data in a table is made.	Data is presented clearly.  Table includes most of the necessary features.	Data is presented clearly.  Table has all correct headings (including units where appropriate).	
7. Results – Graph: <b>(11/12-4)</b>	Some attempt at producing a graph is made.	Most of the features of the graph are present.	The majority of features of the graph are present.	Appropriate type of graph is used.  Axes are scaled correctly and labelled with correct units.  Appropriate data is plotted accurately.
8. Results – Diagrams/Images	The diagrams/images do not assist in understanding the investigation.	The diagrams/images of the investigation assist the reader in understanding the investigation.		
9. Results – Accompanying Text: <b>(11/12-4)</b>	Some attempt to describe the results is made.	Tables, graphs and diagrams are accompanied by text that describes the results.	Tables, graphs and diagrams are accompanied by text that describes the results.  Trends in data are identified.	Tables, graphs and diagrams are accompanied by detailed text that describes the results.  Trends in data are identified.

10. Discussion – Analysis of Data: <b>(11/12-5)</b>	Some attempt is made to explain the results.	The trends identified are explained with some background knowledge.	The trends identified are explained with some background knowledge.  Comparison between hypothesis and results.	The trends identified are explained with detailed background knowledge.  Comparison between hypothesis and results.
11. Discussion – Validity: <b>(11/12-5)</b>	Some reference to variables is made.	Independent and dependent variables are correctly identified.  One control variable identified.	Independent and dependent variables are correctly identified.  Description of how the other variables were kept constant.	Independent and dependent variables are correctly identified.  Detailed description of how the other variables were kept constant.  Evaluation of the validity of the experiment.
12. Discussion – Reliability and Accuracy: <b>(11/12-5)</b>	Some reference to reliability or accuracy is evident.	ONE feature of reliability is discussed in relation to the investigation.  OR  ONE step taken to ensure accuracy is discussed.	ONE feature of reliability is discussed in relation to the investigation.  ONE step taken to ensure accuracy is discussed.	TWO features of reliability are discussed in relation to the investigation.  Steps taken to ensure accuracy are discussed.  Evaluation of the accuracy and reliability of the investigation.



13. Discussion – Suggested Improvements: <b>(11/12-5)</b>	ONE possible improvement to the investigation is made.	ONE possible improvement to the investigation is made.  The improvement is related specifically to validity, reliability or accuracy.	TWO possible improvements to the investigation are made.  Each improvement is related specifically to validity, reliability or accuracy.	THREE possible improvements to the investigation are made.  Each improvement is related specifically to validity, reliability or accuracy.
14. Conclusion: <b>(11/12-1)</b>	Conclusion does not refer to the hypothesis.	Conclusion states if the results support the hypothesis.		
15. References: <b>(11/12-7)</b>	Three or less sources are referenced.	Four to seven sources are referenced.  References are set out in an appropriate format.	Eight or more sources are referenced.  References are set out in an appropriate format.	

# Physics Year 11 Course Content

## Year 11 Course Structure and Requirements

		<b>Modules</b>	<b>Indicative hours</b>	<b>Depth studies</b>
<b>Year 11 course</b> <b>(120 hours)</b>	<b>Working Scientifically Skills</b>	<b>Module 1</b> Kinematics	60	*15 hours in Modules 1–4
		<b>Module 2</b> Dynamics		
		<b>Module 3</b> Waves and Thermodynamics	60	
		<b>Module 4</b> Electricity and Magnetism		

\*15 hours must be allocated to depth studies within the 120 indicative course hours.

## Requirements for Practical Investigations

Scientific investigations include both practical investigations and secondary-sourced investigations. Practical investigations are an essential part of the Year 11 course and must occupy a minimum of 35 hours of course time, including time allocated to practical investigations in depth studies.

Practical investigations include:

- undertaking laboratory experiments, including the use of appropriate digital technologies
- fieldwork.

Secondary-sourced investigations include:

- locating and accessing a wide range of secondary data and/or information
- using and reorganising secondary data and/or information.

## Working Scientifically Skills

It is expected that the content of each skill will be addressed by the end of the Stage 6 course.

## Questioning and Predicting

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation PH11/12-1

### Content

Students:

- develop and evaluate inquiry questions and hypotheses to identify a concept that can be investigated scientifically, involving primary and secondary data (ACSPH001, ACSPH061, ACSPH096) 📄
- modify questions and hypotheses to reflect new evidence ⚙️

## Planning Investigations

### Outcomes

#### A student:

- › designs and evaluates investigations in order to obtain primary and secondary data and information PH11/12-2

### Content

Students:

- assess risks, consider ethical issues and select appropriate materials and technologies when designing and planning an investigation (ACSPH031, ACSPH097) 📄 📄
- justify and evaluate the use of variables and experimental controls to ensure that a valid procedure is developed that allows for the reliable collection of data (ACSPH002)
- evaluate and modify an investigation in response to new evidence ⚙️

## Conducting Investigations

### Outcomes

#### A student:

- › conducts investigations to collect valid and reliable primary and secondary data and information PH11/12-3

### Content

#### Students:

- employ and evaluate safe work practices and manage risks (ACSPH031) 🛠️ ⚡
- use appropriate technologies to ensure and evaluate accuracy 🖥️ 📄
- select and extract information from a wide range of reliable secondary sources and acknowledge them using an accepted referencing style 📖

## Processing Data and Information

### Outcomes

#### A student:

- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media PH11/12-4

### Content

#### Students:

- select qualitative and quantitative data and information and represent them using a range of formats, digital technologies and appropriate media (ACSPH004, ACSPH007, ACSPH064, ACSPH101) 📖 📄
- apply quantitative processes where appropriate 📊
- evaluate and improve the quality of data ⚙️ 📄

## Analysing Data and Information

### Outcomes

#### A student:

- › analyses and evaluates primary and secondary data and information PH11/12-5

### Content

#### Students:

- derive trends, patterns and relationships in data and information
- assess error, uncertainty and limitations in data (ACSPH004, ACSPH005, ACSPH033, ACSPH099) 📊
- assess the relevance, accuracy, validity and reliability of primary and secondary data and suggest improvements to investigations (ACSPH005) ⚙️ 📄

## Problem Solving

### Outcomes

#### A student:

- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes PH11/12-6

### Content

#### Students:

- use modelling (including mathematical examples) to explain phenomena, make predictions and solve problems using evidence from primary and secondary sources (ACSPH006, ACSPH010) ⚙️
- use scientific evidence and critical thinking skills to solve problems ⚙️

## Communicating

### Outcomes

#### A student:

- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose PH11/12-7

### Content

#### Students:

- select and use suitable forms of digital, visual, written and/or oral forms of communication 🗨️ 📺
- select and apply appropriate scientific notations, nomenclature and scientific language to communicate in a variety of contexts (ACSPH008, ACSPH036, ACSPH067, ACSPH102) 🗨️ 📺
- construct evidence-based arguments and engage in peer feedback to evaluate an argument or conclusion (ACSPH034, ACSPH036) 🗨️ ⚙️

## Module 1: Kinematics

### Outcomes

#### A student:

- › designs and evaluates investigations in order to obtain primary and secondary data and information PH11/12- 2
- › conducts investigations to collect valid and reliable primary and secondary data and information PH11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media PH11/12-4
- › analyses and evaluates primary and secondary data and information PH11/12-5
- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes PH11/12-6
- › describes and analyses motion in terms of scalar and vector quantities in two dimensions and makes quantitative measurements and calculations for distance, displacement, speed, velocity and acceleration PH11-8

### Content Focus

Motion is a fundamental observable phenomenon. The study of kinematics involves describing, measuring and analysing motion without considering the forces and masses involved in that motion. Uniformly accelerated motion is described in terms of relationships between measurable scalar and vector quantities, including displacement, speed, velocity, acceleration and time.

Representations – including graphs and vectors, and equations of motion – can be used qualitatively and quantitatively to describe and predict linear motion.

By studying this module, students come to understand that scientific knowledge enables scientists to offer valid explanations and make reliable predictions, particularly in regard to the motion of an object.

### Working Scientifically

In this module, students focus on designing, evaluating and conducting investigations to examine trends in data and solve problems related to kinematics. Students should be provided with opportunities to engage with all the Working Scientifically skills throughout the course.





### Content

#### Motion in a Straight Line

**Inquiry question:** How is the motion of an object moving in a straight line described and predicted?

Students:








- describe uniform straight-line (rectilinear) motion and uniformly accelerated motion through:
  - qualitative descriptions
  - the use of scalar and vector quantities (ACSPH060)
- conduct a practical investigation to gather data to facilitate the analysis of instantaneous and average velocity through:
  - quantitative, first-hand measurements
  - the graphical representation and interpretation of data (ACSPH061)

- calculate the relative velocity of two objects moving along the same line using vector analysis
- conduct practical investigations, selecting from a range of technologies, to record and analyse the motion of objects in a variety of situations in one dimension in order to measure or calculate:  
  - time
  - distance
  - displacement
  - speed
  - velocity
  - acceleration
- use mathematical modelling and graphs, selected from a range of technologies, to analyse and derive relationships between time, distance, displacement, speed, velocity and acceleration in rectilinear motion, including:
  - $s = ut + \frac{1}{2}at^2$
  - $v = u + at$
  - $v^2 = u^2 + 2as$  (ACSPH061)  

## Motion on a Plane

**Inquiry question:** How is the motion of an object that changes its direction of movement on a plane described?

Students:

- analyse vectors in one and two dimensions to:
  - resolve a vector into two perpendicular components
  - add two perpendicular vector components to obtain a single vector (ACSPH061) 
- represent the distance and displacement of objects moving on a horizontal plane using:
  - vector addition
  - resolution of components of vectors (ACSPH060)  
- describe and analyse algebraically, graphically and with vector diagrams, the ways in which the motion of objects changes, including: 
  - velocity
  - displacement (ACSPH060, ACSPH061) 
- describe and analyse, using vector analysis, the relative positions and motions of one object relative to another object on a plane (ACSPH061)
- analyse the relative motion of objects in two dimensions in a variety of situations, for example:
  - a boat on a flowing river relative to the bank
  - two moving cars
  - an aeroplane in a crosswind relative to the ground (ACSPH060, ACSPH132)  

## Module 2: Dynamics

### Outcomes

#### A student:

- › designs and evaluates investigations in order to obtain primary and secondary data and information PH11/12-2
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media PH11/12-4
- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes PH11/12-6
- › describes and explains events in terms of Newton's Laws of Motion, the law of conservation of momentum and the law of conservation of energy PH11-9

### Content Focus

The relationship between the motion of objects and the forces that act on them is often complex. However, Newton's Laws of Motion can be used to describe the effect of forces on the motion of single objects and simple systems. This module develops the key concept that forces are always produced in pairs that act on different objects and add to zero.

By applying Newton's laws directly to simple systems, and, where appropriate, the law of conservation of momentum and law of conservation of mechanical energy, students examine the effects of forces. They also examine the interactions and relationships that can occur between objects by modelling and representing these using vectors and equations.

In many situations, within and beyond the discipline of physics, knowing the rates of change of quantities provides deeper insight into various phenomena. In this module, the rates of change of displacement, velocity and energy are of particular significance and students develop an understanding of the usefulness and limitations of modelling.

### Working Scientifically

In this module, students focus on designing, evaluating and conducting investigations and interpreting trends in data to solve problems related to dynamics. Students should be provided with opportunities to engage with all the Working Scientifically skills throughout the course.

### Content







#### Forces

**Inquiry question:** How are forces produced between objects and what effects do forces produce?

Students:

- using Newton's Laws of Motion, describe static and dynamic interactions between two or more objects and the changes that result from:
  - a contact force
  - a force mediated by fields













- explore the concept of net force and equilibrium in one-dimensional and simple two-dimensional contexts using: (ACSPH050)  
  - algebraic addition
  - vector addition
  - vector addition by resolution into components
- solve problems or make quantitative predictions about resultant and component forces by applying the following relationships:  
  - $\vec{F}_{AB} = -\vec{F}_{BA}$
  - $F_x = F\cos\theta, F_y = F\sin\theta$
- conduct a practical investigation to explain and predict the motion of objects on inclined planes (ACSPH098)  

## Forces, Acceleration and Energy

**Inquiry question:** How can the motion of objects be explained and analysed?

Students:

- apply Newton's first two laws of motion to a variety of everyday situations, including both static and dynamic examples, and include the role played by friction  $\vec{f}_{\text{friction}} = \mu\vec{F}_N$  (ACSPH063) 
- investigate, describe and analyse the acceleration of a single object subjected to a constant net force and relate the motion of the object to Newton's Second Law of Motion through the use of: (ACSPH062, ACSPH063)
  - qualitative descriptions 
  - graphs and vectors  
  - deriving relationships from graphical representations including  $\vec{F}_{\text{net}} = m\vec{a}$  and relationships of uniformly accelerated motion  
- apply the special case of conservation of mechanical energy to the quantitative analysis of motion involving:  
  - work done and change in the kinetic energy of an object undergoing accelerated rectilinear motion in one dimension  $W = F_{\parallel}s = F\cos\theta$
  - changes in gravitational potential energy of an object in a uniform field  $\Delta U = mg\Delta h$
- conduct investigations over a range of mechanical processes to analyse qualitatively and quantitatively the concept of average power  $P = \frac{\Delta E}{\Delta t}, P = F_{\parallel}v = Fv\cos\theta$  including but not limited to:  
  - uniformly accelerated rectilinear motion
  - objects raised against the force of gravity
  - work done against air resistance, rolling resistance and friction

## Momentum, Energy and Simple Systems

**Inquiry question:** How is the motion of objects in a simple system dependent on the interaction between the objects?

Students:

- conduct an investigation to describe and analyse one-dimensional (collinear) and two-dimensional interactions of objects in simple closed systems (ACSPH064) ⚙️
- analyse quantitatively and predict, using the law of conservation of momentum  

$$\sum m \vec{v}_{\text{before}} = \sum m \vec{v}_{\text{after}}$$
 and, where appropriate, conservation of kinetic energy  

$$\sum \frac{1}{2} m v_{\text{before}}^2 = \sum \frac{1}{2} m v_{\text{after}}^2$$
, the results of interactions in elastic collisions (ACSPH066) 🖨️ 📱
- investigate the relationship and analyse information obtained from graphical representations of force as a function of time
- evaluate the effects of forces involved in collisions and other interactions, and analyse quantitatively the interactions using the concept of impulse  

$$\Delta \vec{p} = \vec{F}_{\text{net}} \Delta t$$
 🖨️ 📱
- analyse and compare the momentum and kinetic energy of elastic and inelastic collisions (ACSPH066) 🖨️ 📱

## Module 3: Waves and Thermodynamics

### Outcomes

#### A student:

- › conducts investigations to collect valid and reliable primary and secondary data and information PH11/12-3
- › selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media PH11/12-4
- › solves scientific problems using primary and secondary data, critical thinking skills and scientific processes PH11/12-6
- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose PH11/12-7
- › explains and analyses waves and the transfer of energy by sound, light and thermodynamic principles PH11-10

### Content Focus

Wave motion involves the transfer of energy without the transfer of matter. By exploring the behaviour of wave motion and examining the characteristics of wavelength, frequency, period, velocity and amplitude, students further their understanding of the properties of waves. They are then able to demonstrate how waves can be reflected, refracted, diffracted and superposed (interfered) and to develop an understanding that not all waves require a medium for their propagation. Students examine mechanical waves and electromagnetic waves, including their similarities and differences.

Students also examine energy and its transfer, in the form of heat, from one place to another. Thermodynamics is the study of the relationship between energy, work, temperature and matter. Understanding this relationship allows students to appreciate particle motion within objects. Students have the opportunity to examine how hot objects lose energy in three ways: first, by conduction, and, second, by convection – which both involve the motion of particles; and, third, the emission of electromagnetic radiation. An understanding of thermodynamics is a pathway to understanding related concepts in many fields involving Science, Technology, Engineering and Mathematics (STEM).

### Working Scientifically

In this module, students focus on conducting investigations, collecting and processing data and information, interpreting trends in data and communicating scientific ideas about waves and thermodynamics. Students should be provided with opportunities to engage with all the Working Scientifically skills throughout the course.

## Content

### Wave Properties

**Inquiry question:** What are the properties of all waves and wave motion?

Students:

- conduct a practical investigation involving the creation of mechanical waves in a variety of situations in order to explain: ✨
  - the role of the medium in the propagation of mechanical waves
  - the transfer of energy involved in the propagation of mechanical waves (ACSPH067, ACSPH070)
- conduct practical investigations to explain and analyse the differences between: ✨
  - transverse and longitudinal waves (ACSPH068)
  - mechanical and electromagnetic waves (ACSPH070, ACSPH074)
- construct and/or interpret graphs of displacement as a function of time and as a function of position of transverse and longitudinal waves, and relate the features of those graphs to the following wave characteristics:
  - velocity
  - frequency
  - period
  - wavelength
  - displacement and amplitude (ACSPH069) 🖨️ 📄
- solve problems and/or make predictions by modelling and applying the following relationships to a variety of situations: 🖨️ 📄
  - $v = f\lambda$
  - $f = \frac{1}{T}$

### Wave Behaviour

**Inquiry question:** How do waves behave?



Students:

- explain the behaviour of waves in a variety of situations by investigating the phenomena of:
  - reflection
  - refraction
  - diffraction
  - wave superposition (ACSPH071, ACSPH072)
- conduct an investigation to distinguish between progressive and standing waves (ACSPH072)
- conduct an investigation to explore resonance in mechanical systems and the relationships between: ✨
  - driving frequency
  - natural frequency of the oscillating system
  - amplitude of motion
  - transfer/transformation of energy within the system (ACSPH073) 🖨️ 📄

## Sound Waves

**Inquiry question:** What evidence suggests that sound is a mechanical wave?





Students:

- conduct a practical investigation to relate the pitch and loudness of a sound to its wave characteristics
- model the behaviour of sound in air as a longitudinal wave
- relate the displacement of air molecules to variations in pressure (ACSPH070)
- investigate quantitatively the relationship between distance and intensity of sound
- conduct investigations to analyse the reflection, diffraction, resonance and superposition of sound waves (ACSPH071)
- investigate and model the behaviour of standing waves on strings and/or in pipes to relate quantitatively the fundamental and harmonic frequencies of the waves that are produced to the physical characteristics (eg length, mass, tension, wave velocity) of the medium (ACSPH072) 
- analyse qualitatively and quantitatively the relationships of the wave nature of sound to explain: 
  - beats  $f_{\text{beat}} = |f_2 - f_1|$
  - the Doppler effect  $f' = f \frac{(v_{\text{wave}} + v_{\text{observer}})}{(v_{\text{wave}} - v_{\text{source}})}$

## Ray Model of Light

**Inquiry question:** What properties can be demonstrated when using the ray model of light?

Students:

- conduct a practical investigation to analyse the formation of images in mirrors and lenses via reflection and refraction using the ray model of light (ACSPH075)
- conduct investigations to examine qualitatively and quantitatively the refraction and total internal reflection of light (ACSPH075, ACSPH076)
- predict quantitatively, using Snell's Law, the refraction and total internal reflection of light in a variety of situations 
- conduct a practical investigation to demonstrate and explain the phenomenon of the dispersion of light 
- conduct an investigation to demonstrate the relationship between inverse square law, the intensity of light and the transfer of energy (ACSPH077)
- solve problems or make quantitative predictions in a variety of situations by applying the following relationships to:  
  - $n_x = \frac{c}{v_x}$  – for the refractive index of medium  $x$ ,  $v_x$  is the speed of light in the medium
  - $n_1 \sin \theta_1 = n_2 \sin \theta_2$  (Snell's Law)
  - $\sin \theta_c = \frac{n_2}{n_1}$
  - $I_1 r_1^2 = I_2 r_2^2$  – to compare the intensity of light at two points,  $r_1$  and  $r_2$

## Thermodynamics

**Inquiry question:** How are temperature, thermal energy and particle motion related? ⚙️

Students:

- explain the relationship between the temperature of an object and the kinetic energy of the particles within it (ACSPH018)
- explain the concept of thermal equilibrium (ACSPH022)
- analyse the relationship between the change in temperature of an object and its specific heat capacity through the equation  $Q = mc\Delta T$  (ACSPH020)
- investigate energy transfer by the process of:
  - conduction
  - convection
  - radiation (ACSPH016)
- conduct an investigation to analyse qualitatively and quantitatively the latent heat involved in a change of state
- model and predict quantitatively energy transfer from hot objects by the process of thermal conductivity ⚙️
- apply the following relationships to solve problems and make quantitative predictions in a variety of situations: 🖨️ 📄
  - $Q = mc\Delta T$ , where  $c$  is the specific heat capacity of a substance
  - $\frac{Q}{t} = \frac{kA\Delta T}{d}$  where  $k$  is the thermal conductivity of a material

## Module 4: Electricity and Magnetism

### Outcomes

#### A student:

- › develops and evaluates questions and hypotheses for scientific investigation PH11/12-1
- › analyses and evaluates primary and secondary data and information PH11/12-5
- › communicates scientific understanding using suitable language and terminology for a specific audience or purpose PH11/12-7
- › explains and quantitatively analyses electric fields, circuitry and magnetism PH11-11

### Content Focus

Atomic theory and the laws of conservation of energy and electric charge are unifying concepts in understanding the electrical and magnetic properties and behaviour of matter. Interactions resulting from these properties and behaviour can be understood and analysed in terms of electric fields represented by lines. Students use these representations and mathematical models to make predictions about the behaviour of objects, and explore the limitations of the models.

Students also examine how the analysis of electrical circuits' behaviour and the transfer and conversion of energy in electrical circuits has led to a variety of technological applications.

### Working Scientifically




In this module, students focus on developing questions and hypotheses, processing and analysing trends and patterns in data, and communicating ideas about electricity and magnetism. Students should be provided with opportunities to engage with all the Working Scientifically skills throughout the course.



### Content

#### Electrostatics

**Inquiry question:** How do charged objects interact with other charged objects and with neutral objects?

Students:











- conduct investigations to describe and analyse qualitatively and quantitatively:  
  - processes by which objects become electrically charged (ACSPH002)
  - the forces produced by other objects as a result of their interactions with charged objects (ACSPH103)
  - variables that affect electrostatic forces between those objects (ACSPH103)
- using the electric field lines representation, model qualitatively the direction and strength of electric fields produced by:
  - simple point charges
  - pairs of charges
  - dipoles
  - parallel charged plates 

- apply the electric field model to account for and quantitatively analyse interactions between charged objects using:  
  - $\vec{F} = q\vec{E}$  (ACSPH103, ACSPH104)
  - $E = \frac{V}{d}$
  - $F = \frac{1}{4\pi\epsilon_0} \frac{q_1q_2}{r^2}$  (ACSPH102)
- analyse the effects of a moving charge in an electric field, in order to relate potential energy, work and equipotential lines, by applying: (ACSPH105)
  - $V = \frac{\Delta U}{q}$ , where  $U$  is potential energy and  $q$  is the charge

## Electric Circuits

**Inquiry question:** How do the processes of the transfer and the transformation of energy occur in electric circuits?

Students:








- investigate the flow of electric current in metals and apply models to represent current, including:
  - $I = \frac{q}{t}$  (ACSPH038)  
- investigate quantitatively the current–voltage relationships in ohmic and non-ohmic resistors to explore the usefulness and limitations of Ohm’s Law using:
  - $W = qV$
  - $V = IR$  (ACSPH003, ACSPH041, ACSPH043)  
- investigate quantitatively and analyse the rate of conversion of electrical energy in components of electric circuits, including the production of heat and light, by applying  $P = VI$  and  $E = Pt$  and variations that involve Ohm’s Law (ACSPH042)  
- investigate qualitatively and quantitatively series and parallel circuits to relate the flow of current through the individual components, the potential differences across those components and the rate of energy conversion by the components to the laws of conservation of charge and energy, by deriving the following relationships: (ACSPH038, ACSPH039, ACSPH044)  
  - $\Sigma I = 0$  (Kirchhoff’s current law – conservation of charge)
  - $\Sigma V = 0$  (Kirchhoff’s voltage law – conservation of energy)
  - $R_{\text{Series}} = R_1 + R_2 + \dots + R_n$
  - $\frac{1}{R_{\text{Parallel}}} = \frac{1}{R_1} + \frac{1}{R_2} + \dots + \frac{1}{R_n}$
- investigate quantitatively the application of the law of conservation of energy to the heating effects of electric currents, including the application of  $P = VI$  and variations of this involving Ohm’s Law (ACSPH043)  



## Magnetism

**Inquiry question:** How do magnetised and magnetic objects interact?

Students:

- investigate and describe qualitatively the force produced between magnetised and magnetic materials in the context of ferromagnetic materials (ACSPH079)
- use magnetic field lines to model qualitatively the direction and strength of magnetic fields produced by magnets, current-carrying wires and solenoids and relate these fields to their effect on magnetic materials that are placed within them (ACSPH083) 
- conduct investigations into and describe quantitatively the magnetic fields produced by wires and solenoids, including: (ACSPH106, ACSPH107)
  - $B = \frac{\mu_0 I}{2\pi r}$   
  - $B = \frac{\mu_0 NI}{L}$   
- investigate and explain the process by which ferromagnetic materials become magnetised (ACSPH083)
- apply models to represent qualitatively and describe quantitatively the features of magnetic fields  



**Sport,  
Lifestyle &  
Recreation**

## Sport, Lifestyle and Recreation: Preliminary

### Assessment schedule (Term 1, 2024 - Term 3, 2025)

Syllabus Components	Syllabus Weighting	Task 1:	Task 2:	Task 3:
		Athletics	Outdoor Recreation	Yearly Examination
		Term 1 Week 11	Term 2 Week 7	Term 3 Week 9/10
<b>Outcomes</b>		1.1,1.3,2.3, 3.3	1.1, 1.3, 1.4, 2.3, 3.6, 4.1, 4.2, 4.4	1.1,1.2,1.4,1.6, 2.1,2.2,2.5, 3.1, 3.3,3.6,4.5
Knowledge and understanding of course content	50%	15%	15%	20%
Skills in critical thinking, research, analysing and communicating	50%	20%	20%	10%
<b>Total</b>	<b>100%</b>	<b>35%</b>	<b>35%</b>	<b>30%</b>

#### Outcomes:

- 1.1 applies the rules and conventions that relate to participation in a range of physical activities
- 1.2 explains the relationship between physical activity, fitness and healthy lifestyle
- 1.3 demonstrates ways to enhance safety in physical activity
- 1.4 investigates and interprets the patterns of participation in sport and physical activity in Australia
- 1.6 describes administrative procedures that support successful performance outcomes
- 2.1 explains the principles of skill development and training
- 2.2 analyses the fitness requirements of specific activities
- 2.3 selects and participates in physical activities that meet individual needs, interests and abilities
- 2.5 describes the relationship between anatomy, physiology and performance
- 3.1 selects appropriate strategies and tactics for success in a range of movement contexts
- 3.2 designs programs that respond to performance needs
- 3.3 measures and evaluates physical performance capacity
- 3.6 assesses and responds appropriately to emergency care situations
- 4.1 plans strategies to achieve performance goals
- 4.2 demonstrates leadership skills and a capacity to work cooperatively in movement contexts
- 4.4 demonstrates competence and confidence in movement contexts
- 4.5 recognises the skills and abilities required to adopt roles that support health, safety and physical activity

**Sport, Lifestyle and Recreation 2025 – Scope and Sequence**

**Preliminary Course**

<b>11SLR 2023</b>	<b>Week 1</b>	<b>Week 2</b>	<b>Week 3</b>	<b>Week 4</b>	<b>Week 5</b>	<b>Week 6</b>	<b>Week 7</b>	<b>Week 8</b>	<b>Week 9</b>	<b>Week 10</b>	<b>Week 11</b>
<b>Term 1 Theory</b>	<b>Athletics</b>										
<b>Term 1 Practical</b>	<b>Athletics</b>										
<b>Term 2 Theory</b>	<b>Games and Sports Application 1</b>										
<b>Term 2 Practical</b>	<b>Games and Sports Application 1 (Invasion Games)</b>										
<b>Term 3 Theory</b>	<b>Healthy Lifestyles</b>										
<b>Term 3 Practical</b>	<b>Games and Sports Application 2</b>										



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Sport, Lifestyle & Recreation (SLR)
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Athletics
<b>Date Issued:</b>	Week 6 (Monday 3 March 2025)
<b>Date and Time Due:</b>	Week 11 (Monday 7 April 2025)
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Part A (no) Part B (yes)
<b>Presentation and Submission Guidelines:</b>	All students are required to submit Part A of their task via email to their respective teacher. Mrs Dixon ( <a href="mailto:trudy.dixon@det.nsw.edu.au">trudy.dixon@det.nsw.edu.au</a> ) or Miss Barton ( <a href="mailto:georgia.barton@det.nsw.edu.au">georgia.barton@det.nsw.edu.au</a> )
<b>Marking Process:</b>	Students' practical activity will be recorded and utilised for marking purposes. All assessments will be marked by the Class Teacher.

Outcomes Assessed:	
Syllabus Code	Syllabus Description
1.1	Applies the rules and conventions that relate to participation in a range of physical activities
1.3	Demonstrates ways to enhance safety in physical activity
2.3	Elects and participates in physical activities that meet individual needs, interests and abilities
3.3	Measures and evaluates physical performance capacity

Participant Declaration:
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____

**Task Description:**

Students are required to complete two parts for Assessment Task 1.

**Part A (15 marks)**

Students are required to submit a written response on identifying the appropriate steps and safety precautions when coordinating a javelin throwing event for a class of year 11 students.

You must identify the following in your response:

- Rules and Equipment utilised
- Safety procedures
- Appropriate techniques

**Part B (15 marks)**

Students are required to participate in a javelin field event throw. All students must attempt to throw a javelin three consecutive times utilising the technique learned in SLR practical and theoretical lessons. Students will be assessed on their overall javelin throw technique, rather than their javelin throw distance.

**Success Criteria:****Part A:**

In order to be successful students, need to complete and submit a digital copy of their report and must include all relevant information by the allocated time and date.

**Part B:**

In order to be successful students must be able to successfully perform 3 throws of a javelin with proper technique and without faulting.

**Part A: Written report**

Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Identifies all rules, equipment required and safety precautions in a javelin throwing event. Describes the appropriate throwing event techniques</li> </ul>	13-15
<ul style="list-style-type: none"> <li>Identifies the rules of a javelin throwing event, the equipment required to run the event and identifies the appropriate safety procedures, but fails to identify the appropriate throwing techniques</li> </ul>	8-12
<ul style="list-style-type: none"> <li>Identifies the basic rules of a javelin throwing event and the equipment required to run the event but fails to identify appropriate safety procedures and throwing techniques</li> </ul>	4-7
<ul style="list-style-type: none"> <li>Identifies a throwing event and the rules <b>OR</b> identifies the equipment used <b>OR</b> the safety procedures <b>OR</b> the appropriate techniques</li> </ul>	1-3
<ul style="list-style-type: none"> <li>Non-serious attempt</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>Failed to submit</li> </ul>	0

**Part B: Practical**

Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>Throws at least two legal javelin throws and demonstrates an effective grip.</li> <li>Begins the run-up by raising the javelin above eye level and has the throwing arm parallel with the ground ensuring elbow is slightly bent.</li> <li>Begins the approach run with high hips and legs crossing over throughout the run up.</li> <li>The javelin is released with the appropriate foot forward allowing hips and body to turn towards the direction of the throw.</li> <li>The javelin is released at an appropriate angle.</li> </ul>	13-15
<ul style="list-style-type: none"> <li>Throws at least one legal javelin throw and demonstrates an effective grip and run-up before releasing the javelin.</li> <li>Throughout the run up the legs cross over, and the javelin is raised above eye level with the throwing arm parallel to the ground</li> </ul>	8-12
<ul style="list-style-type: none"> <li>Attempts to throw javelin to a satisfactory standard and throws at least one legal throw. Demonstrates an appropriate grip and the run-up is sufficient</li> </ul>	4-7
<ul style="list-style-type: none"> <li>Attempts to throw the javelin however is fouled on three consecutive throws (<i>E.g. foot foul, javelin lands tail first, or javelin doesn't land in field of play</i>)</li> </ul>	1-3
<ul style="list-style-type: none"> <li>Non-serious attempt</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>Failed to submit</li> </ul>	0
<b>Feedback:</b>	



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Sport, Lifestyle & Recreation (SLR)
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	Games and Sports Application 1
<b>Date Issued:</b>	TBA
<b>Date and Time Due:</b>	Term 1 Week 7
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	One period
<b>Presentation and Submission Guidelines:</b>	Practical Task to be completed during class
<b>Marking Process:</b>	All assessments will be co-marked by the SLR teachers. The same marking rubric will be used for both sports

**Outcomes Assessed:**

<b>Syllabus Code</b>	<b>Syllabus Description</b>
<b>1.1</b>	Applies the rules and conventions that relate to participation in a range of physical activities
<b>3.1</b>	Selects appropriate strategies and tactics for success in a range of movement contexts
<b>4.1</b>	Plans strategies to achieve performance goals
<b>4.4</b>	Demonstrates competence and confidence in movement contexts

**Participant Declaration:**

I declare that I have participated in this practical assessment task, to the best of my ability.

*Participants Signature:* \_\_\_\_\_



**Task Description:**

Students have been studying and participating in a number of international sports in the Games and Sports Application I unit. Students will be assessed on their skills in a practical performance in two sports.

**TASK**

Students will be required to participate in the sports of Touch Football and European Handball. Two games will be organised by the classroom teacher during one practical lesson with each game to run for approximately 25 mins. Teams will be assigned at random by the classroom teacher and will vary in size according to numbers present on the day.

Students will be assessed on the following:

- 1. Application of the rules and conventions that relate to the sport**
- 2. Appropriate strategies and tactics for success in the sport**
- 3. Demonstration of competence and confidence in the sport**

Students can use Australian resources available online such as the European Handball Federation and Touch Football Australia to assist in rules, conventions, strategies and tactics in preparation for this task

**Success Criteria:**

In order to be successful, students need to actively participate in both sports during the allocated SLR period. Students need to demonstrate a clear understanding of the rules and conventions of both sports, employ effective strategies and tactics suitable for achieving success in the sports and display a high level of skill proficiency and confidence in executing fundamental techniques of play.

## Sport 1: Touch Football

Through the completion of this task, students have demonstrated the ability to:

<b>Marking Guidelines: Application of the rules and conventions that relate to the sport</b>	<b>Marks</b>
1.1 applies the rules and conventions that relate to participation in a range of physical activities	
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and understanding of the rules and conventions</li> <li>• Demonstrates extensive application of the rules and conventions related to the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding of the rules and conventions</li> <li>• Demonstrates thorough application of the rules and conventions related to the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and understanding of the rules and conventions</li> <li>• Demonstrates sound application of the rules and conventions related to the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>• Demonstrates basic knowledge and understanding of the rules and/or conventions of the sport</li> </ul>	1-2
<ul style="list-style-type: none"> <li>• Non-serious attempt</li> </ul>	0
<b>Marking Guidelines: Appropriate strategies and tactics for success in the sport.</b>	<b>Marks</b>
3.1 selects appropriate strategies and tactics for success in a range of movement contexts	
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and understanding about the strategies and tactics</li> <li>• Creates and exploits space perfectly, often creating opportunities for teammates</li> <li>• Anticipates ball movement with precision and consistently positions oneself optimally for attacking or defensive plays</li> <li>• Demonstrates extensive application of strategies and tactics for success in the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding about the strategies and tactics</li> <li>• Creates space strategically and maintains it well throughout the game</li> <li>• Anticipates ball movement effectively and consistency positions oneself in advantageous attacking or defensive positions</li> <li>• Demonstrates thorough application of strategies and tactics for success in the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and understanding about the strategies and tactics</li> <li>• Creates space effectively and maintains it when necessary</li> <li>• Demonstrates good anticipation of ball movement and generally moves to effective attacking or defensive positions in a timely manner</li> <li>• Demonstrates sound application of strategies and tactics for success in the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>• Demonstrates strategies and/or tactics of the sport</li> </ul>	1-2

<ul style="list-style-type: none"> <li>Occasionally creates space</li> <li>Shows little anticipation of ball movement and struggles to move to effective attacking or defensive positions</li> </ul>	
<ul style="list-style-type: none"> <li>Non-serious attempt</li> </ul>	0
<b>Marking Guidelines: Demonstration of competence and confidence in the sport</b> 4.4 demonstrates competence and confidence in movement contexts	
<ul style="list-style-type: none"> <li>Demonstrates extensive knowledge and understanding about the movement contexts</li> <li>Demonstrates extensive application of competence and confidence in the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>Demonstrates thorough knowledge and understanding about the movement contexts</li> <li>Demonstrates thorough application of competence and confidence in the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>Demonstrates sound knowledge and understanding about the movement contexts</li> <li>Demonstrates sound application of competence and confidence in the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>Demonstrates some competence and/or confidence in the sport</li> </ul>	1-2
<ul style="list-style-type: none"> <li>Non-serious attempt</li> </ul>	0

## Sport 2: European Handball

Through the completion of this task, students have demonstrated the ability to:

<b>Marking Guidelines: Application of the rules and conventions that relate to the sport</b>	<b>Marks</b>
1.1 applies the rules and conventions that relate to participation in a range of physical activities	
<ul style="list-style-type: none"> <li>Demonstrates extensive knowledge and understanding of the rules and conventions</li> <li>Demonstrates extensive application of the rules and conventions related to the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>Demonstrates thorough knowledge and understanding of the rules and conventions</li> <li>Demonstrates thorough application of the rules and conventions related to the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>Demonstrates sound knowledge and understanding of the rules and conventions</li> <li>Demonstrates sound application of the rules and conventions related to the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>Demonstrates basic knowledge and understanding of the rules and/or conventions of the sport</li> </ul>	1-2
<ul style="list-style-type: none"> <li>Non-serious attempt</li> </ul>	0

<b>Marking Guidelines: Appropriate strategies and tactics for success in the sport.</b> 3.1 selects appropriate strategies and tactics for success in a range of movement contexts	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and understanding about the strategies and tactics</li> <li>• Creates and exploits space perfectly, often creating opportunities for teammates</li> <li>• Anticipates ball movement with precision and consistently positions oneself optimally for attacking or defensive plays</li> <li>• Demonstrates extensive application of strategies and tactics for success in the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding about the strategies and tactics</li> <li>• Creates space strategically and maintains it well throughout the game</li> <li>• Anticipates ball movement effectively and consistency positions oneself in advantageous attacking or defensive positions</li> <li>• Demonstrates thorough application of strategies and tactics for success in the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and understanding about the strategies and tactics</li> <li>• Creates space effectively and maintains it when necessary</li> <li>• Demonstrates good anticipation of ball movement and generally moves to effective attacking or defensive positions in a timely manner</li> <li>• Demonstrates sound application of strategies and tactics for success in the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>• Demonstrates strategies and/or tactics of the sport</li> <li>• Occasionally creates space</li> <li>• Shows little anticipation of ball movement and struggles to move to effective attacking or defensive positions</li> </ul>	1-2
<ul style="list-style-type: none"> <li>• Non-serious attempt</li> </ul>	0
<b>Marking Guidelines: Demonstration of competence and confidence in the sport</b> 4.4 demonstrates competence and confidence in movement contexts	
<ul style="list-style-type: none"> <li>• Demonstrates extensive knowledge and understanding about the movement contexts</li> <li>• Demonstrates extensive application of competence and confidence in the sport</li> </ul>	5
<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding about the movement contexts</li> <li>• Demonstrates thorough application of competence and confidence in the sport</li> </ul>	4
<ul style="list-style-type: none"> <li>• Demonstrates sound knowledge and understanding about the movement contexts</li> <li>• Demonstrates sound application of competence and confidence in the sport</li> </ul>	3
<ul style="list-style-type: none"> <li>• Demonstrates some competence and/or confidence in the sport</li> </ul>	1-2



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 SLR
<b>Teacher:</b>	Mrs Dixon and Miss Barton
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Yearly Exam
<b>Date Issued:</b>	Term 3, Week 9/10
<b>Date and Time Due:</b>	Term 3, Week 9/10
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Class time will be allocated to unpack the task.
<b>Presentation and Submission Guidelines:</b>	This task will be completed during the exam period.
<b>Marking Process:</b>	This task will be marked by the class teachers.

<b>Outcomes Assessed:</b>	
1.1	applies the rules and conventions that relate to participation in a range of physical activities
1.2	explains the relationship between physical activity, fitness and healthy lifestyle
1.4	investigates and interprets the patterns of participation in sport and physical activity in Australia
1.6	describes administrative procedures that support successful performance outcomes
2.1	explains the principles of skill development and training
2.2	analyses the fitness requirements of specific activities
2.5	describes the relationship between anatomy, physiology and performance
3.1	selects appropriate strategies and tactics for success in a range of movement contexts
3.3	measures and evaluates physical performance capacity
3.6	assesses and responds appropriately to emergency care situations
4.5	recognises the skills and abilities required to adopt roles that support health, safety and physical activity

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____



# Visual Arts

# Visual Arts

Syllabus Outcomes	Syllabus Component Weight	<b>Task 1: Developing Practice</b>	<b>Task 2: Exploring Representation</b>	<b>Task 3: Written Examination</b>
		Documented Forms: 'Vanitas' (Body Of Work + VAPD)	Body Of Work + VAPD: Artworks exploring historical and contemporary representations of the body, including the seminal artworks annotated to account for historical changes in the representation of the body over time.	Art Criticism and Art History written examination.
		Written Task: Conceptual Framework response		
		<b>Date:</b> Term 1 Week 10	<b>Date:</b> Term 2 Week 9	<b>Date:</b> Term 3 Week 9/10
<b>Outcomes:</b> P1, 2, 3, 4, 8	<b>Outcomes:</b> P1, 2, 3, 10	<b>Outcomes:</b> P 7, 8, 9, 10		
<b>TASK WEIGHTINGS</b>				
Art making	50%	20%	30%	
Art Criticism & Art History	50%	10%	10%	30%
<b>Total</b>	<b>100%</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

## Outcomes

### **A student:**

- P1 explores the conventions of practice in art making
- P2 explores the roles and relationships between the concepts of artist, artwork, world and audience
- P3 identifies the frames as the basis of understanding expressive representation through the making of art
- P4 investigates subject matter and forms as representations in art making
- P5 investigates ways of developing coherence and layers of meaning in the making of art
- P6 explores a range of material techniques in ways that support artistic intentions
- P7 explores the conventions of practice in art criticism and art history
- P8 explores the roles and relationships between concepts or artist, artwork, world and audience through critical and historical investigations of art
- P9 identifies the frames as the basis of exploring different orientation to critical and historical investigations of art
- P10 explores ways in which significant art histories, critical narratives and other documentary accounts of the visual arts can be construed

Preliminary VISUAL ARTS 2025

Term 1 2025 -Artist Practice – The Vanitas	Term 2 2025 -The Body	Term 3 2025 – Australian Female Modernists
<p><b>CRITICAL / HISTORICAL</b>  <b>The frames</b>  <b>The conceptual framework</b>  <b>Artist Practice</b></p> <p><b>Vanitas – Historical Flemish and Dutch</b>            Holbien The Ambassadors            Jan Davidsz De Heem Still Life with Fruit  <b>Modern</b>            Picasso Still Life with Skull, Leeks and Pitcher            Kahlo 'Viva La Vida',  <b>Vanitas Contemporary Context</b>            Audrey Flack Marilyn 1977            Doris Salcedo Atrabiliarios            Victoria Ivanova "Pear works"            Thomas Vailly "Hair works"            Damien Hirst "for the love of God"</p> <p><b>Iconic Skulls</b>            Braque Denying Death            Cezanne The Three Skulls            Ricky Swallow – 'Everything is Nothing'            Warhol - Skull  <b>Hirst - For the Love of God</b>            O'Keeffe – Cow Skull with Calico Roses            Quilty - Skull RM            Van Gogh- Skull 1887</p> <p>The Art of Death</p>	<p><b>CRITICAL / HISTORICAL</b>  <b>The frames</b>  <b>The conceptual framework</b></p> <p><b>Case Study</b>  <b>How the human figure has changed through Art History</b>            Prehistoric Art -Venus of Willendorf            Myron -The Discus Thrower            Michelangelo -Sistine Chapel – Creation of Adam            Picasso – "Les Demoiselles d'Avignon"            Matisse "The Dance"</p> <p><b>Contemporary Context</b>            Janine Anonti "Lick and Lather"            Orlan "The Reincarnation of Saint Orlan"            Wendy Sharpe "Diane of Erkinville"            John Muick "Boy"</p>	<p><b>CRITICAL / HISTORICAL</b>  <b>The frames</b>  <b>The conceptual framework</b></p> <p><b>Case Study</b>  <b>Australian Female Modernism</b>            Margaret Preston "Cowan Creek, from Berowra"            Grace Cossington Smith "The Red Room".            Dorrit Black            (Georgia O'Keeffe American Context)</p> <p><b>Contemporary Context</b>            Constance Stokes            Rosalie Gascoigne "Scrub Country 1981"            Del Kathryn Barton            Janet Lawrence 'Memory of Nature'</p> <p><b>Exam preparation</b>            Essay preparation and practice responses            Practice exams</p>
<p><b>MAKING ART</b>  <b>Photography</b>            A series of photos using a vanitas still life  <b>Drawing Practice</b>            Drawing from the studio shots and still life  <b>Painting practice</b>            Paintings from previous studies.</p> <p>Sculpture Practice extension</p>	<p><b>MAKING ART</b>            Development of BOW based on the figure or Portrait. Students to document and plan this work in their VAPD.  <b>Ceramics</b>            Ceramic sculpture  <b>Printmaking – lino</b>            Lino print based on the human form.  <b>Drawing practice</b>            Sketches and/or resolved drawings of the body</p>	<p><b>MAKING ART</b>            Studies on the Modernist movement in VAPD. Focus on:</p> <ul style="list-style-type: none"> <li>• Watercolour</li> <li>• Pastel drawing</li> <li>• Ink tone</li> <li>• Experimental drawing</li> <li>• Cyanotype</li> </ul>
<p><b>Assessment Task 1</b>            BOW/VAPD            30% (20% Art Making, 10% Art Criticism &amp; Art History)            Due Term 1 Week 10</p>	<p><b>Assessment Task 2</b>            BOW/VAPD            40% (30% Art Making, 10% Art Criticism &amp; Art History)            Due Term 2 Week 9</p>	<p><b>Assessment Task 3</b>            Exam            30% Art Criticism &amp; Art History            Due: Term 3 Examination Period Week9/10</p>
<p><b>OUTCOMES</b>            Making: P1 P2 P3            Critical and Historical: P7 P8 P9 P10</p>	<p><b>OUTCOMES</b>            Making: P1 P2 P3 P4 P5 P6            Critical and Historical: P7 P8 P9 P10</p>	<p><b>OUTCOMES</b>            Making: P1 P2 P3 P4 P5 P6            Critical and Historical: P7 P8 P9 P10</p>



### **What you will need for the year:**

- Visual Arts Process Diary – A3 size, or bigger.

Art equipment – most will be supplied, but you are welcome to bring in your own/anything specific you need.

- **DEDICATION AND COMMITMENT!** To get the best marks you need to go beyond classwork/class time. Remember the more effort you put in the greater the results.

### **Areas of Study:**

1. Artmaking 50%

2. Critical and Historical 50%

### **Major Work:**

1.	Artmaking	Body of work
2.	Critical and Historical	HSC Written Examination

## YEAR 12 VISUAL ARTS TIMELINE

### TERM 4: Development of the Body of Work 20%

W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
								<b>BODY OF WORK DEVELOPMENT DUE - 25%</b>	

### TERM 1: Written Task 20%

W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11
								<b>WRITTEN TASK DUE - 20%</b>		

### TERM 2: Resolving Body of Work: 30%

W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
									<b>RESOLVING BODY OF WORK DUE - 20%</b>

### TERM 3: Trial HSC 30%

W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
		<b>TRIAL HSC EXAM - 30%</b>							

## HSC VISUAL ARTS: Scope and Sequence

	Term 4				Term 1				Term 2				Term 3			
<b>Artmaking</b>	Development of BOW – 20-30 Page VAPD				Development of BOW – Begin BOW artmaking				Development of BOW – Resolving Body of Work				Body of Work Completion			
<b>Critical and Historical</b>	Case Study: Challenging Mainstream				Case Study: War and Conflict – Displacement				Case Study: Confronting Colonialism				Case Study: PoMo Fem Fest Case Study: Patricia Piccinini			
<b>Frames</b>	Subjective	Structural	Cultural	Postmodern	Subjective	Structural	Cultural	Postmodern	Subjective	Structural	Cultural	Postmodern	Subjective	Structural	Cultural	Postmodern
<b>Conceptual Framework</b>	Artist	Artwork	World	Audience	Artist	Artwork	World	Audience	Artist	Artwork	World	Audience	Artist	Artwork	World	Audience
<b>Assessments</b>	Body of Work Development – 20%				Written Task – 20%				Resolving Body of Work – 30%				Trial HSC – 30%			
	Artmaking		Critical and Historical		Artmaking		Critical and Historical		Artmaking		Critical and Historical		Artmaking		Critical and Historical	
<b>Outcomes</b>	H1, H2, H3, H4, H8, H10				H7, H8, H10				H1, H2, H4, H5, H6				H7, H8, H9			

# Visual Arts

Syllabus Components	Syllabus Weighting	Task 1:	Task 2:	Task 3:	Task 4:
		<i>Development of the Body of Work:</i> VAPD documenting initial artmaking experimentation and investigation, analysis of artmaking practice through the frames, research and comparative analysis of student practice and selected artists' practice.	<i>Written Task:</i> In class essay Past HSC Exam question.	<i>Resolving the Body of Work:</i> Submission of artworks under development, VAPD documenting experimentation, written reflections including explanation of intention and the links between material and conceptual practice.	<i>Trial HSC Examination:</i> Written response Art practice, criticism and history.
		<b>Date:</b> Term 4 Week 9	<b>Date:</b> Term 1 Week 9	<b>Date:</b> Term 2 Week 10	<b>Date:</b> Term 3 Weeks 3/4
		<b>Outcomes:</b> H1, H2, H3, H4, H8, H10	<b>Outcomes:</b> H7, H8, H10	<b>Outcomes:</b> H1, H2, H4, H5, H6	<b>Outcomes:</b> H7, H8, H9
Art Making	50%	20%		30%	
Art Criticism and Art History	50%		20%		30%
<b>Marks</b>	<b>100%</b>	<b>20%</b>	<b>20%</b>	<b>30%</b>	<b>30%</b>

## Outcomes

A student:

H1 - initiates and organizes art-making practice that is sustained, reflective and adapted to suit particular conditions

H2 - applies their understanding of the relationships among the artist, artwork, world and audience through the making of a body of work

H3 - demonstrates an understanding of the frames when working independently in the making of art

H4 - selects and develops subject matter and forms in particular ways as representations in art making

H5 - demonstrates conceptual strength in the production of a body of work that exhibits coherence and may be interpreted in a range of ways

H6 - demonstrates technical accomplishment, refinement and sensitivity appropriate to the artistic intentions within a body of work

H7 - applies their understanding of practice in art criticism and art history

H8 - applies their understanding of the relationships among the artist, artwork, world and audience

H9 - demonstrates an understanding of how the frames provide for different orientations to critical and historical investigations of art

H10 - constructs a body of significant art histories, critical narratives and other documentary accounts of representation in the visual arts

VAPD – Visual Arts Process Diary

BOW – Body of Works

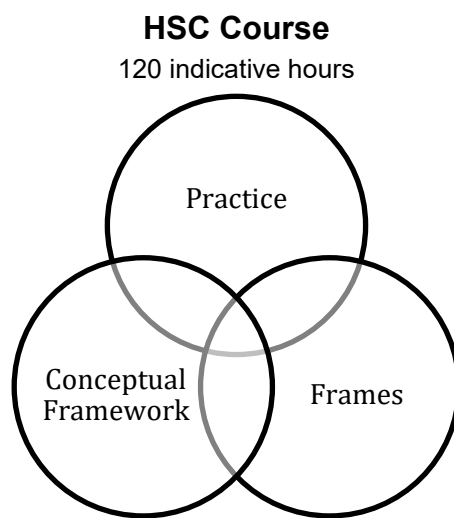
## Aim

Visual Arts at Stage 6 is designed to enable students to:

- gain increasing intellectual autonomy in their abilities to aesthetically and persuasively represent ideas in the visual arts; and
- understand and value how the field of the visual arts is subject to different interpretations.

## Objectives

Students will develop knowledge, skills and understanding of how they may represent their interpretations of the world in artmaking as an informed point of view. Students will develop knowledge, skills and understanding of how they may represent an informed point of view about the visual arts in their critical and historical accounts.



## Course Requirements

It is recommended that:

40% of time should be devoted to artmaking with consideration of the frames and conceptual framework

40% of time should be devoted to art criticism and art history with consideration of the frames and conceptual framework

the remaining 20% of time may be allocated to any aspect of content depending on the interests of teachers and students.

## Summary of HSC course requirements

A focus on more interpretive investigations and relationships through:

- the content of practice, conceptual framework, frames
- the development of a body of work
- use of a process diary
- investigation of content through at least five case studies in art criticism and art history.

# ARTMAKING

## Visual Arts Process Diary

Students are required to keep a Visual Arts Process Diary in both the Preliminary and HSC courses. The diary must differentiate work undertaken in these courses. It is expected that there should be some connection between what is in the diary and what is produced as an artwork and the body of work although it is recognised that the link should not simply be causal or determine the end result.

### **Purpose and form of the diary**

The diary should be used as a tool in teaching and learning in Visual Arts, particularly in artmaking. Students can use their diaries to formulate ideas and their intentions for what they will do in their artmaking.

The diary may indicate a student's research within the creative process. Investigations of subject matter, interests, issues, processes, expressive forms and conceptual challenges may be included. It may suggest some of the technical interests and technical risk-taking a student is involved in through artmaking. Various beliefs and interpretations that they may wish to investigate in their artmaking can be worked through in the diary. Different artmaking practices can be considered in the diary and applied by the student to their own artmaking.

The diary may enable students to compile ideas that are presented and discussed with others, including teachers and their peers. It may provide a significant link between the teacher and the student. It allows for reflection, evaluation and assessment of student achievement. Mistakes and changes can be negotiated, discussed and worked through. Alternative views and multiple ideas can be documented.

The diary should suggest and provide evidence of a student's modes of working. The diary can be conceived of as a site for the development of know-how and a student's judgement. This know-how and judgement works towards informing students' decisions and actions in the production of artworks including the body of work.

The diary may include drawings, paintings, sketches, annotated diagrams, notes and ideas, critical comment and reflections, photographs and collections of objects. It can take the form of a sketchbook, folder, container for three-dimensional works, CDROM, DVD, files on a memory stick or combination of these.

### **The diary and artmaking practice**

Teachers and students should recognise that a diary is not a necessary condition of artmaking as a practice. However, it plays a highly significant role in the art classroom as a means of developing students' understanding and judgement.

Keeping a diary should not necessarily be viewed by teachers and students as a way towards guaranteed success in the practice of artmaking. It is highly recommended that teachers do not encourage students to use their diaries as ends in themselves, nor for them to have a 'life of their own'.

The diary must not be used as a substitute for the making of a body of work.

### **The diary and school-based assessment and external examination**

The diary, as well as artworks produced, must be taken into account in a teacher's assessment of student achievement. It is recommended that teachers' comments and advice should be clearly indicated in a student's diary and the entry dated.

The school should retain the student's diary until the completion of the Visual Arts written examination. The diary must be available if required in the HSC examination and in the event of appeals, to verify and provide further evidence of a student's work.

### **Recording of technical details and copyright matters**

The diary should clearly indicate technical details used in the development of a body of work, such as processes, products, hardware and software. The diary should also indicate that copyright matters have been attended to, as appropriate, in the development of a body of work in the HSC course. This is particularly relevant to digitally produced works, film and video, interactives, and graphic design in relation to sound tracks, music, and imagery that has been appropriated or reinterpreted.

## **The development of a body of work – HSC course**

### **The body of work, the practice of artmaking and other syllabus content**

The body of work is developed during the HSC course and provides the opportunity for the full range of students electing Visual Arts to engage in artmaking as a practice. The body of work will be externally examined.

A selection of one or more works is made at the conclusion of the course and is submitted as evidence of what students know and can do in the practice of artmaking.

Through the production of an individual work or series of works during the HSC course, students can demonstrate their application of knowledge, understanding and critical judgement acquired through experience. Works produced over time provide the possibility for students to establish their intentions as artists and to develop courses of action for their own practice. Their decisions, actions and intentions are developed and realised through the development of the body of work in increasingly sophisticated ways and contribute to their understanding of the nature of practice.

The development of a work or works that may be included in the final submission should encourage students to reveal their practical and theoretical understanding of artmaking. This understanding of the concepts and practical actions required in artmaking is informed through the student's engagement with the frames, their understanding of the conceptual framework, and their interpretations of interests applied to their own investigations.

### **The body of work – selecting works for an HSC submission**

The selection of work for a body of work is made on the basis of the student's demonstration of an understanding of artmaking practice. Work is selected to represent a coherent point of view and to indicate the student's intentions as an artist. This selection should also provide evidence of the conceptual strength and meaning that exists between and within the works included in the body of work.

For example, a student might submit a body of work in the Collection of Works expressive form. The submission might comprise photography, painting and drawing. These works could be closely related and develop from one another in a sustained way in terms of their meaning and conceptual relationships. The conceptual relationships between works in the body of work could occur through the interpretation and shaping of connected ideas about subject matter. These conceptual relationships might also be evidenced through sustained and deeper investigations of the different expressive forms, materials and techniques. These investigations provide students with opportunities to make works in which a coherent point of view is represented and presented within and across the individual works within the body of work.

Other students might demonstrate their understanding in a body of work, developing their ideas around a particular interest that might be related through their interpretation and investigation of subject matter, an expressive form and/or an experimental approach to the use of materials. An individual work may be selected as a body of work on the basis that it reveals a coherent point of view, conceptual strength and meaning and a student's knowledge and understanding of practice. The work would need to provide evidence of sustained investigations with materials and ideas that, over time, have contributed to the conceptual strength and meaning of the work.

## Expressive Forms

A body of work may be produced in one of the 12 expressive forms. The following table provides advice for submissions in each of the expressive forms.

Dangerous materials must not be used. If a submission contains materials considered dangerous to health or safety it may not be unpacked, marked or returned to schools if marked corporately.

Submissions considered dangerous to health or safety may not be marked in itinerant marking.

Teachers need to ensure that artmaking practices comply with all current legislation relating to work health and safety as well as system and school requirements regarding safety.

The overall limitations of size, weight, dangerous and prohibited materials and duration as set out in Assessment and Reporting in Visual Arts Stage 6 need to be followed.

([www.boardofstudies.nsw.edu.au/syllabus\\_hsc/](http://www.boardofstudies.nsw.edu.au/syllabus_hsc/))

Expressive Form	Suggested Submission
Documented Forms	An individual work or series of works documenting time-based events, happenings, performances and site-specific installations.
Collection of Works	A collection or series of works made using different expressive forms.
Drawing	An individual work or series of works with a focus on drawing.
Painting	An individual work or series of works with a focus on painting.
Photomedia	An individual work or series of works in black and white and/or colour made using wet (darkroom) and/or digital practices.
Printmaking	An individual work or series of works with a focus on printmaking.
Textiles and Fibre	An individual work or series of works with a focus on textiles and fibre.
Graphic Design	An individual work or series of works with a focus on graphic design.
Designed Objects	An individual work or series of works with a focus on 3D object design. This expressive form includes wearables, jewellery, architectural design and product design.
Sculpture	An individual work or series of works with a focus on sculpture.
Ceramics	An individual work or series of works with a focus on ceramics.
Time-based forms	An individual work or series of works with a focus on time-based forms. This expressive form includes film and video, digital animation and/or interactives.

## Current exclusions

Works developed for assessment in any of the Board Endorsed Courses in Ceramics; Photography, Video and Digital Imaging; and Visual Design are not to be used either in full or in part for assessment in Visual Arts.

In the HSC year students who study Visual Arts may continue to study any of these courses but should note this exclusion in their making of a body of work.

Teachers should also refer to the ACE Manual for current exclusions relating to the submitted body of work and Content Endorsed Courses and/or JSSTAFE Courses. Breaches of exclusions may lead to students being penalised in marks awarded for their body of work submission.

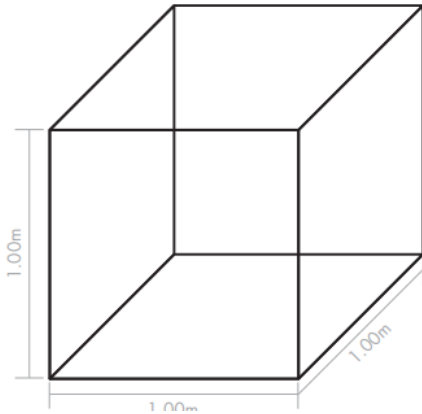
Projects and submitted works developed for assessment in one subject are not to be used either in full or in part for assessment in any other subject.



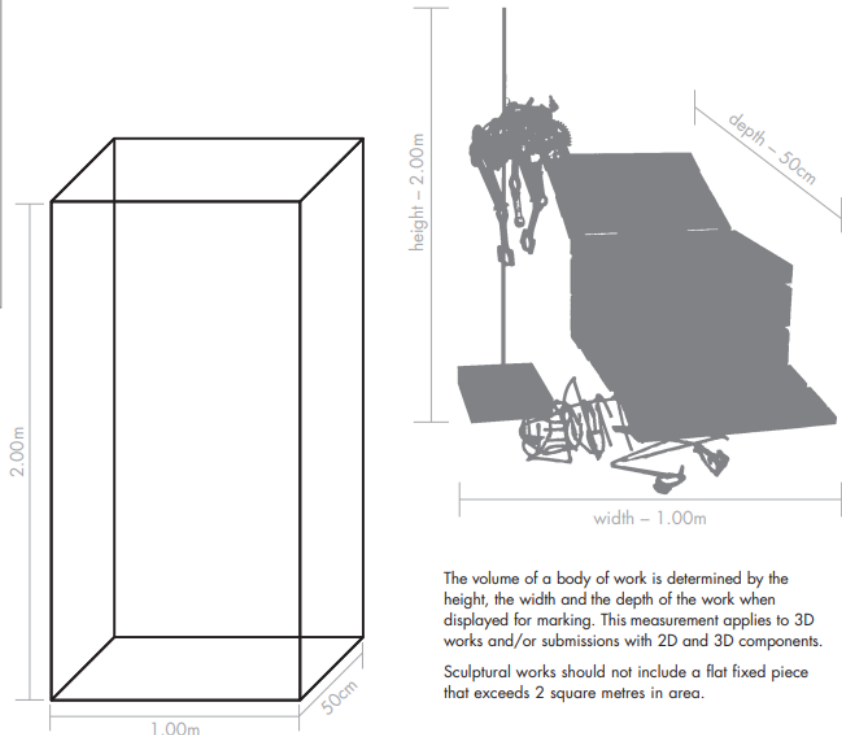
# Body of Work – Comparison of Dimensions

## A body of work can comprise one or more individual pieces

- Rules for the body of work are on pages 45 to 49 of the Visual Arts Stage 6 Syllabus on the Board of Studies website.
- These rules apply to ALL bodies of work submitted for Visual Arts, whether they are marked corporately or itinerantly.
- ALL submissions need to comply with ALL of these rules when displayed for marking, whether the body of work is 2D, 3D or 4D, or a combination of these forms.
- Teachers and students are reminded that suggested submission formats and notes about each expressive form are included in the Visual Arts Stage 6 Syllabus.

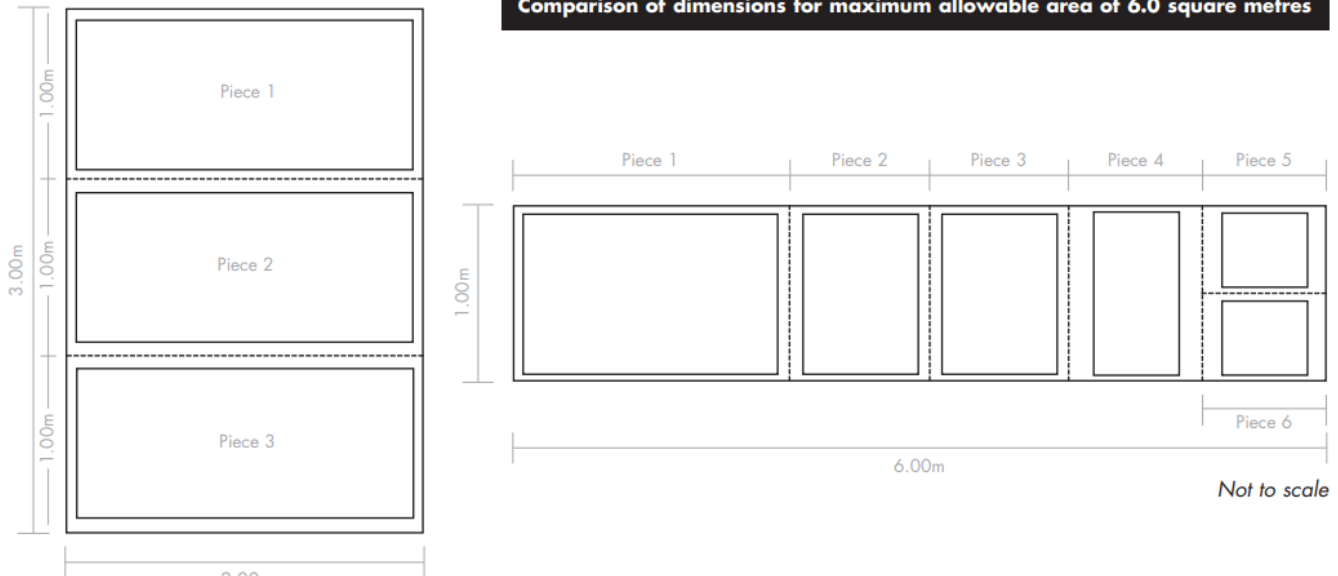


## Comparison of dimensions for maximum allowable volume of 1.0 cubic metre

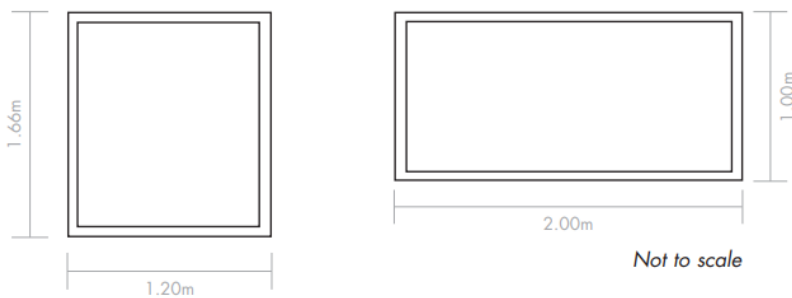


The volume of a body of work is determined by the height, the width and the depth of the work when displayed for marking. This measurement applies to 3D works and/or submissions with 2D and 3D components. Sculptural works should not include a flat fixed piece that exceeds 2 square metres in area.

## Comparison of dimensions for maximum allowable area of 6.0 square metres



## Comparison of dimensions for allowable area of 2.0 square metres



### Examples of length and breadth for allowable area of 2.0 square metres

2.20m x 0.91m	1.74m x 1.15m
2.10m x 0.95m	1.66m x 1.20m
2.00m x 1.00m	1.54m x 1.30m
1.90m x 1.05m	1.48m x 1.35m
1.82m x 1.10m	1.41m x 1.41m

## **Dangerous and prohibited materials**

Dangerous materials must not be used. If a submission contains materials considered dangerous to health or safety it may not be unpacked, marked or returned to schools if marked corporately. Submissions considered dangerous to health or safety may not be marked in itinerant marking.

### **Prohibited materials:**

- Hypodermic syringes must not be included in any submitted works. This includes new or used syringes, with or without needles.
- Bodily secretions and blood products must not be included in any submitted works.
- Food and/or perishable materials (including rice, pasta, dried beans, coffee grounds, confectionary, tobacco) and objects must not be included in any submitted works.
- Liquids in any form must not be included in any submitted works.
- Medications in any form, including tablets and capsules, must not be included in any submitted works.
- Glass in any form must not be included in any submitted works. This includes unbroken glass such as bottles, mirrors or any other form. The use of plastic LED lights is advised. Teflon coated light bulbs may only be used within a sealed light box.
- Any materials that have sharp or jagged edges (barbed wire, fish hooks, corrugated iron, broken machinery etc.) must not be included in any submitted works.
- Live, blank and dummy ammunition casings must not be used in any submitted work.
- Electrical wiring that has not been certified by an electrician must not be included in any submitted works.
- Submissions requiring a high voltage electrical current (e.g. 240 volts) must have a certificate for electrical safety attached. Any electrical wiring necessary for artworks should be undertaken by a qualified electrician. Details and records of such work should be noted in students' diaries.

## **Presentation and packaging of HSC Body of Work**

Teachers and students should ensure that the display requirements for marking the body of work are not complicated or time consuming to set up. Instructions, if submitted, should be clear and easy to follow.

Each work in a submission must be clearly labelled with the student's number, school number, title, the expressive form selected and the number of pieces.

Framing and/or mounting of artworks in a body of work is not necessary.

Works must not be framed under glass or rigid plastic as it impedes close inspection of the submission, and if broken, may cause damage to the work or to markers.

It is recommended that two-dimensional works are presented either flat, or in a folder or box. If works are mounted, simple cardboard mounts are preferred. Works in a series should be numbered to indicate the sequential order for display for marking.

Mannequins must not be included with submissions of Wearables in the Designed Objects expressive form.

Artworks must be stable in their construction to minimise any damage during handling. During marking, artworks might be handled many times.

Artworks should be well packed to minimise the possibility of damage during transport to the marking centre. Most breakages occur because of insufficient packaging or too many fragile articles being packed together.

Boxes used for packaging should be kept as light as possible and all works within the box should be rigidly packed to stop movement. Damage can also occur when paintings are packed for transportation before paint is fully dry.

To protect artworks, the following ways of packing are the most effective.

## Artmaking Outcomes

Students will develop knowledge, skills and understanding of how they may represent their interpretations of the world in artmaking as an informed point of view.

<b>Content</b>	<b>HSC Course</b>
Practice	A student: H1: initiates and organises artmaking practice that is sustained, reflective and adapted to suit particular conditions
Conceptual Framework	H2: applies their understanding of the relationships among the artist, artwork, world and audience through the making of a body of work
Frames	H3: demonstrates an understanding of the frames when working independently in the making of art
Representation	H4: selects and develops subject matter and forms in particular ways as representations in artmaking
Conceptual strength and meaning	H5: demonstrates conceptual strength in the production of a body of work that exhibits coherence and may be interpreted in a range of ways
Resolution	H6: demonstrates technical accomplishment, refinement and sensitivity appropriate to the artistic intentions within a body of work

# ART CRITICISM AND ART HISTORY

## Case studies in the HSC course

A series of case studies (a minimum of FIVE) should be undertaken with students in the HSC course. However, students may be introduced to case studies in the Preliminary course following more broadly based understanding being developed about practice, the conceptual framework and frames. Case studies should be 4–10 hours in duration in the HSC course. Other more general critical and historical learning opportunities should continue to be offered during the course.

### Case studies and syllabus content

Case studies provide a means of studying particular cases in the visual arts. Their function within the classroom is to illustrate a point or something of significance. They should be developed with consideration of the content as outlined in Section 8 of this syllabus. The selection of content for the case study should relate various aspects of critical and historical investigations, taking into account practice, the conceptual framework and the frames. Emphasis may be given to a particular aspect of content although all should remain in play.

## Art Criticism and Art History Outcomes

Students will develop knowledge, skills and understanding of how they may represent an informed point of view about the visual arts in their critical and historical accounts.

Content	HSC Course
Practice	A student: H7: applies their understanding of practice in art criticism and art history
Conceptual Framework	H8: applies their understanding of the relationships among the artist, artwork, world and audience
Frames	H9: demonstrates an understanding of how the frames provide for different orientations to critical and historical investigations of art
Representation	H10: constructs a body of significant art histories, critical narratives and other documentary accounts of representation in the visual arts

## Values and Attitudes

Students should be encouraged to:

appreciate the characteristics of practice in the visual arts in artmaking, art criticism, and art history

appreciate the role and contribution of the artist in different societies and cultures

appreciate the different meanings of artworks that are valued

appreciate the material, physical, transient or virtual qualities of expressive forms of artworks

- appreciate the different ways the world can be interpreted in the making of art and in the critical and historical interpretation of art
- value the role of an audience as a body of critical consumers and appreciate opportunities to view artworks as audience members
- value how significant interpretations and meanings in the visual arts are sustained
- appreciate the significance of expressive representation in the visual arts
- value how their intellectual autonomy is advanced through the making of art and in the critical and historical investigation of art
- appreciate how the field of the visual arts offers insights about themselves, art and the world.

## Assessment Criteria - Artmaking

- Conceptual strength and meaning
- Resolution

Outcomes assessed: H1, H2, H3, H4, H5, H6

### MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> <li>• Demonstrates an articulation of ideas and concepts that are elaborated, reiterated, subtle and sustained coherently in the form(s) of the work. Meanings make significant references and register on a number of levels</li> <li>• Displays technical sensitivity, refinement, discrimination, moderation, and is respectful of the conditions set by the selection of materials and limitations including course prescriptions</li> </ul>	<b>41-50</b>
<ul style="list-style-type: none"> <li>• Demonstrates an articulation of ideas and concepts showing some elaboration and reiteration that is more coherent and subtle in some aspects of the work than in others. Meanings and references register on a number of levels but are not as significant</li> <li>• Displays technical sensitivity and moderation, although some aspects are more refined while others are elaborated and/or overworked. Generally respectful of conditions set by the selection of materials and limitations including course prescriptions</li> </ul>	<b>31-40</b>
<ul style="list-style-type: none"> <li>• Demonstrates an articulation of idea/concept showing some connection that is more apt and coherent in some aspects of the work than in others. Meanings and references register on some levels but in limited ways</li> <li>• Displays technical proficiency yet not very sensitive or refined. Some display for display's sake, thus little moderation. Some respect for conditions set by the selection of materials and limitations including course prescriptions</li> </ul>	<b>21-30</b>
<ul style="list-style-type: none"> <li>• Demonstrates an articulation of idea/concept confined to some aspect(s) of the work. Meanings and references register in restricted and obvious ways</li> <li>• Displays little refinement or subtlety. Some repetition or inconsistent application. Little discrimination or moderation, limited respect for conditions set by the selection of materials and limitations including course prescriptions</li> </ul>	<b>11-20</b>
<ul style="list-style-type: none"> <li>• Demonstrates a simplistic, immediate articulation of idea/concept. Meanings register in banal ways. References are limited, driven by the image</li> <li>• Displays neither technical accomplishment nor moderation. Unsubtle, unrefined, incongruous, superficial. At variance with conditions set by selection of materials and limitations including course prescriptions</li> </ul>	<b>1-10</b>

# Assessment Criteria - Art Criticism and Art History

The paper will consist of two sections

## Section I (25 marks)

- There will be three short-answer questions.

## Section II (25 marks)

- There will be six extended response questions, two questions on each of practice, the conceptual framework and frames.
- Candidates will be required to answer one question.
- The expected length of response will be around eight pages of an examination writing booklet (approximately 1000 words).

Outcomes assessed: H7, H8, H9, H10

## MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> <li>• Presents a comprehensive, sophisticated and sustained discussion of content relevant to the questions</li> <li>• Explains the significance of examples/cases to strongly support analysis</li> <li>• Presents complex and logical points of view that are reveal a highly developed understanding of the visual arts</li> </ul>	<b>41-50</b>
<ul style="list-style-type: none"> <li>• Presents a through and well-reasoned discussion of content relevant to the questions</li> <li>• Explains examples/cases to support an analysis that addresses most aspects of the questions</li> <li>• Presents accomplished and logical points of view that reveal a developed understanding of visual arts</li> </ul>	<b>31-40</b>
<ul style="list-style-type: none"> <li>• Presents a general discussion of content relevant to the questions</li> <li>• Explains examples/cases to support an analysis that addresses most aspects of the questions</li> <li>• Presents accomplished and logical points of view that reveal an understanding of visual arts</li> </ul>	<b>21-30</b>
<ul style="list-style-type: none"> <li>• Presents an uneven and superficial description of content relevant to the questions</li> <li>• Describes examples/cases in obvious ways to connect with some aspects of the questions</li> <li>• Presents inconsistent points of view that reflect a foundational understanding of the visual arts</li> </ul>	<b>11-20</b>
<ul style="list-style-type: none"> <li>• Attempts to explain some aspects of the questions</li> <li>• May offer examples/cases that may not always be relevant or addressed</li> <li>• Presents unsupported points of view that reflect a limited understanding of visual arts</li> </ul>	<b>1-10</b>



# Performance Band Descriptions

## The typical performance in this band demonstrates:

### Band 6

- a highly developed understanding of practice and a sustained reflective engagement informed by a knowledge of possibilities, conventions, processes and ways to proceed both practically and conceptually
- an authoritative understanding of the artworld acknowledging the complex and subtle relations among the artist, artwork, world and audience
- a sophisticated understanding of how different interpretive frameworks can be employed to represent a point of view
- a sophisticated understanding of how ideas and interests may be represented involving a synthesis of the interpretation of content/subject matter and the form of the work
- a highly developed understanding of how meaning is sustained at a number of levels through engagement with practice, artworld agencies and interpretive frameworks
- resolution, coherence, completeness which is outstanding, innovative and cutting edge

### Band 5

- a well developed understanding of practice and a sustained engagement involving a knowledge of possibilities, conventions, processes and ways to proceed both practically and conceptually
- an accomplished understanding of the artworld involving relations among the artist, artwork, world, and audience
- an accomplished understanding of how different interpretive frameworks can be employed to represent a point of view
- a well developed understanding of how ideas and interests may be represented involving a synthesis of the interpretation of content/subject matter and the form of work
- an accomplished understanding of how meaning is sustained at a number of levels that involve practice, artwork agencies and interpretive frameworks
- resolution, coherence, completeness which is accomplished

### Band 4

- a sound understanding of conventions, processes and possibilities of practice
- a sound understanding of the artworld and relations among the artist, artwork, world and audience
- a good understanding that interpretive frameworks inform a point of view
- a sound understanding of representation by attempting some synthesis and interpretation of the content/subject matter and the form of the work
- a good understanding that meaning can be sustained at a number of levels by makers, audiences and artworks
- consideration of the need to adapt, refine and select ideas and approaches employed to achieve resolution
- resolution, cohesion, completeness which is sound

### **Band 3**

- some understanding of conventions, processes and possibilities available to them yet demonstrates a limited engagement
- a basic knowledge of the artworld understood and described as artist, artwork, world and audience
- a foundational understanding of how different points of view may be possible but has difficulty presenting their own point of view
- a basic understanding of representational issues by attempting to select and organise the subject matter/content and form of the work
- some basic awareness that different meanings are possible in the visual arts
- a foundational understanding of ideas and approaches to achieve resolution

### **Band 2**

- some understanding of conventions, processes and possibilities of practice
- a simple understanding of the artworld involving some knowledge of a few artists and artworks
- some understanding that points of view are possible and may differ from their own
- a limited understanding of how ideas and subject matter and materials can be represented
- a belief that meaning is self-evident or apparent in their own and others' work
- a limited selection of ideas and approaches to achieve resolution

### **Band 1**

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
Practice in Artmaking, Art Criticism and Art History	Learn About	<p><b>Students learn about the importance of practice in the visual arts in artmaking, art criticism and art history. They learn that practice refers to the:</b></p>					
		<ul style="list-style-type: none"> <li>agency of artists, art critics and art historians and the work they produce</li> </ul>					
		<ul style="list-style-type: none"> <li>social structures, positions, actions and sequences that affect choices</li> </ul>					
		<ul style="list-style-type: none"> <li>procedures and judgements</li> </ul>					
		<ul style="list-style-type: none"> <li>perceptions, directions, ways of working and views of those involved in the visual arts</li> </ul>					
		<p><b>Students learn that the nature of practice involves:</b></p>					
		<ul style="list-style-type: none"> <li>intentional, informed human activity</li> </ul>					
		<ul style="list-style-type: none"> <li>the inculcation of beliefs, actions, motives and ideas over time</li> </ul>					
		<ul style="list-style-type: none"> <li>recognition that the field of visual arts and design has a history and is continuously transformed by innovations and new knowledge, technologies and agents</li> </ul>					
		<ul style="list-style-type: none"> <li>recognition that conceptions of practice are fluid and transform with changes in the field of visual arts and design. Notions of practice are not only informed by the new and the emergent but also by the re-emergence of existing or traditional conventions of practice.</li> </ul>					
		<p><i>Students also learn about:</i></p> <ul style="list-style-type: none"> <li>how artists, art critics and art historians contribute to the field of the visual arts</li> </ul>					

**Information:** I have heard of this.  
**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.  
**Wisdom:** I can apply this to other situations and teach others

Learners Name: -----

Date Updated: -----

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
Practice in Artmaking, Art Criticism and Art History	Learn About and Learn How	<b>1. Artmaking</b>					
		• practice in artmaking					
		• how to make art in its various forms					
		• artmaking requires an understanding of how a network of procedures can be used to make art					
		• critical judgement					
		• making informed decisions and developing autonomous knowledge in responding to the world, making artworks and communicating with audiences					
		• practising of skills to develop mastery of technique					
		• experimentation and research					
		• the importance of representation					
		• the nature of representations as complex responses to the world through subject matter and form					
		• mental representations of ideas can be adapted and developed to take on particular qualities in visual and aesthetic form					
		• conceptual strength, meaning and resolution within an artwork, or body of work, are concerned with representing artistic intentions and holding an interpretive position					
		• audiences interact with and respond to the strength of concepts and layers of meaning of their works					
		• interpretations of the meaning of their artworks can be different from their own intentions as artists					
		• the resolution of material, physical and virtual properties of the expressive forms					
		• how to work in a range of forms					
		• how particular procedures are utilised in the forms.					
• the potential of materials, processes, techniques, styles and qualities.							

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
Practice in Artmaking, Art Criticism and Art History	Learn About and How to	<b>2. Practice in Artmaking: relationship to other areas of content</b>					
		<ul style="list-style-type: none"> <li>the characteristics of practice are informed by and situated in the network of functional and intentional relationships between agencies in the conceptual framework.</li> </ul>					
		<ul style="list-style-type: none"> <li>the different relationships between these agencies that are shaped and generated by the frames will create different accounts of practice.</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate the different values that the frames bring to understanding and evaluating artworks and how this can inform their own practice.</li> </ul>					
		<ul style="list-style-type: none"> <li>how the frames provide alternative ways to build and shape their investigations of concepts and meanings</li> </ul>					
		<ul style="list-style-type: none"> <li>knowledge of relationships between agencies in the conceptual framework generated by the frames can inform their own intentions</li> </ul>					
		<ul style="list-style-type: none"> <li>how meaning can be given to the representation of intense experience, cultural issues, signs and symbols and to those representations that challenge power relations in art.</li> </ul>					
		<b>Art Criticism and Art History</b>					
		<ul style="list-style-type: none"> <li>practice in art criticism and art history</li> </ul>					
		<ul style="list-style-type: none"> <li>how to evaluate and explain the significance of particular artists, artworks, audience responses and representations of the world in these studies.</li> </ul>					
		<ul style="list-style-type: none"> <li>practice requires an understanding of how networks of procedures can be used to speculate about the meanings of artworks, and locate them in critical narratives and significant histories.</li> </ul>					
		<ul style="list-style-type: none"> <li>An understanding of the forms, strategies, characteristics and values of art critical and art historical practices</li> </ul>					
		<ul style="list-style-type: none"> <li>artworks and significant ideas in the visual arts</li> </ul>					

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
Practice in Artmaking, Art Criticism and Art History	Learn About and How to	<ul style="list-style-type: none"> <li>take into account art critical and art historical views about artistic practice and artists.</li> </ul>					
		<ul style="list-style-type: none"> <li>Artworks studied will include art, craft, and design as                             <ul style="list-style-type: none"> <li>two- and three-dimensional works (including architecture)</li> <li>four-dimensional and time-based works</li> <li>multimodal and interactive media,</li> <li>temporal, ephemeral and relational forms,</li> <li>synthetic realities</li> <li>new and emergent technologies and forms.</li> </ul> </li> </ul>					
		<ul style="list-style-type: none"> <li>investigate points of view made in critical and historical writing</li> </ul>					
		<ul style="list-style-type: none"> <li>consider how well-reasoned accounts are developed.</li> </ul>					
		<ul style="list-style-type: none"> <li>how judgement contributes to the development of well-reasoned accounts</li> </ul>					
		<ul style="list-style-type: none"> <li>how to select relevant instances of artists, their artworks, interpretations of the world, audience responses and selected value systems in assembling their accounts.</li> </ul>					
		<ul style="list-style-type: none"> <li>how to support their evaluation of, or speculation about, instances through reference to significant art critics and historians.</li> </ul>					
		<ul style="list-style-type: none"> <li>the importance of representation in the artworks they investigate at a certain time, over time and in different places.</li> </ul>					
		<ul style="list-style-type: none"> <li>art criticism and art history provide for the exchange of opinions and viewpoints.</li> </ul>					
		<ul style="list-style-type: none"> <li>reading and reviewing critical and historical interpretations</li> </ul>					
		<ul style="list-style-type: none"> <li>visiting and evaluating exhibitions and relevant internet sites</li> </ul>					
		<ul style="list-style-type: none"> <li>following debates about relevant issues in contemporary and emergent forms of communication technologies.</li> </ul>					

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
Practice in Artmaking, Art Criticism and Art History	Learn About and How to	<b>Practice in Art Criticism and Art History: relationship to other areas of content</b>					
		<ul style="list-style-type: none"> <li>the frames provide alternative ways to generate and shape their critical and historical investigations of concepts and meanings in the visual arts.</li> </ul>					
		<ul style="list-style-type: none"> <li>how the frames provide alternative ways to build and shape their investigations of concepts and meanings in art criticism and art history.</li> </ul>					

**Information:** I have heard of this.  
**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.  
**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
The Conceptual Framework	Learn About	<b>Artist</b>					
		<ul style="list-style-type: none"> <li>can be understood as roles that are assigned or assumed within the field</li> </ul>					
		<ul style="list-style-type: none"> <li>The intentions and characteristics artists develop within these complex networks of relationships contribute to practice</li> </ul>					
		<ul style="list-style-type: none"> <li>The intentions and characteristics artists develop within these complex networks of relationships contribute to practice.</li> </ul>					
		<ul style="list-style-type: none"> <li>The agency of the artist includes:                             <ul style="list-style-type: none"> <li>a person making artworks individually, collaboratively as a group, school, movement or enlisting others to produce their work.</li> <li>practitioners such as artists, craftspeople, designers, architects, filmmakers, performance artists, digital and multimodal practitioners</li> </ul> </li> </ul>					
		<b>Audience</b>					
		<ul style="list-style-type: none"> <li>function is ongoing and changeable, intrinsic to the resolution of meaning and the different interpretations of artworks as they occur in and inhabit different contexts, times and places</li> </ul>					
		<ul style="list-style-type: none"> <li>includes art critics and art historians, teachers, students, entrepreneurs, patrons, curators, dealers, members of the public, auction houses, writers and theorists</li> </ul>					
		<ul style="list-style-type: none"> <li>are produced through the display of, and interaction with, artworks.</li> </ul>					
		<ul style="list-style-type: none"> <li>change over time and bring different intentions, beliefs and values to artworks, artists and interpretations of the world</li> </ul>					
<ul style="list-style-type: none"> <li>inhabit different histories, worlds, identities and beliefs</li> </ul>							

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others



Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
The Conceptual Framework	Learn About	<b>Artwork</b>					
		<ul style="list-style-type: none"> <li>intentionally conceived and made by artists working individually or collaboratively</li> </ul>					
		<ul style="list-style-type: none"> <li>have properties and forms that are material, virtual, physical and symbolic that exists in combinations of materials, technical skills, concepts and subjects</li> </ul>					
		<ul style="list-style-type: none"> <li>exist as a representation of ideas that reflect such things as personal responses, cultural views, symbolic interpretations and critical reinterpretations of other ideas</li> </ul>					
		<ul style="list-style-type: none"> <li>are representations of meanings when viewed interpretively by audiences</li> </ul>					
		<ul style="list-style-type: none"> <li>The form of production or reproduction affects how audiences view and infer meaning about the work</li> </ul>					
		<ul style="list-style-type: none"> <li>Artworks can be considered:                             <ul style="list-style-type: none"> <li>in physical, material, virtual and ephemeral forms</li> <li>as 2D, 3D, 4D and time-based works</li> <li>as art, craft, and design as two- and three-dimensional works (including architecture), four-dimensional and time-based works, as well as multimodal and interactive media, temporal, ephemeral and relational forms, synthetic realities and other new and emergent technologies and forms.</li> </ul> </li> </ul>					
		<b>World</b>					
		<ul style="list-style-type: none"> <li>functions as a source of interests, ideas, conditions and events represented by artists in artworks</li> </ul>					
		<ul style="list-style-type: none"> <li>designates the systematic ideas of the time, existing theoretical commitments and what is considered plausible and credible in the field of visual arts</li> </ul>					
<ul style="list-style-type: none"> <li>informs the significance of artistic choice and action as well as audience inference of meaning</li> </ul>							

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
The Conceptual Framework	Learn About	<ul style="list-style-type: none"> <li>Artists' responses to the world may shape the dynamics of practice as a vigorous and changing entity</li> </ul>					
		<ul style="list-style-type: none"> <li>Artists can also investigate, interpret and represent the world as a material, conceptual and social experience as well as a place of imaginings, intuition and the personal as ideas for representation</li> </ul>					
		<ul style="list-style-type: none"> <li>Audiences infer meanings through their interactions with artworks in relation to their thoughts, beliefs and understanding of the world and of art</li> </ul>					
		<ul style="list-style-type: none"> <li>Art criticism and art history provide further insights and elaborations of the world</li> </ul>					
		<b>The Conceptual Framework: relationship to other areas of content</b>					
		<ul style="list-style-type: none"> <li>relationships between the four agencies are shaped and generated by the frames</li> </ul>					
		<ul style="list-style-type: none"> <li>Interpretations using the subjective frame view relationships between artists, artworks, audiences and the world through felt, sensory, emotional and psychological states</li> </ul>					
		<ul style="list-style-type: none"> <li>Interpretations using the cultural frame view particular social, economic and political conditions in the world as explanatory contexts for understanding art</li> </ul>					
		<ul style="list-style-type: none"> <li>Interpretations using the structural frame view artists as producing artworks that represent the world using systems of signs and symbols that share a visual language read by artists and audiences for meaning</li> </ul>					
		<ul style="list-style-type: none"> <li>Interpretations using the postmodern frame view artworld relationships as complex reconfigurations, replications, contradictions and challenges to historical and current narratives of art and representations of the world</li> </ul>					

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
The Frames	Students Can:	Students learn to adopt points of view through using the frames when approaching their own practice in artmaking, art criticism and art history					
		Students learn how each frame sets up different intentional and functional relations between artists, artworks, the world and the audience					
		Students learn that the frames provide alternative ways for interpreting and explaining meanings and why artists and audiences take on different points of view of what is of value.					
		<b>Subjective Frame</b>					
		In Artmaking:					
		<ul style="list-style-type: none"> <li>explore their own deeply felt experiences and perceptions of the world</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate their own and others' feelings and responses to the world around them. This may influence their selection and imaginative investigation of subject matter</li> </ul>					
		<ul style="list-style-type: none"> <li>explore autobiographical and personal concerns and/or experiences of significance from their own environment. This can include world events that have an impact on an intimate level</li> </ul>					
		<ul style="list-style-type: none"> <li>explore the role of intuition, spontaneity or chance in artmaking practice.</li> </ul>					
		In art criticism and art history:					
		<ul style="list-style-type: none"> <li>explore artworks as expressive and unique objects</li> </ul>					
		<ul style="list-style-type: none"> <li>explore explanations of artworks or practices which are based on the personal psychology of the artist</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate how other critics and historians represent personal, emotive accounts of art practices</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate themes of human emotion and psychology in artworks</li> </ul>					
		<ul style="list-style-type: none"> <li>develop personal interpretive responses to artists and artworks that are significant to themselves.</li> </ul>					

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
<b>The Frames</b>	<b>Students Can:</b>	<b>Structural Frame</b>					
		In Artmaking:					
		<ul style="list-style-type: none"> <li>explore the communicative value of their work through the use of conventions and in the selection of codes and symbols</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate signs, codes and symbols as a system of visual language including the way meaning is embedded in the material and conceptual organisation of the work</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate how this may affect their adoption of certain conventions and lead them to consider how codes and symbols are read by themselves and audiences and how particular expressive forms convey certain meanings.</li> </ul>					
		In art criticism and art history:					
		<ul style="list-style-type: none"> <li>consider how artworks can be read and their meaning understood in terms of how specific symbols refer to the world within conventions of representation</li> </ul>					
		<ul style="list-style-type: none"> <li>study how visual information is organised and transmitted in artworks within individual artistic practice, within a particular art form as well as within genres or traditions of subject matter</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate art critical and art historical practices which categorise, value and explain artworks through their formal language</li> </ul>					
<ul style="list-style-type: none"> <li>study how the formal and organisational relationships in a work may mean certain things and how the visual arts can operate as visual language at a certain time and over time.</li> </ul>							

**Information:** I have heard of this.  
**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.  
**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	Wisdom	Notes
The Frames	Students Can:	<b>Cultural Frame</b>					
		In Artmaking:					
		<ul style="list-style-type: none"> <li>explore cultural values and social meanings</li> </ul>					
		<ul style="list-style-type: none"> <li>choose to explore ideas and interests of significance to their society or of particular cultural groups. This may influence how they represent subject matter of a broad social significance</li> </ul>					
		<ul style="list-style-type: none"> <li>explore the cultural meanings of the expressive forms they work in.</li> </ul>					
		In art criticism and art history:					
		<ul style="list-style-type: none"> <li>consider how notions of cultural identity can inform artistic practice and the production of artworks</li> </ul>					
		<ul style="list-style-type: none"> <li>study differing cultural attitudes towards the visual arts and the effects of scientific and technological innovation, politics and economics</li> </ul>					
		<ul style="list-style-type: none"> <li>study concepts of social and cultural identity (eg gender, Indigenous, regional, national, modern, contemporary, globalised) on artistic practices in particular places at a certain time and over time</li> </ul>					
		<ul style="list-style-type: none"> <li>explore the reconstruction of meaning of an artwork in and for the society in which it was produced or they may explore the reception, uses and meanings of artworks at certain times or over time</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate how art historians have constructed social histories of art</li> </ul>					
		<ul style="list-style-type: none"> <li>investigate how art critical practice might be considered as a socially significant contribution to the artworld</li> </ul>					
		<ul style="list-style-type: none"> <li>apply their understanding of significant narratives on the social history of art to their understanding of artworks.</li> </ul>					

**Information:** I have heard of this.  
**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.  
**Wisdom:** I can apply this to other situations and teach others

Learners Name: \_\_\_\_\_

Date Updated: \_\_\_\_\_

						Notes
Topic	Capacity	Capacity Breakdown	Information	Knowledge	Know-how	
<b>The Frames</b>	<b>Students Can:</b>	<b>Postmodern Frame</b>				
		In Artmaking:				
		<ul style="list-style-type: none"> <li>adopt positions related to their understanding of contemporary artistic practice and theories</li> </ul>				
		<ul style="list-style-type: none"> <li>recontextualise artworks and critique definitions of what art is through exploration of both art forms and imagery</li> </ul>				
		<ul style="list-style-type: none"> <li>modify, reinterpret or appropriate images from a variety of sources, including popular culture and forms of communication in the artworks they make</li> </ul>				
		<ul style="list-style-type: none"> <li>investigate the potential of newer technologies where challenges are made to the unique, singular, precious object as art.</li> </ul>				
		In art criticism and art history:				
		<ul style="list-style-type: none"> <li>question practice in art, assumptions about what art is and the generally accepted classifications of artists, artworks, movements and styles</li> </ul>				
		<ul style="list-style-type: none"> <li>investigate contemporary critical theory and particular theorists</li> </ul>				
		<ul style="list-style-type: none"> <li>view revisionist histories and critique traditional explanations of meaning in art to identify inconsistencies, contradictions and hidden assumptions in what is written</li> </ul>				
		<ul style="list-style-type: none"> <li>re-evaluate notions of artistic genius and the masterpiece, and study influences, canons and chronologies to reveal power relations, disjunctions and hidden assumptions</li> </ul>				
		<ul style="list-style-type: none"> <li>re-examine artistic practices which have been marginalised by conventional narratives of value in art.</li> </ul>				

**Information:** I have heard of this.

**Know-How:** I can do this on my own

**Knowledge:** I understand and can explain this.

**Wisdom:** I can apply this to other situations and teach others



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Year 11 Visual Arts
<b>Teacher:</b>	Mr Moore
<b>Assessment Task Number:</b>	Task 1
<b>Assessment Task Name:</b>	Topic 1 – Developing Practice: Vanitas
<b>Date Issued:</b>	Term 1 Week 3
<b>Date and Time Due:</b>	Term 1 Week 10
<b>Weighting:</b>	30% (20% Artmaking + 10% Critical and Historical)
<b>Time Allocated:</b>	Class time will be allocated, each lesson, up until the due date for students to receive feedback and to work on their assessment task.
<b>Presentation and Submission Guidelines:</b>	Submit VAPD and practical work to class teacher in class, written task to be submitted in class in hard copy on due date.
<b>Marking Process:</b>	Marked by classroom teacher, written feedback.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	explores the conventions of practice in artmaking
P2	explores the roles and relationships between the concepts of artist, artwork, world and audience
P3	identifies the frames as the basis of understanding expressive representation through the making of art
P4	investigates subject matter and forms as representations in artmaking
P8	explores the roles and relationships between concepts of artist, artwork, world and audience through critical and historical investigations of art

### Task Description:

You are to submit the following:

#### *Artmaking*

**1. Vanitas studio photograph**

**2. Minimum of two Vanitas still life drawings in your VAPD, utilising different drawing mediums**

**3. Vanitas painting**

*This practical will constitute 20% of your marks.*

#### *Critical & Historical*

**4. Written Task**

- Research the artwork *For the Love of God* by Damien Hirst.

- Use the Conceptual Framework (artist, artwork, world and audience) to write a 1-page response (500 words) to the question '**How has Damien Hirst expressed the ideas of Vanitas in his artwork?**'

*Your written task will constitute 10% of your marks.*

### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_

### Success Criteria:

A student can:

- Demonstrates the ability to develop and refine a range of related artworks.
- Construct a response to a studied artwork, describing the artwork, its themes and the relationships between artist, artwork, world and audience.



<b>Marking Guidelines: ARTMAKING</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Student demonstrates an articulation of ideas and concepts that are elaborated, reiterated, subtle and sustained coherently.</li> <li>• Displays technical sensitivity, refinement, discrimination and moderation.</li> </ul>	<p>A</p> <p>17 - 20</p>
<ul style="list-style-type: none"> <li>• Student demonstrates an articulation of ideas and concepts showing some elaboration and reiteration that is more coherent and subtler in some aspects than in others.</li> <li>• Displays technical sensitivity and moderation, although some aspects are more refined.</li> </ul>	<p>B</p> <p>13 - 16</p>
<ul style="list-style-type: none"> <li>• Student demonstrates an articulation of idea/concept showing some connection that is more apparent and coherent in some aspects than in others.</li> <li>• Displays technical proficiency yet not very sensitive or refined.</li> </ul>	<p>C</p> <p>9 - 12</p>
<ul style="list-style-type: none"> <li>• Student demonstrates an articulation of idea/concept confined to some aspect(s).</li> <li>• Displays little refinement or subtlety. Some repetition or inconsistent application.</li> </ul>	<p>D</p> <p>5 - 8</p>
<ul style="list-style-type: none"> <li>• Student demonstrates a simplistic, immediate articulation of idea/concept.</li> <li>• Displays neither technical accomplishment nor moderation. Unsubtle, unrefined, incongruous, superficial.</li> </ul>	<p>E</p> <p>1 - 4</p>
<ul style="list-style-type: none"> <li>• Student fails to submit task, plagiarism or non-serious attempt.</li> </ul>	<p>N</p>

<b>Marking Guidelines: CRITICAL AND HISTORICAL</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• The student has indicated a highly developed understanding of how the agencies of the art world are related in their investigation.</li> </ul>	<p>A</p> <p>9 - 10</p>
<ul style="list-style-type: none"> <li>• The student has indicated a good understanding of how the agencies of the art world are related in their investigation.</li> </ul>	<p>B</p> <p>7 - 8</p>
<ul style="list-style-type: none"> <li>• The student has indicated an understanding of how the agencies of the art world are related in their investigation.</li> </ul>	<p>C</p> <p>5 - 6</p>
<ul style="list-style-type: none"> <li>• The student has indicated a basic understanding of how the agencies of the art world are somewhat related in their investigation.</li> </ul>	<p>D</p> <p>3 - 4</p>
<ul style="list-style-type: none"> <li>• The student has indicated a limited understanding of how the agencies of the artworld are related in their investigation.</li> </ul>	<p>E</p> <p>1 - 2</p>
<ul style="list-style-type: none"> <li>• Student fails to submit task, plagiarism or non-serious attempt.</li> </ul>	<p>N</p>



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Prelim Visual Arts
<b>Teacher:</b>	Mr Moore
<b>Assessment Task Number:</b>	Task 2
<b>Assessment Task Name:</b>	Topic 1 - Exploring Representation: The Body
<b>Date Issued:</b>	Term 5 Week 3
<b>Date and Time Due:</b>	Term 2 Week 9
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Weeks 1 – 10 Term 1 2024 Class time will be allocated, each lesson, up until the due date for students to receive feedback and to work on their assessment task.
<b>Presentation and Submission Guidelines:</b>	Submit your VAPD and all artworks relating to the topic of 'The Body' studied in Term 2.
<b>Marking Process:</b>	The task will be marked by the classroom teacher, with possible consultation with other Visual Art teacher(s), in accordance with the performance band descriptors. Students will receive written and verbal feedback.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P1	– Explores the conventions of practice in art making – Explores the roles and relationships between the concepts of artist, artwork, world, and audience. – Identifies the frames as the basis of understanding expressive representation through the making of art. – Explores ways in which significant art histories, cultural narratives and other documentary accounts of the visual arts can be constructed
P2	
P3	
P10	
<b>Participant Declaration:</b>	
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment. <i>Participants Signature:</i> _____	

**Task Description:**

You are to **submit your VAPD and all artworks relating to the topic of 'The Body'** studied in Term 2

Submit the following:

- A ceramic sculpture based on The Body
- 5 Drawings from 'The Body Booklet' (skeleton, whole body, head, hands, perspective/foreshortening, portrait)
- Your Visual Arts Process Diary (VAPD)

*Your practical will constitute 30% of your marks. Your VAPD will constitute 10% of your marks.*

**Success Criteria:**

A student can:

- Demonstrate the ability to create and refine a range of related artworks.
- Create and refine a ceramic sculpture, applying the correct technical skills.
- Reflect on and analyse their artmaking in their VAPD.

<b>Marking Guidelines:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Outstanding – The student demonstrates extensive knowledge of content and understanding of course concepts, and applies highly developed skills and processes in a wide variety of contexts. In addition, the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.</li> </ul>	A
<ul style="list-style-type: none"> <li>• High – The student demonstrates thorough knowledge of content and understanding of course concepts, and applies well-developed skills and processes in a variety of contexts. In addition, the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.</li> </ul>	B
<ul style="list-style-type: none"> <li>• Sound – The student demonstrates sound knowledge of content and understanding of course concepts, and applies skills and processes in a range of familiar contexts. In addition, the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.</li> </ul>	C
<ul style="list-style-type: none"> <li>• Basic – The student demonstrates a basic knowledge of content and understanding of course concepts, and applies skills and processes in some familiar contexts. In addition, the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.</li> </ul>	D
<ul style="list-style-type: none"> <li>• Limited – The student demonstrates an elementary knowledge of content and understanding of course concepts, and applies some skills and processes with guidance. In addition, the student demonstrates elementary skills in recounting information and communicating ideas.</li> </ul>	E
<ul style="list-style-type: none"> <li>• Student fails to submit assignment/plagiarism</li> </ul>	N



Hunter River High School  
**ASSESSMENT TASK NOTIFICATION**

<b>Student Name:</b>	
<b>Subject/Course:</b>	Prelim Visual Arts
<b>Teacher:</b>	Mr Moore
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Preliminary Examination
<b>Date Issued:</b>	Week 1, Term 3 2025
<b>Date and Time Due:</b>	Prelim Exam Period, Term 3, Weeks 9 and 10
<b>Weighting:</b>	30% (Critical and Historical)
<b>Time Allocated:</b>	Class time will be allocated leading up to the assessment date for examination preparation and revision. This will consist of approximately half of all class time.
<b>Presentation and Submission Guidelines:</b>	Examination will be completed during the allocated examination period.
<b>Marking Process:</b>	Collegially marked by the classroom teacher Ms Bull and Mr Moore according to the marking criteria provided.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
P7	<i>explores the conventions of practice in art criticism and art history</i>
P8	<i>applies their understanding of the relationships among the artist, artwork, world and audience</i>
P9	<i>identifies the frames as the basis of exploring different orientations to critical and historical investigations of art</i>
P10	<i>explores ways in which significant art histories, critical narratives and other documentary accounts of the visual arts can be constructed</i>

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.  <i>Participants Signature:</i> _____

## Task Description:

### **Written Paper – Art Criticism and Art History (50 marks)**

Time allowed: 1 hour and 30 minutes plus 5 minutes reading time.

The paper will consist of 2 sections of equal value.

#### **Section I (25 marks)**

- There will be 3 short-answer questions.
- Questions may consist of parts.
- One question/part will be worth from 10 to 15 marks.
- Colour plates and citations are provided.
- All reference material should be used to inform responses to each question, including images, citations, and the rubric for each question.
- The mark value and time allocation per question on the examination paper may vary from year to year.

#### **Section II (25 marks)**

- Students will be required to answer ONE question.
- There will be 6 extended response questions, 2 questions on each of practice, the conceptual framework, and frames.
- No images or citations are provided.
- Candidates are to demonstrate a breadth and depth of knowledge developed from investigation of Case Studies.
- While demonstrating knowledge and understanding of the 3 areas of content (practice, the conceptual framework, and frames) candidates focus on the dominant area of content relevant to the question selected.
- The expected length of response will be around 8 pages of an examination writing booklet (approximately 1000 words).

**Success Criteria:**

The examination measures student achievement in a range of syllabus outcomes.

***Students should:***

- read the question carefully to ensure that they do not miss important components of the question
- have a clear understanding of key words in the question and recognise the intent of the question and its requirements
- engage with any stimulus material provided and refer to it in the response
- develop a plan for an extended response to assist with the logical sequencing of information
- use relevant concepts and terms, where appropriate, to support their response
- develop a cohesive and sustained argument in response to the question, reflecting extensive knowledge of artists, artworks, critics and historians' views and the syllabus
- present a logical and cohesive response that addresses the question
- integrate diverse examples across time and place to demonstrate depth and breadth of understanding
- review their response to ensure that it addresses the question requirements.

***The external examination and its marking relate to the syllabus by:***

- providing clear links to syllabus outcomes
- enabling students to demonstrate the levels of achievement outlined in the performance band descriptions
- applying marking guidelines based on criteria that relate to the quality of the response
- aligning performance in the examination each year to the standards established for the course.

<b>Marking Guidelines:</b>	<b>Marks</b>
<p><i>Outstanding</i></p> <ul style="list-style-type: none"> <li>- Presents a comprehensive, sophisticated, and sustained discussion of content relevant to the questions</li> <li>- Explains the significance of examples/cases to strongly support analysis</li> <li>- Presents complex and logical points of view that are reveal a highly developed understanding of the visual arts</li> </ul>	A
<p><i>High</i></p> <ul style="list-style-type: none"> <li>- Presents a through and well-reasoned discussion of content relevant to the questions</li> <li>- Explains examples/cases to support an analysis that addresses most aspects of the questions</li> <li>- Presents accomplished and logical points of view that reveal a developed understanding of visual arts</li> </ul>	B
<p><i>Sound</i></p> <ul style="list-style-type: none"> <li>- Presents a general discussion of content relevant to the questions</li> <li>- Explains examples/cases to support an analysis that addresses most aspects of the questions</li> <li>- Presents accomplished and logical points of view that reveal an understanding of visual arts</li> </ul>	C
<p><i>Basic</i></p> <ul style="list-style-type: none"> <li>- Presents an uneven and superficial description of content relevant to the questions</li> <li>- Describes examples/cases in obvious ways to connect with some aspects of the questions</li> <li>- Presents inconsistent points of view that reflect a foundational understanding of the visual arts</li> </ul>	D
<p><i>Limited</i></p> <ul style="list-style-type: none"> <li>- Attempts to explain some aspects of the questions</li> <li>- May offer examples/cases that may not always be relevant or addressed</li> <li>- Presents unsupported points of view that reflect a limited understanding of visual arts</li> </ul>	E
- Student fails to submit task/plagiarism	N

<b>Feedback:</b>	
<b>Medals</b>	<b>Missions</b>



# Visual Design



# Visual Design

Syllabus Outcomes ↓	Syllabus Component Weight ↓	<u>Task 1:</u>	<u>Task 2:</u>	<u>Task 3:</u>
		PD1: Product Design Visual Design Project 1 + Visual Design Diary	GD2: Illustration and Cartooning Visual Design Project 2 + Visual Design Diary	IED1: Structures and Environments Visual Design Project 3 + Visual Design Diary
		<u>Date:</u> Term 1 Week 9	<u>Date:</u> Term 2 Week 8	<u>Date:</u> Term 3 Week 7
		<u>Outcomes:</u> DM 1, 2, 4 CH 1	<u>Outcomes:</u> DM 1, 2, 3, 4, 5, 6 CH 1, 2, 3	<u>Outcomes:</u> DM 1, 2, 3, 4, 5, 6 CH 1, 2, 3, 4
<b>TASK WEIGHTINGS</b>				
Making	70%	20%	25%	25%
Critical and Historical	30%	10%	10%	10%
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>35%</b>	<b>35%</b>

## Outcomes

### **A student:**

- DM1 generates a characteristic style that is increasingly self-reflective in their design practice
- DM 2 explores concepts of artist/designer, kinds of designed works, interpretations of the world and audience/consumer response in their making of designed works
- DM3 investigates different points of view in the making of designed works
- DM4 generates images and ideas as representations/simulations
- DM5 develops different techniques suited to artistic and design intentions in the making of a range of works
- DM6 takes into account issues of Work Health and Safety in the making of a range of works
- 
- CH1 generates in their critical and historical practice ways to interpret and explain design
- CH2 investigates the roles and relationships among the concepts of artist/designer, work, world and audience/consumer in critical and historical investigations
- CH3 distinguishes between different points of view, using the frames in their critical and historical investigations
- CH4 explores ways in which histories, narratives and other accounts can be built to explain practices and interests in the fields of design

## Year 11 Visual Design Scope & Sequence 2025

Term 1	Week 1-10, Term 1 (35 Hours)			
<p><b>PD1: Packaging</b> <i>Time Capsules</i></p> <p><b>Case Study Artists/Designers:</b> Andy Warhol</p>	<p>This module provides students with opportunities to design and make packaging for specific purposes, informed by the critical and historical study of the work of designers, particularly those with an interest in product and object design. This module engages students through the study of Time Capsules as designed objects within historical, modern and contemporary time periods. It provides students with opportunities to explore the possibilities between art and design, by designing and making objects with aesthetic qualities and symbolic meaning.</p>			
<b>Assessment</b>	Designing and Making: <i>Visual Design Project – Time Capsule 20%</i>		Critical and Historical: <i>Submission of Visual Design Journal 10%</i>	
<b>Syllabus Outcomes</b>	<b>Designing and Making</b> - Outcomes: DM1, DM2, DM3, DM4, DM5, DM6 <b>Critical and Historical Studies</b> - Outcomes: CH1, CH2, CH3, CH4			
<b>Frames</b>	Structural	Subjective	Cultural	Postmodern
Term 2	Week 1-10, Term 2 (35 Hours)			
<p><b>GD2: Illustration and Cartooning</b> <i>Stickers and Badges</i></p> <p><b>Case Study Artists/Designers:</b> Shepard Fairey Reg Mombassa Keith Haring Mulga Hydro 74 Zoltron</p>	<p>This module provides students with opportunities to produce illustrations and cartoons with different purposes and for different audiences, informed by the critical and historical study of the work of designers, particularly those with an interest in graphic design. Students will apply the basics of graphic design to distribution media, designing graphics for badges and stickers. Students will learn about the purpose and power of distribution artforms to represent a view or cause.</p>			
<b>Assessment</b>	Designing and Making: <i>Visual Design Project – Badges and Stickers 25%</i>		Critical and Historical: <i>Submission of Visual Design Journal 10%</i>	
<b>Syllabus Outcomes</b>	<b>Designing and Making</b> - Outcomes: DM1, DM2, DM3, DM4, DM5, DM6 <b>Critical and Historical Studies</b> - Outcomes: CH1, CH2, CH3, CH4			
<b>Frames</b>	Structural	Subjective	Cultural	Postmodern

<b>Term 3</b>	<b>Week 1-10, Term 3 (35 Hours)</b>			
<b>IED1: Structures and Environments</b> <b><i>Redesigning Buildings and Environments</i></b>  <b>Case Study Artists/Designers:</b> Frank Gehry Frank Lloyd Wright Zaha Hadid Bob Cassilly	This module provides students with opportunities to design buildings, shelters and the spaces around them, informed by the critical and historical study of the work of designers, particularly those with an interest in interior design, built environment and architecture. Students will explore the parameters and work within the specifications of design briefs related to the planning and construction or redesigning of a building or environment, designing an environment for a particular group or designing structures for a specific geographic context.			
<b>Assessment</b>	Designing and Making: <i>Visual Design Project – Designed Environment</i> 25%		Critical and Historical: <i>Submission of Visual Design Journal</i> 10%	
<b>Syllabus Outcomes</b>	<b>Designing and Making</b> - Outcomes: DM1, DM2, DM3, DM4, DM5, DM6 <b>Critical and Historical Studies</b> - Outcomes: CH1, CH2, CH3, CH4			
<b>Frames</b>	Structural	Subjective	Cultural	Postmodern

## **4 Aim**

Visual Design Stage 6 is designed to enable students to gain an increasing accomplishment and independence in their representation of ideas in different fields of design and to understand and value how graphic, wearable, product, and interior/exterior design invite different interpretations and explanations.

## **5 Objectives**

Students will develop knowledge, skills and understanding through the making of works in design that lead to and demonstrate conceptual and technical accomplishment.

Students will develop knowledge, skills and understanding that lead to increasingly accomplished critical and historical investigations of design.

## 6 Course Structure

The time allocated is flexible within the range of 20-40 hours. When deciding on the duration of modules consideration should be given to:

- the time required to achieve outcomes
- the level to which outcomes will be achieved
- the extent to which content in modules will be explored
- the requirements of TAFE courses, for which there may be potential for credit transfer.

### Possible course options:

Course	Units	Hours	Structure
1 year (Year 11 or Year 12)	1	60	2–3 modules
1 year (Year 11 or Year 12)	2	120	3–6 modules
2 year (Year 11 and Year 12)	1	120	3–6 modules
2 year (Year 11 and Year 12)	2	240	6–12 modules

### Fields and Modules

The Occupational, Health and Safety Module is mandatory in any course offered and should be delivered as an integrated module.

Each of the other modules, with the exception of the Individual/Collaborative Design Project, is situated within a field of practice — graphic design, wearable design, product design, and interior/exterior design. There are three modules in each field. The additional module Individual/Collaborative Project extends students' learning experiences and may reflect students' increasing interests and desire to specialise in one or more of these fields or explore the connections further between the fields.

Modules may be selected from any of the fields (as well as the Individual/Collaborative Project) to construct a 60-hour, 120-hour or 240-hour course. The course must also include the Work Health and Safety Module. The diagram on the next page provides further detail.

<b>Graphic Design</b>	<b>Modules: 20-40 hours</b>	
	GD1	Publications and Information
	GD2	Illustration and Cartooning
	GD3	Interactive and Multimedia

**and/or**

<b>Wearable Design</b>	<b>Modules: 20-40 hours</b>	
	WD1	Clothing and Image
	WD2	Jewellery and Accessories
	WD3	Textiles

**and/or**

<b>Product Design</b>	<b>Modules: 20-40 hours</b>	
	PD1	Packaging
	PD2	Furniture
	PD3	Industrial

**and/or**

<b>Interior/Exterior Design</b>	<b>Modules: 20-40 hours</b>	
	IED1	Structures and Environments
	IED2	Stage Sets and Props
	IED3	Interiors

**and/or**

<b>General</b>	<b>Module: 20-40 hours</b>	
	GM	Individual/Collaborative Design Project

**and**

<b>Mandatory (any Field(s))</b>	<b>Module: 3-6* hours</b>	
	MM	Work Health and Safety

\*depending on length of course selected

## 7 Objectives and Outcomes

### 7.1 Table of Objectives and Outcomes

Objectives	Outcomes	Modules
<b>Students will develop:</b>	<b>A student:</b>	
<ul style="list-style-type: none"> <li>knowledge, skills and understanding through the making of works in design that lead to and demonstrate conceptual and technical accomplishment</li> </ul>	DM1 generates a characteristic style that is increasingly self-reflective in their design practice DM2 explores concepts of artist/designer, kinds of designed works, interpretations of the world and audience/consumer response in their making of designed works DM3 investigates different points of view in the making of designed works DM4 generates images and ideas as representations/simulations DM5 develops different techniques suited to artistic and design intentions in the making of a range of works DM6 takes into account issues of Work Health and Safety in the making of a range of works	All
<ul style="list-style-type: none"> <li>knowledge, skills and understanding that lead to increasingly accomplished critical and historical investigations of design</li> </ul>	CH1 generates in their critical and historical practice ways to interpret and explain design CH2 investigates the roles and relationships among the concepts of artist/designer, work, world and audience/consumer in critical and historical investigations CH3 distinguishes between different points of view, using the frames in their critical and historical investigations CH4 explores ways in which histories, narratives and other accounts can be built to explain practices and interests in the fields of design	All

Note: DM – Designing and Making

CH – Critical and Historical Studies



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 Visual Design
<b>Teacher:</b>	Mrs Aubrey / Mr Moore
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	Module 1: Packaging – Time Capsules
<b>Date Issued:</b>	Week 4, Term 1
<b>Date and Time Due:</b>	Week 9, Term 1
<b>Weighting:</b>	Making 20% Critical and Historical 10%
<b>Presentation and Submission Guidelines:</b>	Submit to classroom teacher by 3.20pm
<b>Marking Process:</b>	Marked by classroom teacher and written feedback provided.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
DM1	<i>generates a characteristic style that is increasingly self-reflective in their design practice</i>
DM2	<i>explores concepts of artist/designer, kinds of designed works, interpretations of the world and audience/consumer response in their making of designed works</i>
DM4	<i>generates images and ideas as representations/simulations</i>
CH1	<i>generates in their critical and historical practice ways to interpret and explain design</i>

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____



## Task Description:

### Module 1: Time Capsules

#### Part A:

##### Time Capsule Kit

This task requires students to design and create a prototype for a sell-able Time Capsule kit that could be purchased and personalised by a consumer. Students will need to design and create the time capsule packaging and at least 3 items as part of their kit.

- You must complete a planning page in your journal, a design brief (template on Canvas) and a Mood board.
- You MUST create the container/packaging for your time capsule, which may be a tube, box or template that could be cut and pasted together. The packaging may feature a design for a specific theme, or allow the consumer to personalise it themselves.
- You MUST also include at least 3 items to be sold with your time capsule kit - such as a template for the consumer to fill out or write on, hang tags to attach to objects, 'Do Not Tamper' stickers.
- You MUST:

-Design with a consumer in mind, such as an age group or event or theme (e.g. Wedding, Birth, Pet, Child, Adult)

-Design using a theme which uses appropriate colours, imagery, logo etc.

- You MAY:

-Choose to create a brand for your Time Capsule and create a logo to be featured on your kit.

All planning components and your completed kit must be submitted on the due date.

#### Part B: Personal Time Capsule

This task requires students to design and create a personal time capsule that will be opened at the end of the HSC. Students must consider the time capsule's form and its contents as a designed object and how it will reflect their life, personality and environment at home, work and school.

- You must complete, in your design journal, a design brief using the attached template. This is worth 10% of your final result and should be completed in detail, using design relevant language.
- You must, in your design journal:
  - Create a mood board and collect between 5-10 images to inspire the design development of the time capsule. Images could include existing time capsules, themes which interest you, material ideas, colour schemes etc.
  - Sketch 3 possible designs - In your design, you must consider the shape, form, size and surface decoration of the capsule.
  - Mind Map possible contents, ensuring that the objects and contents are suitable to your design
  - Create a final design and final list of contents – annotated with design elements, aesthetic features and functional qualities.CONSIDER: Drawing on the elements you previously designed in your KIT such as hang tags, stickers, templates etc.

- Your completed time capsule must be resolved and refined in its presentation with a consideration of colour scheme, surface decoration, shape and functionality.

- Your contents must be appropriate for the task, appropriate to school and reflective of yourself. Whilst not required you should consider:

- Photographs
- A letter to your future self
- USB with music that you enjoy
- Precious objects
- Messages from friends or family
- Your favourite snack



<b>Success Criteria:</b>
<p>Successful students:</p> <ul style="list-style-type: none"> <li>• Utilise research, investigation and experimentation to form their idea and design process</li> <li>• Create preliminary designs that inform their final design</li> <li>• Make sophisticated design choices that link to their design brief and produce a refined, innovative, creative time capsule that reflects their intentions</li> <li>• Submit all assessment criteria (listed above)</li> </ul>

<b>Making and Designing Marking Guidelines: 20%</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Outstanding <ul style="list-style-type: none"> <li>- makes a sophisticated visual design artwork with a perceptive understanding of how the subjective and cultural frames and conceptual framework can be used to develop meaning and represent ideas and interests.</li> <li>- demonstrates highly developed technical accomplishment and refinement in making and resolving sophisticated visual design artworks in the forms of packaging and object. They experiment, work with autonomy, and reflect on their actions, judgements and artistic intentions to make informed choices about their visual design artworks.</li> </ul> </li> </ul>	<p>A 20-18</p>
<ul style="list-style-type: none"> <li>• High <ul style="list-style-type: none"> <li>- makes an accomplished visual design artwork with a clear understanding of how the subjective and cultural frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates well-developed technical accomplishment and refinement to make visual design artworks in the forms of packaging and object. They experiment and reflect on their actions, judgements and artistic intentions to make visual design artworks.</li> </ul> </li> </ul>	<p>B 17-15</p>
<ul style="list-style-type: none"> <li>• Sound <ul style="list-style-type: none"> <li>- makes a visual design artwork with an understanding of how the frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests.</li> <li>- demonstrates sound technical accomplishment in making visual design artworks in the forms of print and object that represent their actions, judgements and intentions.</li> </ul> </li> </ul>	<p>C 14-10</p>
<ul style="list-style-type: none"> <li>• Basic <ul style="list-style-type: none"> <li>- makes a visual design artwork, that may be developing or unresolved and may identify how the frames and agencies of the conceptual framework can be used to explore ideas and interests.</li> <li>- represents their artistic intentions in visual design artworks in the forms of print and object, demonstrating a developing technical accomplishment, however, aspects may be disjointed, incohesive or unresolved.</li> </ul> </li> </ul>	<p>D 9-6</p>
<ul style="list-style-type: none"> <li>• Limited <ul style="list-style-type: none"> <li>- makes a visual design artwork with an elementary understanding of the frames and the conceptual framework, that is incomplete, unresolved and unrefined.</li> <li>- Attempts to recognise that ideas, interests in the world and artistic intentions can be represented in the forms of packaging and object, and demonstrates very limited technical accomplishment.</li> </ul> </li> </ul>	<p>E 5-1</p>
<ul style="list-style-type: none"> <li>• Student fails to submit task/plagiarism</li> </ul>	<p>N</p>

<b>Critical and Historical Marking Guidelines: 10%</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Outstanding <ul style="list-style-type: none"> <li>- submits a sophisticated design brief that comprehensively explains and evaluates the final design project, drawing on designers and artists in reference to their own design process and deeply interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> </ul> </li> </ul>	<p>A 10</p>
<ul style="list-style-type: none"> <li>• High <ul style="list-style-type: none"> <li>- submits a quality design brief that comprehensively explains and evaluates the final design project, drawing on designers and artists in reference to their own design process and interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> </ul> </li> </ul>	<p>B 9-8</p>
<ul style="list-style-type: none"> <li>• Sound</li> </ul>	<p>C</p>

<ul style="list-style-type: none"> <li>- submits a sound design brief that explains and evaluates the final design project, acknowledging designers and artists as references and interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> </ul>	7-5
<ul style="list-style-type: none"> <li>• Basic <ul style="list-style-type: none"> <li>- submits a basic design brief that explains and evaluates the final design project, acknowledging designers and artists as references and describing the functionality and aesthetic qualities of their own design work.</li> </ul> </li> </ul>	D 4-3
<ul style="list-style-type: none"> <li>• Limited <ul style="list-style-type: none"> <li>- submits a design brief that may be incomplete or in progress, that may only describe the final design project. The brief may mention or omit designers and artists as references and may describe limited qualities of their own design work</li> </ul> </li> </ul>	E 2-1
<ul style="list-style-type: none"> <li>• Student fails to submit task/plagiarism</li> </ul>	N

Feedback:	
Medals	Missions
<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

<b>Final mark/grade:</b>	
Student Reflection:	



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 Visual Design
<b>Teacher:</b>	Mrs Aubrey / Mr Moore
<b>Assessment Task Number:</b>	2
<b>Assessment Task Name:</b>	GD2: Illustration and Cartooning: Badges and Stickers
<b>Date Issued:</b>	Term 2, Week 5
<b>Date and Time Due:</b>	Term 2, Week 8
<b>Weighting:</b>	Critical and Historical: 10% Designing and Making: 25%
<b>Presentation and Submission Guidelines:</b>	Submit to classroom teacher by the end of 3.20pm
<b>Marking Process:</b>	Marked by classroom teacher, written feedback.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
DM1	<i>generates a characteristic style that is increasingly self-reflective in their design practice</i>
DM2	<i>explores concepts of artist/designer, kinds of designed works, interpretations of the world and audience/consumer response in their making of designed works</i>
DM3	<i>investigates different points of view in the making of designed works</i>
DM4	<i>generates images and ideas as representations/simulations</i>
DM5	<i>develops different techniques suited to artistic and design intentions in the making of a range of works</i>
DM6	<i>takes into account issues of Work Health and Safety in the making of a range of works</i>
CH1	<i>generates in their critical and historical practice ways to interpret and explain design</i>
CH2	<i>investigates the roles and relationships among the concepts of artist/designer, work, world and audience/consumer in critical and historical investigations</i>
CH3	<i>distinguishes between different points of view, using the frames in their critical and historical investigations</i>

<b>Participant Declaration:</b>
I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.
<i>Participants Signature:</i> _____

Task Description:
<p><b>Module 1: Badges and Stickers</b></p> <p>You are to submit the following work completed to the highest standard:</p> <p><b>Visual Design Project – In line with assigned theme.</b></p> <ul style="list-style-type: none"> <li>- Minimum 2 Badge Designs, and at least one completed badge.</li> <li>- A sticker pack of 10 stickers, printed onto an A4 sticker sheet. Stickers should reflect a consistent theme but range of imagery and text and engage the viewer through their aesthetic appeal.</li> </ul> <p><b>Visual Design Diary</b></p> <ul style="list-style-type: none"> <li>- Design Brief</li> <li>- Mood Board</li> <li>- Preliminary sketches</li> </ul> <p><b>Critical and Historical Visual Design Tasks</b></p> <ul style="list-style-type: none"> <li>- Research Task on One of Three artists – Reg Mombasa, Mulga or Keith Haring.</li> <li>- <b>Complete the following question:</b> <i>Evaluate the effectiveness of the artist and artworks you have researched in communicating a persuasive idea or issue. Support your opinion with specific examples. Answer using two TEEEC paragraphs.</i></li> <li>- <i>Critical and Historical writing should reflect an understanding of the artists practice and an understanding of ways to interpret the artist’s work using knowledge of the artist-artwork-world-audience.</i></li> </ul>

Success Criteria:
<p>Successful students:</p> <ul style="list-style-type: none"> <li>• Utilise research, investigation and experimentation to form original idea and design concepts</li> <li>• Create at least 2 preliminary designs that inform their final design</li> <li>• Make sophisticated design choices that link to their design brief and produce refined, innovative, creative stickers and badge designs that reflect their intentions.</li> <li>• Submit all assessment criteria (listed above)</li> </ul>

Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>• Outstanding <ul style="list-style-type: none"> <li>- makes sophisticated visual design artworks with a perceptive understanding of how the four frames and conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates highly developed technical accomplishment and refinement in making and resolving sophisticated visual design artworks in the forms of illustration. They experiment, work with autonomy, and reflect on their actions, judgements and artistic intentions to make informed choices about their visual design artworks.</li> <li>- demonstrates a perceptive understanding of the function of and relationships between the agencies of the conceptual framework, and how the frames can be used to represent a point of view.</li> </ul> </li> </ul>	<p>A</p> <p>25-21</p>
<ul style="list-style-type: none"> <li>• High <ul style="list-style-type: none"> <li>- makes accomplished visual design artworks with a clear understanding of how the four frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates well-developed technical accomplishment and refinement to make visual design artworks in the forms of illustration. They experiment and reflect on their actions, judgements and artistic intentions to make visual design artworks.</li> <li>- demonstrates a clear understanding of the function of and relationships between the agencies of the conceptual framework, and how the frames can be used to represent a point of view.</li> </ul> </li> </ul>	<p>B</p> <p>20-16</p>

<ul style="list-style-type: none"> <li>• Sound <ul style="list-style-type: none"> <li>- makes a variety of visual design artworks with an understanding of how the frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates sound technical accomplishment in making visual design artworks in the forms of print and object that represent their actions, judgements and artistic intentions.</li> <li>- demonstrates understanding of the function of and relationships between some agencies of the conceptual framework, and how some frames can be used to represent a point of view.</li> </ul> </li> </ul>	C 15-11
<ul style="list-style-type: none"> <li>• Basic <ul style="list-style-type: none"> <li>- makes visual design artworks, and identifies how some of the frames and agencies of the conceptual framework can be used to explore ideas and interests in the world.</li> <li>- represents their artistic intentions in visual design artworks in the forms of illustration, demonstrating aspects of technical accomplishment.</li> <li>- recognises the function of, and relationships between, some agencies of the conceptual framework, and how some frames can be used to represent a point of view.</li> </ul> </li> </ul>	D 10-6
<ul style="list-style-type: none"> <li>• Limited <ul style="list-style-type: none"> <li>- makes simple visual design artworks with an elementary understanding of the frames and the conceptual framework.</li> <li>- recognises that ideas, interests in the world and artistic intentions can be represented in the forms of illustration and demonstrates very limited technical accomplishment.</li> <li>- with teacher support, recognises some function of and relationships between some agencies of the conceptual framework, and that the frames can be used to represent a point of view.</li> </ul> </li> </ul>	E 5-1
<ul style="list-style-type: none"> <li>• Student fails to submit task/plagiarism</li> </ul>	N
<b>Marking Guidelines:</b>	<b>Marks</b>
<ul style="list-style-type: none"> <li>• Outstanding <ul style="list-style-type: none"> <li>- submits a sophisticated design brief that comprehensively explains and evaluates the final design project, drawing on designers and artists in reference to their own design process and deeply interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> <li>- completes all critical and historical tasks to an exceptional standard demonstrating a deep understanding of artist practice and the artists relationship to the world, artwork and audience.</li> </ul> </li> </ul>	A 10-9
<ul style="list-style-type: none"> <li>• High <ul style="list-style-type: none"> <li>- submits a quality design brief that comprehensively explains and evaluates the final design project, drawing on designers and artists in reference to their own design process and interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> <li>- completes all critical and historical tasks to a high standard demonstrating a comprehensive understanding of artist practice and the artists relationship to the world, artwork and audience.</li> </ul> </li> </ul>	B 8-7
<ul style="list-style-type: none"> <li>• Sound <ul style="list-style-type: none"> <li>- submits a sound design brief that explains and evaluates the final design project, acknowledging designers and artists as references and interpreting the design qualities of works studied, as well as, the functionality and aesthetic qualities of their own design work.</li> <li>- completes all critical and historical tasks to a sound standard demonstrating a competent understanding of artist practice and the artists relationship to the world, artwork and audience.</li> </ul> </li> </ul>	C 6-5
<ul style="list-style-type: none"> <li>• Basic <ul style="list-style-type: none"> <li>- submits a basic design brief that explains and evaluates the final design project, acknowledging designers and artists as references and describing the functionality and aesthetic qualities of their own design work.</li> <li>- completes some critical and historical tasks demonstrating an emerging understanding of artist practice and the artists relationship to the world, artwork and audience.</li> </ul> </li> </ul>	D 4-3
<ul style="list-style-type: none"> <li>• Limited <ul style="list-style-type: none"> <li>- submits a design brief that may be incomplete or in progress, that may only describe the final design project. The brief may mention or omit designers and artists as references and may describe limited qualities of their own design work.</li> <li>- completes a limited amount of critical and historical tasks demonstrating a restricted understanding of artist practice and the artists relationship to the world, artwork and audience.</li> </ul> </li> </ul>	E 2-1
<ul style="list-style-type: none"> <li>• Student fails to submit task/plagiarism</li> </ul>	N

Feedback:	
<b>Medals</b>  •	<b>Missions</b>  •

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	



Hunter River High School  
ASSESSMENT TASK NOTIFICATION

<b>Student Name:</b>	
<b>Subject/Course:</b>	11 Visual Design
<b>Teacher:</b>	Mrs Aubrey / Mr Moore
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	IED1: Structures and Environments: Redesigning Buildings and Environments
<b>Date Issued:</b>	Week 5, Term 3
<b>Date and Time Due:</b>	Week 7, Term 3
<b>Weighting:</b>	Designing and Making: 25% Critical and Historical 10%
<b>Presentation and Submission Guidelines:</b>	Submit to classroom teacher by 3.20pm
<b>Marking Process:</b>	Marked by classroom teacher, written feedback.

<b>Outcomes Assessed:</b>	
<b>Syllabus Code</b>	<b>Syllabus Description</b>
DM1	<i>generates a characteristic style that is increasingly self-reflective in their design practice</i>
DM2	<i>explores concepts of artist/designer, kinds of designed works, interpretations of the world and audience/consumer response in their making of designed works</i>
DM3	<i>investigates different points of view in the making of designed works</i>
DM4	<i>generates images and ideas as representations/simulations</i>
DM5	<i>develops different techniques suited to artistic and design intentions in the making of a range of works</i>
DM6	<i>takes into account issues of Work Health and Safety in the making of a range of works</i>
CH1	<i>generates in their critical and historical practice ways to interpret and explain design</i>
CH2	<i>investigates the roles and relationships among the concepts of artist/designer, work, world and audience/consumer in critical and historical investigations</i>
CH3	<i>distinguishes between different points of view, using the frames in their critical and historical investigations</i>
CH4	<i>explores ways in which histories, narratives and other accounts can be built to explain practices and interests in the fields of design</i>



**Participant Declaration:**

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

Participants Signature: \_\_\_\_\_

**Task Description:**

You are to redesign an existing space that fits into the following categories –

- Playgrounds
- Buildings (commercial or educational)
- Parklands

You must complete and submit:

- *Criteria 1:* Design Brief and research of existing designed environment
- *Criteria 2:* Mood Board
- *Criteria 3:* Generation of ideas (preliminary sketches) and annotations
- *Criteria 4:* Completed design (**digital or drawn**)

**Success Criteria:**

Successful students:

- Utilise research, investigation and experimentation to form original idea and design concepts
- Create a range of preliminary designs that inform their final design
- Make sophisticated design choices that link to their design brief and produce a refined, innovative, and creative designed environment that reflects their intentions and purpose
- Submit all assessment criteria (listed above)

Marking Guidelines:	Marks
<ul style="list-style-type: none"> <li>• Outstanding               <ul style="list-style-type: none"> <li>- makes sophisticated visual design artworks with a perceptive understanding of how the four frames and conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates highly developed technical accomplishment and refinement in making and resolving sophisticated visual design artworks in the forms of print and object. They experiment, work with autonomy, and reflect on their actions, judgements and artistic intentions to make informed choices about their visual design artworks.</li> <li>- demonstrates a perceptive understanding of the function of and relationships between the agencies of the conceptual framework, and how the frames can be used to represent a point of view.</li> </ul> </li> </ul>	A
<ul style="list-style-type: none"> <li>• High               <ul style="list-style-type: none"> <li>- makes accomplished visual design artworks with a clear understanding of how the four frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> <li>- demonstrates well-developed technical accomplishment and refinement to make visual design artworks in the forms of print and object. They experiment and reflect on their actions, judgements and artistic intentions to make visual design artworks.</li> <li>- demonstrates a clear understanding of the function of and relationships between the agencies of the conceptual framework, and how the frames can be used to represent a point of view.</li> </ul> </li> </ul>	B
<ul style="list-style-type: none"> <li>• Sound               <ul style="list-style-type: none"> <li>- makes a variety of visual design artworks with an understanding of how the frames and agencies of the conceptual framework can be used to develop meaning and represent ideas and interests in the world.</li> </ul> </li> </ul>	C

<ul style="list-style-type: none"> <li>- demonstrates sound technical accomplishment in making visual design artworks in the forms of print and object that represent their actions, judgements and artistic intentions.</li> <li>- demonstrates understanding of the function of and relationships between some agencies of the conceptual framework, and how some frames can be used to represent a point of view.</li> </ul>	
<ul style="list-style-type: none"> <li>• Basic <ul style="list-style-type: none"> <li>- makes visual design artworks, and identifies how some of the frames and agencies of the conceptual framework can be used to explore ideas and interests in the world.</li> <li>- represents their artistic intentions in visual design artworks in the forms of print and object, demonstrating some technical accomplishment.</li> <li>- recognises the function of, and relationships between, some agencies of the conceptual framework, and how some frames can be used to represent a point of view.</li> </ul> </li> </ul>	D
<ul style="list-style-type: none"> <li>• Limited <ul style="list-style-type: none"> <li>- makes simple visual design artworks with an elementary understanding of the frames and the conceptual framework.</li> <li>- recognises that ideas, interests in the world and artistic intentions can be represented in the forms of print and object, and demonstrates very limited technical accomplishment.</li> <li>- with teacher support, recognises some function of and relationships between some agencies of the conceptual framework, and that the frames can be used to represent a point of view.</li> </ul> </li> </ul>	E
<ul style="list-style-type: none"> <li>• Student fails to submit task/plagiarism</li> </ul>	N

Feedback:	
<p><b>Medals</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p><b>Missions</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>

<b>Final mark/grade:</b>	
<b>Student Reflection:</b>	



# **Work Studies**

## Work Studies

Syllabus Outcomes	Syllabus Component Weight	Task 1:	Task 2:	Task 3:
		My Working Life Report	Resume and Cover Letter	Workplace Investigation
		<u>Date:</u> Term 1 Week 7	<u>Date:</u> Term 2 Week 6	<u>Date:</u> Term 3 Week 7
		<u>Outcomes:</u> 1, 2 & 3	<u>Outcomes:</u> 2 & 5	<u>Outcomes:</u> 5, 6, 7 & 9
TASK WEIGHTINGS				
Knowledge & understanding	30%	10%	10%	10%
Skills	70%	20%	30%	20%
<b>Total</b>	<b>100%</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

### Outcomes

A student:

1. investigates a range of work environments
2. examines different types of work and skills for employment
3. analyses employment options and strategies for career management
4. assesses pathways for further education, training and life planning
5. communicates and uses technology effectively
6. applies self-management and teamwork skills
7. utilises strategies to plan, organise and solve problems
8. assesses influences on people's working lives
9. evaluates personal and social influences on individuals and groups

## Core: My Working Life

(30 indicative hours)

This module focuses on assisting students to take responsibility for planning and implementing their career plan and revising it as required.

### Outcomes

1. investigates a range of work environments
2. examines different types of work and skills for employment
3. analyses employment options and strategies for career management
4. assesses pathways for further education, training and life planning
5. communicates and uses technology effectively
6. applies self-management and teamwork skills
7. utilises strategies to plan, organise and solve problems
8. assesses influences on people's working lives
9. evaluates personal and social influences on individuals and groups

### Key Issues

#### Transition from school to work

- work phases in life
  - work responsibilities in home
  - school, other experiences and being ready for work
  - moving from school to work
  - working life
  - retirement
- current skills and interests
  - personal skill sets
  - awards, achievements, experiences and their relevance to employability
  - areas of career interest
- life and career goals
- the need to plan to achieve goals
- identifying pathways to achieve life and career goals
  - time needed to progress through pathways
  - work/life balance

#### Learning Experiences

##### Students:

- explain the transition process from school to work
- propose future changes to self, family and community over time
- explain the benefits to individuals of planning their transition from school to work
- identify personal skills and interests
- examine the main steps in the planning process and relate them to career planning
- investigate websites that are designed to assist the planning process
- examine the range of pathways from school to work
- investigate how family and friends identified their life and career goals
- discuss the options that people face throughout their lives with respect to their work–life balance.

### **Exploring career and life choices**

- the range of employment opportunities
- educational opportunities
- relationships between education, work and standard of living

### **Learning Experiences**

Students:

- identify main occupations and employment types
- briefly research information on career options
- explain how income tends to vary relative to age, qualifications and occupation
- investigate links between educational and career achievements and standards of living
- briefly examine options for further education and training
- assess the benefits of different community and workplace learning opportunities
- recognise the need to continue learning in formal and informal settings after school.

### **Assessing specific work and life situations**

- present work and life plans and aspirations
- achievements and personal best results – education, work, sport, interests, community involvement, volunteering and enterprising activities
- workplace skills, personal attributes, employment interests and further education
- family and community commitments

### **Learning Experiences**

Students:

- evaluate their current work and life plans
- identify their strengths across a broad range of activities
- assess their strengths and achievements in terms of workplace skills
- identify factors that have contributed to their strengths and achievements and link them to their education, work-related skills, personal attributes and career interests.

### **Identifying future aspirations**

- life goals: lifestyle, income, independence, working conditions, employment stability and contributions to community/society
- simple, realistic and achievable career and life goals

### **Learning Experiences**

Students:

- express their aspirations for the future
- research in detail a limited number of realistic career options and their requirements
- draft several career-focused goals that are simple, realistic and achievable over a few years
- describe values and ideals that will influence their desired career pathway and approach to work.

## **Developing a career plan**

- elements of a career plan
  - work-related skills, personal attributes and education
  - work, enterprise and community learning and career prospects
  - building connections for career and community/workplace opportunities
- support for a career plan
  - networks and connections
  - financial and assistance requirements
  - tertiary qualifications and entry requirements
  - developing workplace skills and personal qualities
  - work placement, work experience, casual employment and volunteering experiences
- job application process
  - types of job applications
  - record keeping and a personal portfolio
- implementing, monitoring and revising a career plan
- seeking assistance

## **Learning Experiences**

### **Students:**

- assess the role of education, including vocational education and training in preparation for employment
- prepare an action plan to achieve career goals
- research in detail the educational qualifications needed to achieve career goals and break the achievement of these down into a sequence of smaller steps
- identify appropriate people in the school, TAFE college, family and community to assist achievement of goals
- obtain the necessary resources to achieve career goals
- establish a portfolio of broad achievements that can be built over time
- discuss why it is important to maintain an appropriate personal online profile.



<b>Student Name:</b>	
<b>Subject/Course:</b>	Work Studies
<b>Teacher:</b>	
<b>Assessment Task Number:</b>	1
<b>Assessment Task Name:</b>	My Working Life Report
<b>Date Issued:</b>	Monday 24th Feb 2025
<b>Date and Time Due:</b>	Friday 14 March 2025
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Students will be allocated class time during weeks 5 & 6 to complete coursework associated with the task, the rest will be completed at home.
<b>Presentation and Submission Guidelines:</b>	Students are to complete the task on the computer and submit a hard copy, printed task by the due date. Students are to submit: -Graphs for the results of your interviews/surveys, including a general statement for each. -Answers to the questions interpreting the data -Marking criteria (over the page) with your name on it.
<b>Marking Process:</b>	Mrs Mason will be marking the tasks based on the criteria over the page.

#### Outcomes Assessed:

Syllabus	Syllabus Description
1	investigates a range of work environments
2	examines different types of work and skills for employment
3	analyses employment options and strategies for career management



### Task Description:

In this course you are learning about working life. You are learning concepts relevant to the workplace and developing knowledge, skills, values and attitudes needed to participate in the work environment. This task will enable you to implement a range of survey techniques. You are required to present your findings in graphs and written form.

#### **Report**

1. **Conduct a survey** to investigate the opinions of 2 working adults on the issues of educational qualifications, work and lifestyle. See the questions you need to answer below to help you design your survey questions. It is recommended that you used at least 6 questions that are easily graphed (10 marks)

#### **2. Graphs**

A) Draw a graph for each of your results. Use graphing conventions including a title, labels, an accurate scale and appropriate units of measure. You may use a computer program to enter the information and generate the graphs i.e. Google Forms. (5 marks)

B) Write a general statement about each graph. (5 marks)

#### **3. Questions**

Use your findings to answer the following questions:

a) **Explain** why educational qualifications important for employment (10 marks)

b) **Outline** the main skills required for obtaining and maintaining employment (5 marks)

c) **Outline** strategies for career management (a long-lasting career) (5 marks)

d) Write a report (half to one page) to show the **relationship between educational qualifications, work and lifestyle**. (10 marks)

### Success Criteria:

Students should create a survey with at least 10 questions. Google Forms or survey monkey are useful online platforms to create surveys.

Students should conduct 2 surveys.

Results from the survey should be graphed using conventions such as a title, labels and include a description of each graph (an example of this can be found on Google Classroom).

Each of the questions should be answered in a minimum of 5-10 sentences and include examples from the surveys.

Students can submit drafts for feedback prior to the due date and the completed task be submitted before 3:20pm on the due date.

N Warnings will be given for non-attempts and non-submission

**Marking Guidelines:**

Student Name: \_\_\_\_\_

**1. Surveys**

Mark	A student in this range:	Total
9-10	<ul style="list-style-type: none"> <li>Creates at least 10 relevant survey questions and surveys 2 working adults</li> </ul>	
7-8	<ul style="list-style-type: none"> <li>Creates 7-9 relevant questions and/or surveys 2 working adults</li> </ul>	
5-6	<ul style="list-style-type: none"> <li>Creates 5-6 questions and/or surveys less than 2 working adults</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>Creates a few questions and/or surveys working adults</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>Creates a few questions</li> </ul>	

**2. Graphs**

Mark	A student in this range:	Total
9-10	<ul style="list-style-type: none"> <li>Applies appropriate graphing conventions e.g. title &amp; labels</li> <li>Constructs graphs that accurately reflect survey data</li> <li>Writes an accurate statement that provides information about the graphs</li> </ul>	
7-8	<ul style="list-style-type: none"> <li>Applies appropriate graphing conventions e.g. title &amp; labels</li> <li>Constructs graphs that accurately reflect survey data to some extent</li> <li>Writes statement that provides information about the graphs</li> </ul>	
5-6	<ul style="list-style-type: none"> <li>Applies some graphing conventions e.g. title &amp; labels</li> <li>Constructs graphs that somewhat reflects survey data</li> <li>Writes general comments about the graphs</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>Minimal graphing conventions used</li> <li>Constructs graphs that somewhat reflects survey data</li> <li>Writes general comments about the graphs</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>Graphs incomplete</li> </ul>	

**3. Questions**

**a) Explain why educational qualifications important for employment**

Mark	A student in this range:	Total
9-10	<ul style="list-style-type: none"> <li>● <b>Explains (cause and effect) in detail</b> why educational qualifications important for employment.</li> <li>● Includes <u>relevant, insightful</u> examples from the survey.</li> </ul>	
7-8	<ul style="list-style-type: none"> <li>● <b>Explains (cause and effect)</b> why educational qualifications important for employment.</li> <li>● Includes <u>relevant</u> examples from the survey.</li> </ul>	
5-6	<ul style="list-style-type: none"> <li>● <b>Describes (characteristics and features)</b> why educational qualifications important for employment.</li> <li>● Includes <u>relevant</u> examples from the survey.</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>● Provides some information about educational qualifications <u>and</u> employment.</li> <li>● Includes examples from the survey.</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>● Provides some information about educational qualifications <u>or</u> employment.</li> </ul>	

**b) Outline the main skills required for obtaining (getting) and maintaining employment**

Mark	A student in this range:	Total
5	<ul style="list-style-type: none"> <li>● <b>Outlines (gives an overview) in detail</b> of the main skills required for obtaining (getting) and maintaining employment</li> <li>● Includes <u>relevant, insightful</u> examples from the survey.</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>● <b>Outlines (gives an overview)</b> of the main skills required for obtaining (getting) and maintaining employment</li> <li>● Includes examples from the survey.</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>● Provides some information about obtaining and maintaining employment.</li> </ul>	

**c) Outline strategies for career management (a long-lasting career).**

Mark	A student in this range:	Total
5	<ul style="list-style-type: none"> <li>● <b>Outlines (gives an overview) in detail</b> of strategies for career management.</li> <li>● Includes <u>relevant, insightful</u> examples from the survey.</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>● <b>Outlines (gives an overview)</b> of strategies for career management.</li> <li>● Includes examples from the survey.</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>● Provides some information about career management.</li> </ul>	

**d) Show the relationship between educational qualifications, work and lifestyle.**



## Module 2: Preparing Job Applications (15–30 indicative hours)

This module focuses on assisting students to incorporate work-related achievements into their job applications.

### Outcomes

1. investigates a range of work environments
2. examines different types of work and skills for employment
3. analyses employment options and strategies for career management
4. assesses pathways for further education, training and life planning
5. communicates and uses technology effectively
6. applies self-management and teamwork skills
7. utilises strategies to plan, organise and solve problems
8. assesses influences on people's working lives
9. evaluates personal and social influences on individuals and groups

### Key Issues

#### What employers want

- **employees with positive personal attributes**
  - traits and behaviours
- **employees with a range of skills for employment**
  - current and applicable skills
- **qualifications and experience**
  - school
  - further education
  - experience in a workplace
  - casual work
  - volunteer
  - community
  - sporting
  - other

#### Learning Experiences

Students:

- discuss the need to demonstrate positive personal attributes
- discuss why integrity, motivation and resilience are good personal attributes for employment
- describe and record the workplace skills that they have demonstrated in different activities
- record their recent educational achievements, including personal successes
- record their achievements when participating in work situations
- record achievements when participating in voluntary, community, sporting and other interests.

## **Finding the right job**

- **job search**

- positions that are advertised – online, newspapers, noticeboards, employment agencies and labour-hire firms, careers advisers and careers expos
- positions that are not advertised – using networks and connections for recommendation to potential employers, making a direct approach to possible employers, work experience and work placement
- government assistance

### Learning Experiences

Students:

- research trends in the labour market, locally and nationally
- research and analyse job advertisements from a variety of sources
- explain the role of employment agencies and labour-hire firms
- research and analyse information about potential employers
- use networks and connections to assist job search activities
- use government-funded organisations to assist job search activities.

- **job suitability**

- personal preferences and qualifications
- possible income and working conditions
- future opportunities
- location and travel time

### Learning Experiences

Students:

- assess the suitability of a range of work environments
- examine a hypothetical position in terms of skills, experience and the stated criteria.

## **Preparing a formal job application**

- **seeking an interview**

- initial contact with the employer – in person, email, telephone or application form
- elements of a formal application – a covering letter, resume and details of referees

### Learning Experiences

Students:

- role play an initial contact with an employer
- prepare a formal job application for a hypothetical position – word process a covering letter and a resumé that responds to selection criteria, including contact details or statements from referees
- proofread the application for errors and possible improvements.

- **responding in an interview**

- interview preparation
- greeting the interviewers
- responding to questions
- asking questions
- concluding the interview

## Learning Experiences

Students:

- prepare for a hypothetical job interview
- role play meeting the interviewers in a simulated interview situation
- respond to questions in a simulated interview situation
- seek feedback on their interview.



<b>Student Name:</b>	
<b>Subject/Course:</b>	Work Studies
<b>Teacher:</b>	Mrs Mason
<b>Assessment Task Number:</b>	3
<b>Assessment Task Name:</b>	Workplace Investigation
<b>Date Issued:</b>	Term 3, Week 5
<b>Date and Time Due:</b>	Term 3, Week 7
<b>Weighting:</b>	30%
<b>Class Time Allocated:</b>	Students will be allocated class time during weeks 6 and 7 to complete coursework associated with the task.
<b>Presentation and Submission Guidelines:</b>	Students are to complete the task on the computer and submit it on Google Classroom by the due date. Students are to submit a PowerPoint presentation or Word Document that includes the information over the page. -Marking criteria (over the page) with your name on it.
<b>Marking Process:</b>	Mrs Mason will be marking the tasks based on the criteria over the page.

#### Outcomes Assessed:

Syllabus	Syllabus Description
5	Communicates and uses technology effectively.
6	Applies self-management skills.
7	Utilises strategies to plan, organise and solve problems.
9	Assesses influences on people's working lives

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



**Task Description:**

**You are to investigate the details on ONE occupation that interests you at this stage of your career planning.**

You are to use the following scaffold and guidelines to complete your research and present a report.

Your report can be presented in writing as a Word Document or in a PowerPoint presentation.

**Task instructions over page.**

**Success Criteria:**

- Students should create a PowerPoint presentation or Word Document
- Students should answer all questions above under the relevant subheadings.
- Length of answer is provided for each question and writing scaffold to be used where necessary.
- Students can submit drafts for feedback prior to the due date and the completed task be submitted before 3:20pm on the due date.
- Assessment can be handed in as a hard copy OR on Google Classroom.
- N Warnings will be given for non-attempts and non-submission.

Subheading	What should you look at?	What detail do you need to include?	Length of answer	Mark
<b>1. Duties and tasks</b>	The day-to-day tasks someone carries out in this occupation	<b>Describe</b> the key tasks that this occupation involves.	1 paragraph 2 images	/6
<b>2. Working Conditions</b>	Is the workplace indoors, outdoors? Does the worker have to do shift work or weekends?	<b>Describe</b> the working conditions in this occupation	1 paragraph 2 images	/6
<b>3. Personal Requirements</b>	The employability skills, abilities and personality traits that are best suited to this occupation.	<b>Explain</b> why the employability skills and traits are ideal for someone to have in this occupation.	2 scaffolded paragraphs 2 images	/12
<b>4. Related Jobs</b>	Other jobs that require similar skills to the occupation you are considering	<b>List</b> at least 3 jobs related to your chosen occupation.	3 bullet points 3 images	/6
<b>5. Earnings</b>	How much a worker earns in Australia in this occupation. Data about earnings is often described as an annual income before tax, or weekly income.	<b>Evaluate</b> what a worker in this occupation earns. Consider the average starting wage, and the top possible wage. Include your source of information.	1 scaffolded paragraph	/12
<b>6. Related Courses</b>	Courses that prepare someone to work in the occupation or career field.	<b>List</b> 3 courses that are related to this occupation.  <b>Give details of ONE</b> of the 3 courses: -Name of the course -Where the course is studied -How you apply for the course -The qualification gained on successfully completing the course -Would you consider completing this course	Bullet points with details as appropriate	/8

Student Name: \_\_\_\_\_

**1. Duties and Tasks /6**

Mark	A student in this range:	Total
5-6	<ul style="list-style-type: none"> <li>● <b>Describes</b> (the characteristics and features of) key tasks that this occupation involves in ONE paragraph.</li> <li>● Includes TWO relevant images.</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>● <b>Lists</b> key tasks that this occupation involves in.</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>● Provides some relevant information or images.</li> </ul>	

**2. Working Conditions /6**

Mark	A student in this range:	Total
5-6	<ul style="list-style-type: none"> <li>● <b>Describes</b> (the characteristics and features of) the working conditions in this occupation in ONE paragraph.</li> <li>● Includes TWO relevant images.</li> </ul>	
3-4	<ul style="list-style-type: none"> <li>● <b>Lists</b> the working conditions in this occupation</li> </ul>	
1-2	<ul style="list-style-type: none"> <li>● Provides some relevant information or images</li> </ul>	

**3. Personal Requirements /12**

Mark	A student in this range:	Total
10-12	<ul style="list-style-type: none"> <li>● <b>Explains (cause and effect) in detail</b> why the employability skills and traits are ideal for someone to have in this occupation.</li> <li>● Writes TWO <u>quality</u> paragraphs.</li> <li>● Includes TWO <u>relevant</u> images</li> </ul>	
7-9	<ul style="list-style-type: none"> <li>● <b>Explains (cause and effect)</b> why the employability skills and traits are ideal for someone to have in this occupation.</li> <li>● Writes TWO paragraphs.</li> <li>● Includes <u>relevant</u> images</li> </ul>	
4-6	<ul style="list-style-type: none"> <li>● <b>Describes (characteristics &amp; features)</b> why the employability skills and traits are ideal for someone to have in this occupation.</li> <li>● Writes paragraphs.</li> <li>● Includes images</li> </ul>	
1-3	<ul style="list-style-type: none"> <li>● Provides <u>some</u> information about why the employability skills and traits are ideal for someone to have in this occupation.</li> </ul>	

**4. Related Jobs /6**

## Module 1: In the Workplace (15–30 indicative hours)

This module focuses on employers, their expectations of employees and their responsibilities towards them.

Note: This module is a prerequisite for Module 7.

### Outcomes

1. investigates a range of work environments
2. examines different types of work and skills for employment
3. analyses employment options and strategies for career management
4. assesses pathways for further education, training and life planning
5. communicates and uses technology effectively
6. applies self-management and teamwork skills
8. assesses influences on people's working lives

### Key Issues

#### Employers' expectations

- **employees**
  - enthusiasm and initiative
  - willingness to learn quickly
  - mistakes can be part of the learning process
- **positive employee behaviours**
  - appropriately dressed and presented
  - positive and enthusiastic approach
  - well-prepared
  - focused on the job
  - exercises care in carrying out tasks
  - ethical attitude to work
- **work harmoniously with colleagues**
  - engage with colleagues positively
  - be respectful of gender, age and cultural differences
  - understand the organisational structure
  - recognise and respond to workplace protocols

#### Learning Experiences

Students:

- explain why it is important for a new employee to try to meet an employer's expectations
- demonstrate the capacity to communicate positively and interrelate effectively
- identify actions that help employees to work harmoniously with their colleagues in the workplace
- analyse a workplace code of conduct and its contribution to a harmonious and productive work environment

- explain what employees should do if they are worried that they are not meeting their employer's expectations
- identify examples of behaviours that could be in conflict with a hypothetical employer's expectations
- discuss what employees should do if their employer is not meeting their expectations in some areas.

## Employment obligations

- **types of employment**
  - casual
  - part-time
  - full-time
  - apprenticeships/traineeships
  - contract
  - labour-hire employment
  - voluntary/unpaid
  - self-employment
  - mixed modes

### Learning Experiences

Students:

- distinguish between the different types of employment
- discuss the advantages and disadvantages of the different types of employment
- explain how the preferred type of employment might change for people through their working lives.

- **types of employment contracts**

- awards – the minimum wage, awards for different occupations
- enterprise agreements
- individual contracts

### Learning Experiences

Students:

- distinguish between the minimum wage, award wages and wage rates determined in enterprise agreements
- explain how individuals are protected in awards and enterprise agreements
- outline the circumstances under which a person would be covered by an individual contract.

- **employers' responsibilities**

- wages and conditions
  - wage rates required by workplace laws, including 'trial' periods, overtime and penalty rates when applicable
  - working hours and meal breaks
  - access to leave entitlements – personal leave, recreation leave, parental leave
  - superannuation – eligibility and choice of fund
- safe and healthy systems of work
  - safe work practices

- anti-discrimination and anti-bullying procedures
- workers' compensation insurance
- other legal responsibilities
  - dismissal procedures are fair and legal
  - employees able to join a union of their choice

## Learning Experiences

### Students:

- research the award wage for the starting salary of a particular occupation
  - investigate the process for applying for a Tax File Number
  - identify the current rates for personal income tax
  - outline the steps that should be followed by employees who are bullied or experience discrimination in the workplace
  - explain why employees should choose their own superannuation fund
  - investigate the current unfair dismissal procedures and the associated avenues for appeal
  - explain what an employee should do if asked to do something that is likely to adversely affect their health and safety
  - discuss the case for and against joining a union.
- **employees' responsibilities**
    - follow lawful instructions
    - meet attendance and punctuality requirements
    - work conscientiously and competently
    - comply with work health and safety requirements
    - comply with anti-discrimination requirements
    - act ethically and in the interests of the employer

## Learning Experiences

### Students:

- outline the responsibilities of employees regarding attendance and punctuality, work health and safety requirements, and working conscientiously and ethically
- investigate what an employee should do if asked to follow an instruction that is not lawful
- identify situations where a employees might face disciplinary action because they have not acted in the interests of the employer.

## Indicators of success

- **performing work tasks**
  - the quantity and quality of the good or service produced
  - meeting work supervisor and customer expectations
  - self-management and personal attributes
  - initiative and enterprise
  - limit of responsibilities
- **working with others**
  - working cooperatively and contributing to positive team dynamics
  - working effectively with people from diverse social and cultural backgrounds and ages

- tracking progress of project plans or team goals
- receiving and giving feedback
- leadership
- **managing change**
  - staying calm and making good decisions
  - seeking assistance and clarification
  - coping with stress and conflict
  - problem-solving
  - planning and organising
  - using new technology
  - undertaking further education and training
- **personal satisfaction**
  - achieving success
  - earning respect of colleagues
  - maintaining a record of achievements

## Learning Experiences

### Students:

- discuss the dilemmas that might arise for employees who strive to achieve output targets and high-quality standards simultaneously
- identify actions by individuals that can lead to greater effectiveness in teams
- describe situations in which relatively new employees should use their initiative in the workplace
- examine the contribution of planning and organising to solving problems associated with change
- explain how change in the workplace can lead to stress and conflict
- investigate strategies that employees should address to cope with conflict and stress in the workplace
- discuss how further education and training can contribute to success at work.



<b>Student Name:</b>	
<b>Subject/Course:</b>	Work Studies
<b>Teacher:</b>	Mrs Mason
<b>Assessment Task Number:</b>	2
<b>Assessment Task:</b>	Preparing Job Applications
<b>Date Issued:</b>	Term 2, Week 3
<b>Date and Time Due:</b>	Term 2, Week 10 Tuesday 27 <sup>th</sup> June Individual times for interview will be allocated
<b>Weighting:</b>	40%
<b>Class Time Allocated:</b>	Students will be allocated class time (Term 2 Week 6-10) to complete coursework associated with the task.
<b>Presentation and Submission Guidelines:</b>	Students are to complete the task on the computer and submit a hard copy, printed task by the due date. Students are to submit: -Resume, using the scaffold provided -Cover letter -USI -Recent school report comments -Typing certificate -School certificates -Tax File Number
<b>Marking Process:</b>	Mrs Mason will be marking the tasks based on the criteria over the page.

#### Outcomes Assessed:

2. examines different types of work and skills for employment
5. communicates and uses technology effectively

#### Participant Declaration:

I declare that the completed assessment task I have submitted represents, to the best of my knowledge, my original work. Information from any other source has been correctly referenced. The material contained in the assessment tasks has not been submitted for any other form of credit, in any other learning environment.

*Participants Signature:* \_\_\_\_\_



### Task Description:

You are to apply for one of the jobs on the following page. You will need to create a resume, cover letter, create a transition portfolio, as well as have a mock interview with Mrs Mason for the position.

1. **Create a resume** using the template provided on Google Classroom. The resume must have correct spelling, punctuation **(15 marks)**.
2. **Create a cover letter** that meets the needs of the specific position you are applying for using the template provided on Google Classroom. The letter must address relevant qualifications and employability skills **(15 marks)**.

**NB: If there is a job you would like to apply for, please apply for it, rather than a fake one over the page.**

3. **Submit a Transition Portfolio** that includes; **(10 marks)**

- Unique Student Identification Number (USI)
- Recent school report comments
- Typing certificate
- School certificates and awards
- Tax File Number (TFN)

4. You will **interview** for the position you have selected. Mrs Mason will ask you questions about your employability skills, and you must provide examples of when you have demonstrated them. **(10 marks)**

### Success Criteria:

Students will be successful if they can:

- **Select one of the jobs** on the next page and *pretend* to apply for it.
- Submit a quality **resume** using the template provided.
- Submit a one-page **cover letter** that meets the needs of the specific position
- Uses the folder provided to create a **transition portfolio** that includes the relevant documentation listed above.
- Uses appropriate interview technique such as maintaining eye-contact and uses quality examples when addressing employability skills.
- Students can **submit drafts** for feedback prior to the due date.
- N Warnings will be given for non-attempts and non-submission.

## JOBS

### **ONE: Apprentice Carpenter CBF Construction Newcastle/Maitland**

CBF Construction is looking to expand our team. We have 2 position available 1<sup>st</sup> year Apprentice and a 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> year Apprentice with experience in installing timber or steel house frames.

The successful candidates must

- Be available for immediate start
- Be a team player
- Hold a white card
- Be honest and reliable
- Have a drivers license with there own transport
- Be hard working and highly motivated

CBF work is spread mainly across Newcastle/ Maitland region, from Monday to Friday with occasional overtime is required.

If you're interested, please provide current Resume to [clint@cbfconstruction.net.au](mailto:clint@cbfconstruction.net.au)

## OR

### **TWO: Early Childhood Traineeship The Learning Terrace Early Education, Care and Preschool**

The Learning Terrace Child Care Centre and Kindergarten is seeking candidates who have a keen interest and passion for early childhood education and are looking to obtain a Certificate III in Early Childhood Education and Care. This is an excellent pathway for further education and care opportunities in the early childhood sector. This is a full-time position in which you will work on the job whilst also receiving study time to support you in achieving your Certificate.

#### ***We are looking for an Educator who:***

- Is interested in developing strong relationships with children and their families
- Has the ability to work collaboratively
- Is flexible and reliable
- Will implement and uphold service policies and procedures
- Is joyful in their work and engagement with the service community.

#### ***What we need from you:***

- No previous completed qualifications in Early Childhood Education and Care
- A Working With Children Check
- A commitment to study and a dedication to learn through experience.

Apply online through Seek at

<https://www.seek.com.au/job/67086922?type=promoted#sol=18544707834c0b321aefdd32d53f9c0390145a57>

**OR**

**THREE:**

**Hospitality Worker**

If you have a Cert II in Hospitality or have a flair for dealing with people and food, this job is for you. The successful applicant will have outstanding communication skills, a friendly personality, a love of good quality, wholesome fresh food and a demonstrated ability to work as part of a fast-paced team. Work experience in the hospitality industry is an advantage.

Please apply in writing to:

Ms. Sally Jones, Manager, Karuah Wholefoods Café, 353 Myall River Road,  
Karuah, NSW, 2424.

## MARKING GUIDELINE

Student Name: \_\_\_\_\_

1. Write a **resume** using the template provided on Google Classroom (15 marks)

Mark	A student in this range:	Total
11-15	<ul style="list-style-type: none"><li>Has completed the resume using the template provided.</li><li>Ensures spelling, punctuation and formatting is accurate and error free.</li><li>Has most recent information listed first.</li><li>Has completed all sections of the resume.</li><li>Resume is ready to use to apply for jobs.</li></ul>	
6-10	<ul style="list-style-type: none"><li>Has completed the resume using the template provided.</li><li>Ensures spelling, punctuation and formatting is mostly accurate and error free.</li><li>Has most recent information listed first.</li><li>Has completed most sections of the resume.</li><li>Resume is almost ready to use to apply for jobs – needs some work.</li></ul>	
1-5	<ul style="list-style-type: none"><li>Has completed the resume but has not used the correct template as stated in task.</li><li>Spelling, punctuation, and formatting needs addressing.</li><li>Has completed some sections of the resume.</li><li>Resume is not ready to use to apply for jobs – needs considerable work.</li></ul>	

2) Write a **cover letter** using the template provided on Google Classroom (15 marks)

Mark	A student in this range:	Total
11-15	<ul style="list-style-type: none"><li>Has completed the cover letter using the template provided.</li><li>Writes a clear and comprehensive letter showing the relevance of education qualifications and experience to employment.</li><li>Addresses criteria in advertisement.</li><li>Spelling, punctuation, and grammar is accurate.</li><li>Letter is ready to use to apply for real jobs.</li></ul>	
6-10	<ul style="list-style-type: none"><li>Has completed the cover letter using the template provided.</li><li>Addresses some criteria in advertisement.</li><li>Spelling, punctuation, and grammar is mostly accurate.</li><li>Letter is almost ready to use to apply for real jobs.</li></ul>	
1-5	<ul style="list-style-type: none"><li>Has completed the cover letter but has not used the correct template as stated in task.</li><li>Addresses some criteria in advertisement.</li><li>Spelling, punctuation, and grammar needs attention.</li><li>Letter is not ready to use to apply for real jobs – needs considerable work.</li></ul>	

3. Submit a **Transition Portfolio** (10 marks)

Mark	A student in this range:	Total
7-10	<ul style="list-style-type: none"> <li>Has submitted a portfolio that includes all the following: a quality resume, cover letter, awards, certificates, school reports, Unique Student Identification Number, Tax File Number, and other relevant information.</li> </ul>	
4-6	<ul style="list-style-type: none"> <li>Has submitted a portfolio that includes a some of the following: resume, cover letter, awards, certificates, school reports, Unique Student Identification Number, Tax File Number, and other relevant information.</li> </ul>	
1-3	<ul style="list-style-type: none"> <li>Submitted a folio with one or two of the following: resume, cover letter, awards, certificates, school reports, Unique Student Identification Number, Tax File Number, and other relevant information.</li> </ul>	

4. Complete an **informal discussion/mock interview** (10 marks)

Mark	A student in this range:	Total
7-10	<ul style="list-style-type: none"> <li>Is punctual, smiles and uses an appropriate greeting.</li> <li>Maintained eye contact with interviewer.</li> <li>Spoke clearly.</li> <li>Answered all questions comprehensively.</li> <li>Provides quality examples of a range of employability skills.</li> <li>Thanked interviewer for their time.</li> </ul>	
4-6	<ul style="list-style-type: none"> <li>Answered all questions but needed to expand and give examples.</li> <li>Provided some information regarding employability skills.</li> <li>Sum up – was able to add something not already asked.</li> <li>Thanked interviewer for their time.</li> </ul>	
1-3	<ul style="list-style-type: none"> <li>Answered all questions but was too brief – not convincing.</li> <li>Little to no evidence of employability skills.</li> <li>Had nothing to add at end of the interview.</li> </ul>	