



Pacific  
Community  
Communauté  
du Pacifique



**EDUCATIONAL QUALITY AND  
ASSESSMENT PROGRAMME**

# ***Assessment Schedule 2016***

**South Pacific  
Form Seven  
Certificate**

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## SECTION A : NATURAL PROCESSES

*Demonstrate an Understanding of a geographic environment in the Pacific focussing on **interacting natural processes**.*

During your Form Seven Certificate course, you studied a Geographic Environment in the Pacific, focussing on the interacting natural processes within it.

Choose ONE of these natural processes you studied and write it in the frame provided below

Coastal, Fluvial, Tectonic Volcanic, Geomorphological, Climate, Hydrological, Biogeographical and Pedologic Process.

Natural Process Studied:

Name the Pacific type of Geographic Environment studied and the local area you will give as an example.

Type :

Example :

1.1	<p>Name <b>TWO</b> interacting natural processes operating in your chosen geographic environment.</p> <p><b>TWO</b> interacting natural processes</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding: 5px; text-align: center;"><b>1</b></td> <td style="width: 33%; padding: 5px; text-align: center;"><b>0</b></td> <td style="width: 33%; padding: 5px; text-align: center;"><b>NR</b></td> </tr> <tr> <td style="padding: 5px;">                     Students name <b>two</b> interacting processes                       - Tectonic processes cause volcanic eruption/tectonic hazards                      -Coastal processes create landforms                      -Climate/Soil influences biome distribution                      -Hydrological processes determine climate                 </td> <td style="padding: 5px;">                     Students name <b>one</b> process only OR provides an illogical answer                 </td> <td style="padding: 5px; text-align: center;">                     Not Attempted                 </td> </tr> </table>	<b>1</b>	<b>0</b>	<b>NR</b>	Students name <b>two</b> interacting processes  - Tectonic processes cause volcanic eruption/tectonic hazards -Coastal processes create landforms -Climate/Soil influences biome distribution -Hydrological processes determine climate	Students name <b>one</b> process only OR provides an illogical answer	Not Attempted	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%; text-align: center;">1</td><td style="width: 70%;"></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	1		0		NR																					
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1.2	<p>For your chosen geographic environment, identify <b>TWO</b> elements of the interacting natural processes.</p> <p><b>TWO</b> elements of the interacting natural processes</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%; padding: 5px;">Natural process</th> <th style="padding: 5px;">Elements</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Coastal</td> <td style="padding: 5px;">Waves, beaches, tides, erosion, deposition</td> </tr> <tr> <td style="padding: 5px;">Fluvial</td> <td style="padding: 5px;">Hydrological cycle, drainage pattern, erosion, transportation, deposition</td> </tr> <tr> <td style="padding: 5px;">Tectonic</td> <td style="padding: 5px;">Structure of the earth, tectonic plates, plate boundaries and plate movements, convection currents, tectonic hazards</td> </tr> <tr> <td style="padding: 5px;">Volcanic</td> <td style="padding: 5px;">Materials, types, landforms</td> </tr> <tr> <td style="padding: 5px;">Geomorphology</td> <td style="padding: 5px;">Folding. Faulting &amp; volcanism (earth building processes/initial landforms)</td> </tr> <tr> <td style="padding: 5px;">Climate</td> <td style="padding: 5px;">Hydrological cycle, layers of the atmosphere, elements, controls, urban heat island, climate extremes, climate change</td> </tr> <tr> <td style="padding: 5px;">Hydrology</td> <td style="padding: 5px;">Hydrological cycle, climate, surface water, groundwater, extremes – too much water, too little water</td> </tr> <tr> <td style="padding: 5px;">Biogeography</td> <td style="padding: 5px;">Biome, climate, soil, ecosystem, distribution/dispersal, threatened, endangered, endemic</td> </tr> <tr> <td style="padding: 5px;">Pedology</td> <td style="padding: 5px;">Pedogenesis, factors, profile, horizons, classification, degradation &amp; conservation</td> </tr> </tbody> </table>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding: 5px; text-align: center;"><b>1</b></td> <td style="width: 33%; padding: 5px; text-align: center;"><b>0</b></td> <td style="width: 33%; padding: 5px; text-align: center;"><b>NR</b></td> </tr> <tr> <td style="padding: 5px;">2 elements correctly identified</td> <td style="padding: 5px;">Incorrect element identified</td> <td style="padding: 5px; text-align: center;">Not Attempted</td> </tr> </table>	Natural process	Elements	Coastal	Waves, beaches, tides, erosion, deposition	Fluvial	Hydrological cycle, drainage pattern, erosion, transportation, deposition	Tectonic	Structure of the earth, tectonic plates, plate boundaries and plate movements, convection currents, tectonic hazards	Volcanic	Materials, types, landforms	Geomorphology	Folding. Faulting & volcanism (earth building processes/initial landforms)	Climate	Hydrological cycle, layers of the atmosphere, elements, controls, urban heat island, climate extremes, climate change	Hydrology	Hydrological cycle, climate, surface water, groundwater, extremes – too much water, too little water	Biogeography	Biome, climate, soil, ecosystem, distribution/dispersal, threatened, endangered, endemic	Pedology	Pedogenesis, factors, profile, horizons, classification, degradation & conservation	<b>1</b>	<b>0</b>	<b>NR</b>	2 elements correctly identified	Incorrect element identified	Not Attempted	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%; text-align: center;">1</td><td style="width: 70%;"></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	1		0		NR	
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1.3	<p>For your chosen geographic environment, name <b>TWO</b> natural features that result from the interacting natural processes.</p>																																	

**TWO** natural features of the interacting natural processes

Interacting natural processes	Natural features
Tectonic processes cause volcanic eruption	Mountains, trenches, students can name different types of volcanic landforms – cinder cones, composite volcanoes, calderas.....
Coastal processes create landforms	features of coastal erosion – headlands, caves, arches, stacks, stump Deposition – spits, bars, tombolos,
Climate/Soil influences biome distribution	Adaptive features of vegetation to complement climate and soil Decomposition - humification
Hydrological processes determine climate	Humidity, cloud cover, precipitation(frequency, intensity)

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1-2 natural features correctly identified	natural feature incorrectly identified	Not Attempted

1.4

Characteristics of **ONE** element of the interacting natural processes that operate in your chosen geographic environment. Support your explanation with case study evidence.

Elements of the Interacting natural processes	Characteristics
Tectonic/volcanism	
Structure of the earth	Different materials, composition, density
tectonic plates	Different materials, composition, density
plate boundaries	Convergent, divergent, passive
tectonic hazards	Intensity
Geomorphic	
Folding	Anticline, syncline, geosyncline
Faulting	Fault line, scarp, ridge
Volcanism	Viscosity, intensity, nature of eruption, create spectacular landforms

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1.6	<p>Define <b>temporal variations</b> Temporal variation refers to <b>change with time/how things change over time</b></p>																	
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1.7	<p>Define <b>local spatial variations</b> <b>Local spatial variations</b> refers to the way in which processes are different within different parts of the geographic environment, e.g. stronger, going in different directions, more magnitude, different speeds or rates, different geology, different slope, different patterns.</p>																	
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Explain how human actions have modified or could modify **ONE** natural process operating in your chosen geographic environment.

<b>ONE natural process</b>	<b>Human action</b>
Coastal	<p><b>Dredging</b> - may interfere with sediment transport and flow dynamics in coastal and marine systems.</p> <p><b>Land reclamation</b> – removal of coastal vegetation makes the coast vulnerable to coastal erosion/inundation, cause salinisation</p> <p><b>Beach scraping</b>-is the process of reshaping beach and dune landforms with heavy machinery can create dunes, which are used to give property owners some security from beach erosion, severe storms, and winter wash over events. During the summers, the created sandbanks may be bulldozed flat, providing water views to property owners. However, the effects of beach scraping on coastal environments are little known, and this procedure may be harmful to coastal biota and habitats.</p>
Climate	Human activities (students may give specific examples – burning of fossil fuels, air pollution....may contribute to acid rain, climate change
Pedology	<p><b>Deforestation</b> – removal of vegetation makes soil vulnerable to erosion, leaching</p> <p><b>Overgrazing</b> - makes soil vulnerable to erosion, leaching</p> <p><b>Industrialisation</b> – extractive industry – lead to land scarification, land pollution from mine tailings</p> <p><b>Careless disposal of (toxic) waste</b></p>
Biogeography	<p><b>Deforestation</b>/indiscriminate logging, <b>land reclamation</b> – disturbs the ecological balance/food chain, destroys the natural habitat of organisms</p> <p><b>Introduced species</b> - This can negatively affect an ecosystem because the introduced species may out-compete native organisms and displace them.</p> <p><b>Pollution</b>: Pollution can occur from the runoff or disposal of chemical substances, or from energy sources (noise and light pollution).</p> <p><b>Land-use change</b>: Humans may destroy natural landscapes as they mine resources and urbanize areas. This is detrimental, as it displaces residing species, reducing available habitats and food sources.</p>

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<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>NR</b>
Clearly explains how a human action has modified or could modify the geographical environment, links these	Provides two or more human actions that have modified or could modify the chosen geographical environment	Focusses on one aspect only – either on the human action or on the outcome of the human action	provides an inaccurate/unclear explanation of the cause (human action) and effect (how the natural process has been	No explanation

	<p>correctly to its impact on the chosen geographic environment, thus the ideas are connected. Presents a sustained, logical and cohesive answer using appropriate geographical information, ideas and issues</p>	<p>The link between the human actions and the modifications are not clear</p>		<p>modified)</p>												
<p>1.9</p>	<p>Explain comprehensively how the interacting natural processes operating in your Pacific geographic environment have affected the distribution of phenomena</p> <p>Climate and pedology (soil) have influenced the distribution of biome For example tropical climate and soil have contributed to tropical rainforest vegetation over a period of time. The vegetation may have adaptive features to enable it to thrive in the physical environment. For example plants in dry regions may have long roots to be able to reach groundwater.</p> <p>Tectonic and volcanism – tectonic plates move very slowly over a long period of time, subduction of plates occur, causing friction thus triggering tectonic hazards. Intrusive and extrusive landforms can be created from volcanic eruption.</p> <p>Coastal and hydrology have created both erosional and depositional landforms (students can describe 1 landform)</p>					<table border="1"> <tr><td>3</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	3		2		1		0		NR	
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	<p>modified</p> <p>Students must mention how the processes have led to formation/ Modification of features or how the transportation/ deposition of materials have created/modifi ed features</p>						
<p>1.10</p>	<p>Discuss the interactions in the natural processes operating in your chosen geographic environment. Use specific case studies and diagrams.</p>						
<p><b>Natural process</b></p>		<p><b>Interactions</b></p>				<p>4</p>	
<p>Coastal</p>	<p>- <b>Destructive waves</b> – crash onto the beach and ‘destroy’ the beach</p> <p>- Weathering – freeze-thaw weathering or frost shattering. After repeated cycles of freeze-thaw process, fragments of rock may become detached and fall to the foot of the slope and collect as scree</p> <p><i>Erosion—the wearing away of rock, soil, and other biotic and abiotic earth materials—occurs in coastal areas as wind, waves, and currents in rivers and the ocean move sediments.</i> Five main <b>processes</b> which cause <b>coastal</b> erosion. These are corrasion (this involves fragments of rocks being picked up and hurled by the sea at a cliff. The rocks scrape and gouge the rock), abrasion (the ‘sandpapering’ effect of pebbles grinding over a rocky platform, causing it to become smooth), hydraulic action (involves the sheer power of waves as they smash onto a cliff, causing the rock to break apart), attrition (the rock fragments carried by the sea knock against one another, causing them to become smaller and more rounded) and corrosion/solution (some rocks are vulnerable to being dissolved by sea water).</p> <p>Transportation – solution, suspension, traction, saltation</p>				<p>3</p>		
<p></p>					<p>2</p>		
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<p>Fluvial</p>	<p>Processes of erosion – hydraulic action, abrasion, attrition &amp; solution, create waterfalls &amp; gorges</p> <p>Processes of transportation- traction, saltation, suspension &amp; solution</p> <p>Processes of deposition – the river dumps/leaves material that it has been carrying, the large materials are deposited first and the smaller the load the further it can be transported, create levees &amp; floodplains</p> <p>Flooding – intensity and duration of precipitation</p>						
<p>Tectonic</p>	<p>Movement of oceanic and continental plates can cause tectonic hazards, landforms are created at different plate boundaries</p>						
<p>Volcanic</p>	<p>Movement of tectonic plates can be convergence, divergence,</p>						

		passive	
	Geomorphic	<p>Land forming processes-denudation, deposition, diastrophism, volcanism, earthquake</p> <p>Endogenous (processes that are caused from forces within the earth, cause sudden &amp; rapid movements)&amp; exogenous processes (processes come from forces on or above the surface of the earth, cause slow movements)</p> <p>Agents of change are water, wind, glacier and waves.</p> <p>Weathering, erosion &amp; degradation can modify landscapes</p>	
	Climate	<p>Incoming solar radiation, characteristics of the earth's surface, the atmosphere's ability to retain heat, and the reflectivity of the atmosphere and the earth's surface. Various mechanisms serve to enhance or weaken the effects of these processes on climate. The energy that radiates from the sun creates the basis for weather and climate on earth. The radiation absorbed makes the earth warmer. Unless an equal amount of energy is lost to outer space, the temperature on earth would increase. Earth loses energy to space by radiating infrared light from the surface and the atmosphere. Averaged over the entire globe, the earth loses the same amount of energy in the form of infrared radiation as it takes up from the sun.</p> <p>Climate can change as a result of natural processes or human activities. The most important process behind the ongoing climate change is an increased concentration of CO<sub>2</sub> and other greenhouse gases in the atmosphere, which enhance the greenhouse effect. Evidence shows that the concentration of CO<sub>2</sub> in the atmosphere has increased by about 40% since the beginning of the industrial revolution. There are clear indications that human activities have caused this increase. The current atmospheric concentration of CO<sub>2</sub> is far higher than any level attained through natural variation over the past 800 000 years, as demonstrated by ice cores, and it is quite certain that the increase in atmospheric CO<sub>2</sub> levels seen in the last 100 years has been more rapid than any other increase over the last 22 000 years</p>	
	Hydrology	Evapotranspiration – transpiration & interception, infiltration	
	Biogeography	Invasion, Succession, Resilience	

4	3	2	1	0	NR
<p>Detailed discussion of the interactions operating in the natural process supported by case study evidence</p> <p>The level 4 extension is evident in the student's use of relevant examples from case studies which may include diagrams</p>	<p>Two or more appropriate ideas about the processes taking place in the natural process leading to changes, supported by case study</p>	<p>Two or more relevant ideas are provided, and linking of processes to effects is not evident.</p>	<p>One appropriate idea on any of the processes is provided.</p>	<p>No relevant idea is provided</p>	<p>Not attempted</p>

**SECTION B: CULTURAL PROCESSES**

*Demonstrate an understanding of a cultural process operating within geographic environments at the local, national or global level.*

During your Form Seven Certificate course, you studied a cultural process using illustrative examples from two settings: one from a Pacific Island nation, the other from the rest of the world.

In the frames below, name the cultural process that you have studied.

Cultural Process Studied

Name of the Pacific Island Nation Setting

Name of the rest of the world (overseas) setting such as New Zealand, Australia.

<p>2.1a</p>	<p>Locate and name your Pacific Island nation setting by shading it. <b>Oceania</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%; text-align: center;">1</th> <th style="width: 33%; text-align: center;">0</th> <th style="width: 33%; text-align: center;">NR</th> </tr> </thead> <tbody> <tr> <td>Correct location and name of Pacific Island nation</td> <td>Incorrect location but correct name of Pacific Island nation <b>OR</b> correct name of Pacific Island nation but Incorrect location</td> <td>Pacific Island nation not located, not named</td> </tr> </tbody> </table>	1	0	NR	Correct location and name of Pacific Island nation	Incorrect location but correct name of Pacific Island nation <b>OR</b> correct name of Pacific Island nation but Incorrect location	Pacific Island nation not located, not named	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;">1</td><td style="width: 30px;"></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	1		0		NR	
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<p>2.1b</p>	<p>Locate and name your overseas setting by shading it. <b>World map</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%; text-align: center;">1</th> <th style="width: 33%; text-align: center;">0</th> <th style="width: 33%; text-align: center;">NR</th> </tr> </thead> <tbody> <tr> <td>Correct location and name of overseas nation</td> <td>Incorrect location but correct name of overseas nation <b>OR</b> correct name of overseas nation but Incorrect location</td> <td>Overseas nation not located, not named</td> </tr> </tbody> </table>	1	0	NR	Correct location and name of overseas nation	Incorrect location but correct name of overseas nation <b>OR</b> correct name of overseas nation but Incorrect location	Overseas nation not located, not named	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;">1</td><td style="width: 30px;"></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	1		0		NR	
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NR														
<p>2.2a</p>	<p>Draw a sketch map to show how the TWO elements of the cultural process operate in your chosen Pacific Island nation. Add a title, key and approximate scale to your map.</p> <p>Sketch Map</p> <div style="border: 2px solid black; padding: 5px; margin-bottom: 10px;"> <p>Sketch map showing the interaction of two elements of _____</p> </div> <div style="border: 2px solid black; padding: 5px;"> <p>map clearly shows the TWO elements of the interacting natural processes = 2</p> <p>map shows ONE element of the interacting natural processes = 1</p> <p>map DOES NOT show the elements of the interacting natural processes = 0</p> <p>no sketch map drawn = NR</p> </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;">2</td><td style="width: 30px;"></td></tr> <tr><td style="text-align: center;">1</td><td></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	2		1		0		NR					
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<p>2.2b</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>KEY</b></p> <p>Symbols and colours used complement those used in the sketch = 1</p> <p>Symbols and colours used do not complement those used in the sketch = 0</p> </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;">1</td><td style="width: 30px;"></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">NR</td><td></td></tr> </table>	1		0		NR							
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2.3a	<p>Identify <b>TWO</b> specific elements of the cultural processes in your overseas setting.</p> <table border="1"> <thead> <tr> <th>Cultural Process</th> <th>Elements</th> </tr> </thead> <tbody> <tr> <td>Migration</td> <td>Internal &amp; external, push &amp; pull factors, voluntary or forced migration</td> </tr> <tr> <td>Tourism</td> <td>Accommodation, Accessibility, Activities, Amenities, Attractions Natural – land based (mountains, caves, forests), water-based (coral reefs, rivers, lakes, oceans, kayaking, sailing, green tourism) Cultural/human – material &amp; non-material culture, research, marketing, travel agent Economic – employment, income, multiplier effect, leakage factor</td> </tr> <tr> <td>Industrialisation</td> <td>Technological innovation/Technology, robotics, population movement</td> </tr> <tr> <td>Agricultural change</td> <td>Mechanisation, intensification, diversification, HYV</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>TWO elements of the Cultural Processes correctly named</td> <td>element of the Cultural Processes incorrectly named</td> <td>Not attempted</td> </tr> </tbody> </table>	Cultural Process	Elements	Migration	Internal & external, push & pull factors, voluntary or forced migration	Tourism	Accommodation, Accessibility, Activities, Amenities, Attractions Natural – land based (mountains, caves, forests), water-based (coral reefs, rivers, lakes, oceans, kayaking, sailing, green tourism) Cultural/human – material & non-material culture, research, marketing, travel agent Economic – employment, income, multiplier effect, leakage factor	Industrialisation	Technological innovation/Technology, robotics, population movement	Agricultural change	Mechanisation, intensification, diversification, HYV	1	0	NR	TWO elements of the Cultural Processes correctly named	element of the Cultural Processes incorrectly named	Not attempted	<table border="1"> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	1		0		NR	
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NR																								
2.3b	<p>Describe the temporal variations of <b>ONE</b> cultural process operating in your chosen overseas setting.</p> <table border="1"> <thead> <tr> <th>Cultural process</th> <th>Temporal variations</th> </tr> </thead> <tbody> <tr> <td>Migration</td> <td>Availability of money, endorsement of travel documents</td> </tr> <tr> <td>Tourism</td> <td>Fluctuations in transport costs/tourist arrivals/economic recession, competition from other destinations/natural hazards</td> </tr> <tr> <td>Industrialisation</td> <td>Level of development, availability of money, expertise/action(Stikes),economic recession</td> </tr> <tr> <td>Agricultural change</td> <td>Availability of money, farmer's reception/willingness/readiness to change, farmer's knowledge &amp; skills to adopt change(s), economic recession, natural hazards</td> </tr> </tbody> </table>	Cultural process	Temporal variations	Migration	Availability of money, endorsement of travel documents	Tourism	Fluctuations in transport costs/tourist arrivals/economic recession, competition from other destinations/natural hazards	Industrialisation	Level of development, availability of money, expertise/action(Stikes),economic recession	Agricultural change	Availability of money, farmer's reception/willingness/readiness to change, farmer's knowledge & skills to adopt change(s), economic recession, natural hazards	<table border="1"> <tr> <td>2</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	2		1		0		NR					
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<b>2</b>	<b>1</b>	<b>0</b>	<b>NR</b>
Detailed explanations of the temporal variations in the overseas nation, ideas are connected. Must explain the effect(s) of the temporal variations on the cultural process	Mentions the temporal variation but Fails to link it with the cultural process <b>OR</b> Describes in detail <b>either</b> the temporal variation <b>or</b> the cultural process	No mention of temporal variation of cultural process  Explanation is unclear and unrelated to the temporal variation chosen	Not attempted
2.4	Explain how your chosen cultural process operates for your chosen overseas setting. You can explain the sequence of events that happen, the rate and scale at which the cultural process happens. Use specific case study evidence.		
<b>Cultural process</b>	<b>How it operates</b>		
Migration	People migrate because of push & pull factors. Migration can either be voluntary or forced. Several factors determine whether one can migrate or not – availability of money, endorsement of travel documents to name a few. The effects (positive & negative) of migration can be seen in both the host & receiving countries/regions.		
Tourism	People have different motivations to travel, have different choices for their destinations which will be influenced by other factors such as the amount of money available to meet their travel needs, their state of health, stability (political & economic) of their destination. There is need for research to gauge present trends and future prospects. The tourism industry has multiplier effects and a high leakage factor – students to elaborate		
Industrialisation	The level of industrialisation depends on several factors – finance available to purchase items required, technical expertise to develop items. As more industries introduce robotics, people may have to quit their jobs thus causing social problems		
Agricultural change	Government to play a pivotal role in endorsing policies,		

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securing markets to support change in this sector. Adopted by farmers through the assistance (financial/technical) of governments, with the availability of money farmers can buy machines or to hire labourers to make work easier

3	2	1	0	NR
Detailed explanation of how cultural process operates, there is mention of sequence of events, rate & scale at which the cultural process occurs, supported by case study evidence	Explains how cultural process operates but fails to mention sequence of events, rate & scale of change, there is mention of case study = 2 Listing of how cultural process operates, there is mention of case study	Vague/weak explanation, no mention of case study <b>OR</b> Explains case study but does not mention how cultural process operates	Incorrect explanation for the chosen cultural process, no mention of case study	Not attempted

2.5

List **three** factors that can bring about change in the cultural process for your chosen Pacific Island nation. Support your explanation with case study evidence.

**Tourism**

Environmental factors: Good climate, Beautiful scenery, etc.

Socio-economic factors: Accessibility, Accommodation, Amenities, Ancillary services, etc.

Historical and cultural factors,

Religious factor/Political factor

2	1	0	NR
Correctly named 3 factors that can bring about changes in the cultural process	Correctly named 2 factors that can bring about changes in the cultural process	Irrelevant/incorrect factor mentioned	Not attempted

2.6

Explain why there are local spatial variations in the cultural process for your chosen Pacific Island nation. Support your explanation with case study evidence.

- Accessibility
- Different physical attractions
- Different levels of income/finance available to spend
- Different levels of development – emerging digital technologies
- Different individual preferences
- Different needs/wants

<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>NR</b>
Detailed explanation of why local temporal variations exist in the cultural process chosen, supported with case study	Identifies reasons for local variations but fails to give a detailed explanation (briefly explains), there is mention of case study  <b>OR</b> Listing of how cultural process operates, fails to explain why there are local spatial variations, there is mention of case study	Vague/weak explanation, of 1 reason why local spatial variation exists, there is no mention of case study  <b>OR</b> Explains case study but does not explain the reasons for local spatial variations	Incorrect explanation for the reasons for local spatial variations, no mention of case study	Not attempted

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2.7	<p>Evaluate the factors that have brought about changes to your cultural process in both your Pacific Island nation and your overseas settings. Use case study evidence</p> <p>There are several factors that have brought about changes to both Pacific Island nation and the overseas nation but the most significant factor would be globalisation. Both these settings have to make changes because they are both part of the global market. In spite of this, both settings have to comply with the standards/requirements set out by their counterparts.</p> <p>Since both settings are at different levels of development, they will handle things or respond to things differently – availability of money and technical expertise.</p> <p>The extent of government involvement in the cultural process is important, as it dictates both the present trends of development and the future prospects.</p> <table border="1"> <thead> <tr> <th>4</th> <th>3</th> <th>2</th> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Detailed evaluation of the factors that have brought about changes – must mention the factor(s) and to what extent this factor(s) have brought about changes to both settings, ideas to be linked, aspect of change /recommen dation given supported by case study evidence</td> <td>Factors responsible for change identified but how they have brought about changes in both settings are not explained or only one explained, supported by case study evidence</td> <td>Explanation of factors for change only, there is mention of case study</td> <td>Listing of factors for change, no explanation, no case study evidence</td> <td>Irrelevant/in correct evaluation of factors, no case study evidence</td> <td>Not attempted</td> </tr> </tbody> </table>	4	3	2	1	0	NR	Detailed evaluation of the factors that have brought about changes – must mention the factor(s) and to what extent this factor(s) have brought about changes to both settings, ideas to be linked, aspect of change /recommen dation given supported by case study evidence	Factors responsible for change identified but how they have brought about changes in both settings are not explained or only one explained, supported by case study evidence	Explanation of factors for change only, there is mention of case study	Listing of factors for change, no explanation, no case study evidence	Irrelevant/in correct evaluation of factors, no case study evidence	Not attempted	<table border="1"> <tr><td>4</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	4		3		2		1		0		NR	
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## SECTION C: GEOGRAPHIC SKILLS AND IDEAS

Complete all tasks in this section. These tasks are based on the information provided in the separate Resource Booklet (No.106/2) to test your ability to apply geographical skills, concepts and ideas.

### Task 1: Application of geographic concepts and ideas: Introduction

Study the map of New Zealand, Resource 1, the satellite image of Lake Taupo, Resource 2, and the topographic map of Waikato, Resource 3. Use the Resources to answer questions 3.1a, 3.1b and 3.1c.

3.1a	<p>With reference to Resource 1 on page 2, state the location of the geothermal areas.</p> <ul style="list-style-type: none"> <li>• Volcanic areas</li> <li>• Plate margin areas</li> <li>• Underground hot spot areas</li> </ul> <table border="1"> <thead> <tr> <th style="text-align: center;">1</th> <th style="text-align: center;">0</th> <th style="text-align: center;">NR</th> </tr> </thead> <tbody> <tr> <td>Accept <b>one</b> of the responses from the list above</td> <td>Incorrect response</td> <td>Not attempted</td> </tr> </tbody> </table>	1	0	NR	Accept <b>one</b> of the responses from the list above	Incorrect response	Not attempted	<table border="1"> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	1		0		NR	
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Accept <b>one</b> of the responses from the list above	Incorrect response	Not attempted												
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3.1b	<p>Name TWO geothermal sites in present use in Resource 1, page 2.</p> <ul style="list-style-type: none"> <li>• Broadlands</li> <li>• Wairakei</li> <li>• Tauhara</li> </ul> <table border="1"> <thead> <tr> <th style="text-align: center;">1</th> <th style="text-align: center;">0</th> <th style="text-align: center;">NR</th> </tr> </thead> <tbody> <tr> <td>Named 2 correct sites</td> <td>Irrelevant/in correct site named</td> <td>Not attempted</td> </tr> </tbody> </table>	1	0	NR	Named 2 correct sites	Irrelevant/in correct site named	Not attempted	<table border="1"> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	1		0		NR	
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Named 2 correct sites	Irrelevant/in correct site named	Not attempted												
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3.1c	<p>With reference to Resource 2 on page 2 to identify the location of the settlements.</p>													

	<ul style="list-style-type: none"> <li>Along the coasts and on the shores of the lake</li> <li>Along the road</li> </ul>			<table border="1"> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	1		0		NR	
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<b>1</b>	<b>0</b>	<b>NR</b>								
Correctly identified the location of settlements using one of the above locations	Irrelevant/incorrect location of the settlements	Not attempted								

## Task 2: Interpretation of a topographic map.

Study Resource 3, which is the topographic map of Waikato, to answer questions 3.2a- 3.2d.

3.2a	Name the cultural feature located at the six Grid Reference site given below.			<table border="1"> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	1		0		NR	
	1									
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<b>Grid Reference</b>	<b>Cultural Feature</b>									
778269	Domestic airport									
<b>1</b>	<b>0</b>	<b>NR</b>								
Correctly named feature	Incorrect feature named	Not attempted								
3.2b	In what direction is Broadlands (801294) from Taupo.			<table border="1"> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	1		0		NR	
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North east/NE										
<b>1</b>	<b>0</b>	<b>NR</b>								
Correctly direction given	Incorrect direction given	Not attempted								
3.2c	Calculate the area of Waikato			<table border="1"> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	1		0		NR	
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$A = l \times w$  Scale: 1 centimetre on the map is equal to 2.5 kilometres on the ground										
$A = 21.3 \times 16.3 = 347.19\text{km} \times 2.5 = 867.9\text{km}$										

<b>1</b>	<b>0</b>	<b>NR</b>
area correctly given  correct answer but no metric unit  Correct calculation but wrong answer	Incorrect area given	Not attempted
3.2d What is the highest point in Waikato in metres?		
1714m		
<b>1</b>	<b>0</b>	<b>NR</b>
Correct elevation given (with/without the metric unit)	Incorrect elevation given	Not attempted

1	
0	
NR	

### Task 3: Map Reading and Sketching

Study Resource 3 on pages 2 and 3, which is the topographic map of Waikato. Use the map to help you answer the question that follows.

3.3a	<p>Draw the précis sketch of Waikato in the frame provided and include in your drawing the following features:</p> <p>(i) Waikato River</p> <p>(ii) a built up area</p> <p>(iii) an area of exotic trees</p> <p>(iv) main electric power line</p> <div style="border: 1px solid black; height: 200px; width: 100%;"></div> <p>The sketch is realistic with the 4 required features shown and labelled in Resource 2 &amp; 3 = 2</p> <p>Sketch contains 2 – 3 required features = 1</p> <p>Sketch is unrealistic and contains only ONE of the required features = 0</p> <p>Sketch not drawn = NR</p>	<table border="1"> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	2		1		0		NR	
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### Task 4: Interpretation of Climograph

Use Resource 4, the climograph of Waikato, on page 5 to answer question 3.4a - 3.4c.

3.4a	<p>Interpret the climograph and state the driest month      April</p> <table border="1"> <thead> <tr> <th>2</th> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Correct month</td> <td>incorrect month</td> <td>incorrect month</td> <td>Not attempted</td> </tr> </tbody> </table>	2	1	0	NR	Correct month	incorrect month	incorrect month	Not attempted	<table border="1"> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	2		1		0		NR					
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Correct month	incorrect month	incorrect month	Not attempted																			
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3.4b	<p>What generalisation can be made regarding the temperature pattern in Waikato?</p> <p>Generally warmer in the first 4 months of the year, then it gets cold for the next 3-4 months, and then it becomes cold again towards the end of the year.</p> <table border="1"> <thead> <tr> <th>2</th> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Detailed explanation of the pattern – mention cold and warm months</td> <td>Just mentions that the temperature pattern fluctuates no mention of months</td> <td>Does not mention the temperature pattern – might mention the pattern goes up and down</td> <td>Not attempted</td> </tr> </tbody> </table>	2	1	0	NR	Detailed explanation of the pattern – mention cold and warm months	Just mentions that the temperature pattern fluctuates no mention of months	Does not mention the temperature pattern – might mention the pattern goes up and down	Not attempted	<table border="1"> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	2		1		0		NR					
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0																						
NR																						
3.4c	<p>Calculate the average rainfall for Waikato</p> $85 + 75 + 83 + 73 + 87 + 98 + 104 + 110 + 90 + 102$ $+ 85 + 108$ $= 1100/12 = 91.7\text{mm} \qquad \text{Mean Rainfall} = 91.7\text{mm}$ <p><b>Accept answers between 91 and 92</b></p> <table border="1"> <thead> <tr> <th>3</th> <th>2</th> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Correct answer with working</td> <td>Correct answer, no working</td> <td>Correct working, wrong answer</td> <td>Incorrect answer, no working</td> <td>Not attempted</td> </tr> </tbody> </table>	3	2	1	0	NR	Correct answer with working	Correct answer, no working	Correct working, wrong answer	Incorrect answer, no working	Not attempted	<table border="1"> <tr><td>3</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	3		2		1		0		NR	
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Correct answer with working	Correct answer, no working	Correct working, wrong answer	Incorrect answer, no working	Not attempted																		
3																						
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**Task 5: Cartoon Interpretation**

Use Resource 5 on page 4 to help you answer question C5.

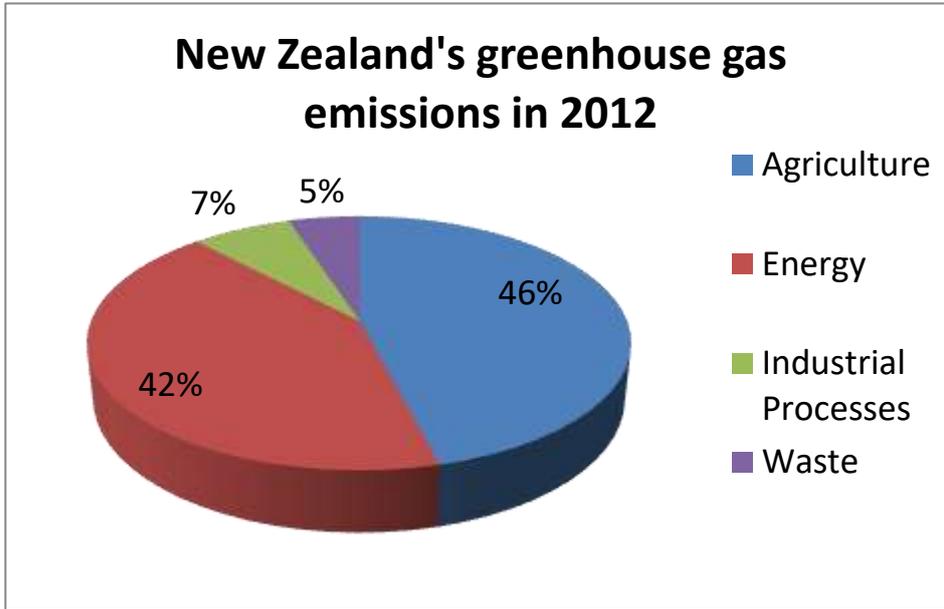
3.5a	<p>Describe the comment the artist is making about people’s attitude to the environment.</p> <p>Total degradation caused by both logging and mining; total abuse of the environment</p> <table border="1"> <thead> <tr> <th>2</th> <th>1</th> <th>0</th> <th>NR</th> </tr> </thead> <tbody> <tr> <td>Response includes the devastation caused by both logging and mining and the abuse of the environment</td> <td>Response includes the devastation caused by logging but fails to mention abuse of the environment caused by mining</td> <td>Humans are simply cutting down trees</td> <td>Not attempted</td> </tr> </tbody> </table>	2	1	0	NR	Response includes the devastation caused by both logging and mining and the abuse of the environment	Response includes the devastation caused by logging but fails to mention abuse of the environment caused by mining	Humans are simply cutting down trees	Not attempted	<table border="1"> <tr> <td>2</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	2		1		0		NR	
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Response includes the devastation caused by both logging and mining and the abuse of the environment	Response includes the devastation caused by logging but fails to mention abuse of the environment caused by mining	Humans are simply cutting down trees	Not attempted															
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**Task 6: Calculations and Graph Construction**

Use Resource 6 on page 6 to help you answer question 3.6a – 3.6b.

3.6a Construct a **pie graph** to show New Zealand's greenhouse gas emission in 2012

Title: Pie graph showing New Zealand's greenhouse gas emission in 2012



2	
1	
0	
NR	

2	1	0	NR
Correct proportions for 3-4 items	Correct proportions for 1-2 items	Incorrect proportions for the 4 items	Not attempted

3.6b

KEY	
Symbols and colours used complement those used in portions	= 1
Symbols and colours used do not complement those used in portions	= 0

1	
0	
NR	

## Task 7: Excerpt Interpretation

Use Resource 7 which explains the impacts of climate change on Waikato, and Resource 8 on strategies to lessen the effects of climate change, to help you answer 3.7a – 3.7b.

3.7a	<p>From the information in Resource 7, explain in detail the economic implications of climate change on Waikato.</p> <p>Climate change is as much an economic problem as an environmental one.</p> <ul style="list-style-type: none"> <li>• Climate change can affect market sectors like agriculture, forestry, and coastal property as well as intangible goods such as biodiversity, environmental quality and human health. In terms of the economy, this is probably going to affect farming the most. Places where we used to grow crops may become too arid or too wet for what currently grows there. The location of where humans grow things will change. Places closer to the poles which have been too cold to have decent growing seasons will become more arable. Places that used to be the right temperature for a crop will become too hot.</li> <li>• Administration may have to spend more money to adopt mitigation and adaptation strategies             <ul style="list-style-type: none"> <li>• Shorelines - As the ocean levels rise, the existing shorelines will change. In terms of economic impact, people are probably going to have to migrate. This will mean a lot of new home construction. It may also mean deconstruction, as well, depending on how humans feel about letting the oceans destroy things, or about cleaning up after ourselves. Cities on the shore will have to invest heavily in dikes and other water management systems,</li> <li>• Technology - Global warming may create a demand for new technology that helps capture carbon dioxide and methane</li> </ul> </li> <li>• Climate change could deplete stocks of social, environmental, institutional and economic capital through extreme events such as tropical cyclones or increased risk of civil conflict, therefore, the administration will be forced to look for alternative items for export</li> <li>• Climate change could also directly affect total factor productivity by changing the environment in which technologies were designed to operate and diverting resources away from R&amp;D toward efforts to deal with climate impacts.</li> <li>• As the country experiences more extremely hot days, food prices will increase.</li> </ul>	<table border="1"> <tr><td>4</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>0</td><td></td></tr> <tr><td>NR</td><td></td></tr> </table>	4		3		2		1		0		NR	
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- Worker productivity declines sharply, particularly for outdoor jobs. That further increases the cost of food.

4	3	2	1	0	NR
Detailed explanation of the economic implications of climate change – student must identify and explain	Discusses climate change but not its economic implication	Vaguely discusses the economic implications of climate change	Listing of economic implications of climate change, no explanation	Response includes socio-cultural or physical implications of climate change	Not attempted

3.7 b

Choose **any two** strategies listed in Resource 8, and evaluate their effectiveness in reducing the negative impacts of global warming in Lake Taupo. In your answer, include the practicality of the strategies chosen and where possible make suggestions.

4	3	2	1	0	NR
Explains the practicality of the two strategies in reducing global warming, recommends further action to reduce the negative impacts of global warming	Explains the effectiveness of two strategies	Explains the effectiveness of one strategy, not detailed	Lists the effectiveness of one strategy	Incorrect responses	Not response given