

No part of the candidate's evidence in this exemplar material may be presented in an external assessment for the purpose of gaining an NZQA qualification or award.

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91934



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 1 Geography 2025

91934 Demonstrate understanding of how natural processes shape an environment

Credits: Five

SAMPLE ASSESSMENT

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how natural processes shape an environment.	Explain how natural processes shape an environment.	Examine how natural processes shape an environment.

EXCELLENCE EXEMPLAR

This sample includes an example of one resource from a multi-resource assessment. In the final assessment, Section One will include three different environments and their corresponding resources, from which ONE will be chosen to answer the question parts.

INSTRUCTIONS

There are two sections in this assessment.

Section One

Choose ONE resource from the three provided, and answer the corresponding question parts.

Use *EITHER*

- Resource A (pages 4–5) *OR*
- Resource B (not shown in this example) *OR*
- Resource C (not shown in this example).

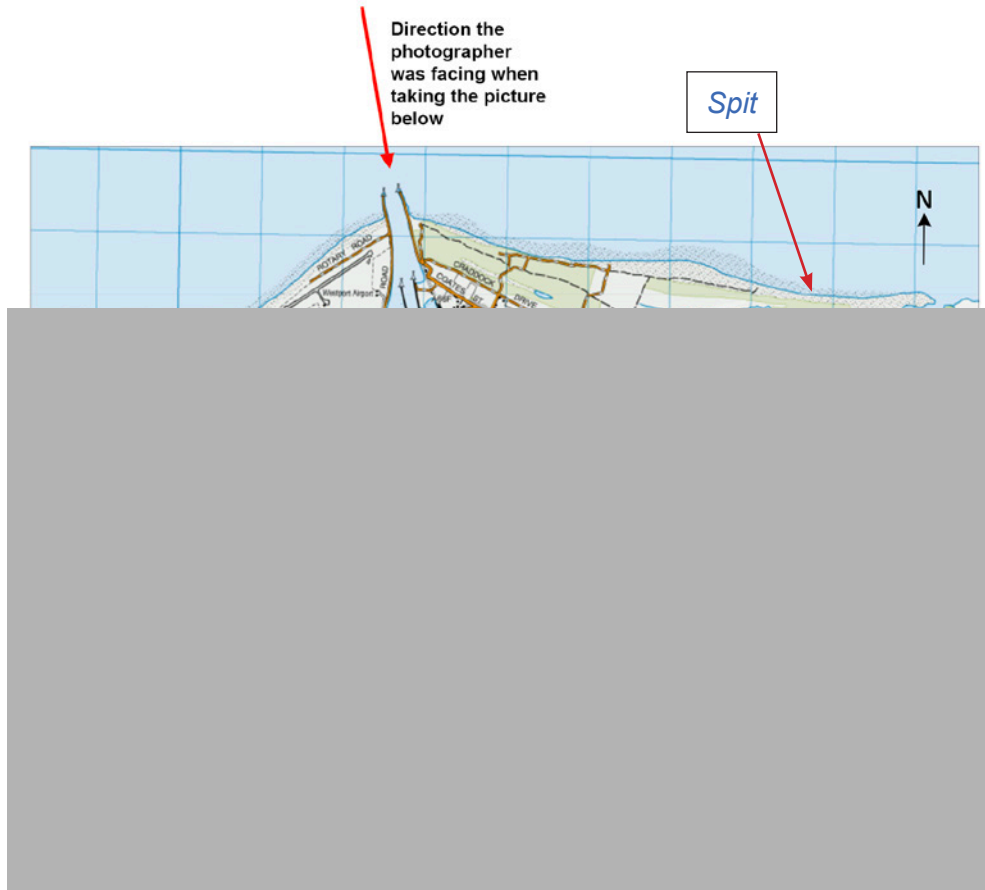
Section Two

Answer both parts of this section (pages 6–7).

SECTION ONE

Choose ONE resource (A, B, or C) and use it to answer the corresponding question parts.

EITHER: RESOURCE A



Answer here if you are choosing to use **Resource A**.

- (i) Name TWO processes that would have operated to shape the environment shown in Resource A.

Process 1: Longshore drift

Process 2: Fluvial

- (ii) Label the topographic map and/or photograph in Resource A to show a range of features that have been shaped by the processes you named in part (i).
- (iii) Explain how two of the features you labelled in part (ii) were formed by the processes you named in part (i). In your answer, include case study evidence and geographic terminology.

Feature 1: _____

I have labelled the spit on the map provided. This has been caused by Longshore drift. The prevailing wind causes waves to approach a beach at an angle. When the waves hit the beach, they move up the beach at the same angle and move the sand and shingle up the beach. This part of the wave is called swash. Backwash occurs when the wave recedes back down the slope of the beach. The direction of this is perpendicular to the beach and at this time sand and shingle is carried back out to sea. This process repeats itself, and over time the zigzag motion of longshore drift moves the sediment along the shore. When the drift of sediment comes into contact with a river mouth, it continues across the channel almost blocking the outlet of the river into the sea. A spit has now been formed.

Feature 2: _____

The floodplain I labelled on the photograph provided will have been formed by the fluvial process of deposition. During times of flooding, the river can contain large amounts of sediment that has been eroded further upstream and transported down to flat land. Floods occur when the amount of water in the river is so large that it overflows the riverbanks and begins to spread outwards. When this happens the flood water begins to slow down and lose its energy. It is here that sediment carried by the river is dropped out of the current. The heaviest sediment will be deposited first while the finer particles will be dropped further away. This sediment builds up over many flood events to form a large flat floodplain such as the one in the photograph.

SECTION TWO

Use a case study environment you have studied this year to answer BOTH parts of Section Two. Name the case study below.

Case study environment: The Kaituna River Catchment

- (iv) Explain the influence that the phenomena of your case study environment have had on the location of TWO types of cultural features.

Cultural features can include but are not limited to:

- Transport routes (roads, railways, ports, etc.)
- Buildings (houses, shops, marae, etc.)
- Land use (agriculture, industry, residential, etc.)
- Infrastructure (power, water, sewerage, etc.)

In your answer, include case study evidence and geographic terminology.

In the Kaituna River Catchment land use has been affected by phenomena. The Tutea Falls are a phenomenon in the Kaituna fluvial environment which have influenced the location of a number of whitewater rafting businesses. Kaituan Cascades, Kaituna Rafting and Rotorua Rafting have all been influenced by the Tutea Falls which were shaped by the water from the Kaituna River carving through the volcanic rock which is found in the area. This erosion, created by the fluvial process has led to the creation of the 7m Tutea Falls, which are the world's highest waterfall where whitewater rafting businesses operate. Without the location of these falls in the environment, the whitewater rafting businesses would not be nearly as successful because these businesses need the water and the drop to operate. Land has been changed by mmm for the businesses to operate in the environment. Kaituna rafting is a popular tourist attraction and is also popular with locals. This brings people together and promotes health and well-being due to the social aspect as well as the physical aspect. It also contributes to the economic aspect as a number of locals are employed as guides, support staff and administration.

The Maketū estuary is another phenomenon which has been created in this coastal and fluvial environment. Over time the build-up of sediments deposited by the Kaituna River as part of the fluvial process helped create the estuary. The interaction between the river and the ocean tides were part of the coastal process which also helped shape the Maketū estuary. The Maketū estuary then produced a coastal wetland, which has been culturally important for people and for the Te Arawa iwi for over a thousand years. For many years, the land has been used because it is a place with lots of food – birds, fish and shellfish.

The town of Maketū developed in the 1800s because of the estuary, which provided food sources and fresh water. Today, there are two marae, Whakaue or Tapiti Marae and Te Awhe o te Rangi Marae and the population is still mainly Māori. In 2018, the census showed that 67% of people living in Maketū identify as Māori. Most people in Maketū are from the area and probably have ties to the marae – only 9.8% of the Maketū population were born overseas, compared to 27.1% nationally.

The waterways in the rohe are taonga to the local iwi and are a traditional source of food and water. The iwi are constantly trying to get the river protected and were actively involved in the river project to redirect the course of the Kaituna River back to the Maketū Estuary.

- In your answer, include case study evidence and geographic terminology. You may include map(s) and/or diagram(s) to support your answer.

Longshore drift could also increase the likelihood of flooding at Maketu. As the drift is moving in an easterly direction, it could fully block the Kaituna River Mouth by forming a bar, especially during storms when there are high seas. If this were to happen, water being carried down the river may be blocked from entering the sea. The bar would then act as a dam, stopping the floodwater so that it starts to build up. This could result in increased flooding as the water would have nowhere to go except to spread out across the floodplain. This flooding could follow the Tauranga Eastern Link and reach the settlement of Papamoa and the new housing near the Golden Sands Baptist Church.

Extra space if required.
Write the question number(s) if applicable.

QUESTION
NUMBER

91934

Acknowledgements

Material from the following sources has been adapted for use in this assessment:

Resource A

Map: <https://www.topomap.co.nz/NZTopoMap?v=2&ll=-41.7756,171.612282&z=13>

Image: <https://www.soundsair.com/uploads/images/regional/westport.jpg>

Excellence

Subject: Geography

Standard: 91934 sample

Marker commentary
<p>This answer is at the Excellence Level. It explains how natural processes create phenomena within the environment, as well as discussing the wider impacts the phenomena have had on the chosen (cultural) environment in depth. The implications that two processes could have for people have also been discussed.</p> <p>Specific case study evidence is included throughout.</p>