

No part of the candidate evidence in this exemplar material may be presented in an external assessment for the purpose of gaining credits towards an NCEA qualification.

1

91007



910070



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD  
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

SUPERVISOR'S USE ONLY

Tick this box if  
there is no writing  
in this booklet

## Level 1 Geography 2020

### 91007 Demonstrate geographic understanding of environments that have been shaped by extreme natural event(s)

2.00 p.m. Wednesday 18 November 2020  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate geographic understanding of environments that have been shaped by extreme natural event(s).	Demonstrate in-depth geographic understanding of environments that have been shaped by extreme natural event(s).	Demonstrate comprehensive geographic understanding of environments that have been shaped by extreme natural event(s).

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

**You should attempt ALL parts of the question in this booklet.**

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–10 in the correct order and that none of these pages is blank.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**Low Achievement**

**TOTAL**

**03**

ASSESSOR'S USE ONLY

## INSTRUCTIONS

Name ONE type of **extreme natural event** and an **environmental case study** (or studies) of this event, that you will use to answer BOTH parts of the question in this booklet.

Extreme natural event: Christchurch Earthquake.

Environmental case study(ies): Denfield earthquake Port Hills Fault.

In your answers, you should integrate case study evidence as well as geographic terminology and concepts.

Geographic concepts you may choose to use in your answers include:

### Processes

A sequence of actions that shape and change environments.

### Environments

May be natural and / or cultural. They have particular characteristics and features, which can be the result of natural and / or cultural processes.

### Change

Involves any alteration to the natural or cultural environment. Change can be spatial and / or temporal. Change is a normal process in both natural and cultural environments. It occurs at varying rates, at different times, and in different places.

### Interaction

Involves elements of an environment affecting each other and being linked together. Interaction incorporates movement, flows, connections, links, and interrelationships, which work together and may be one- or two-way interactions. Landscapes are the visible outcome of interactions. Interaction can bring about environmental change.

## QUESTION

ASSESSOR'S  
USE ONLY

### (a) Processes

Processes involve a sequence of actions.

Fully explain the sequence of actions that produced the extreme natural event in your case study environment(s).

In your answer, include:

- geographic terminology
- a geographic concept from page 2
- integrated detailed supporting evidence from your case study (or studies).

An earthquake happens when the inner core of the earth's crust heats up, producing magma. When the magma is hot it rises. The magma then rises and creates a build up of stress and when the stress is released an earthquake occurs. This is what caused the Christchurch earthquake. This earthquake took place on the 22/02/2011 at 12:51pm it was a 6.3 magnitude earthquake and the fault was the Port Hills Fault. 153 people died due to this earthquake. This caused many people to be left homeless, there was a shortage of telephone service, sewerage, power, and more. The most effected part of Christchurch was east of the city where there was over 400,000 tonnes of liquefaction. Where many buildings got red-zoned



and turned into green parks. //

ASSESSOR'S  
USE ONLY

(b) **Effects**

Effects of extreme natural events can occur to both the natural and cultural environment. They can also be positive and/or negative.

Fully explain ONE **natural** effect (on page 7) and ONE **cultural** effect (on page 8) that your chosen extreme natural event had on your case study environment(s).

You may answer in annotated map, diagram, and/or paragraph form.

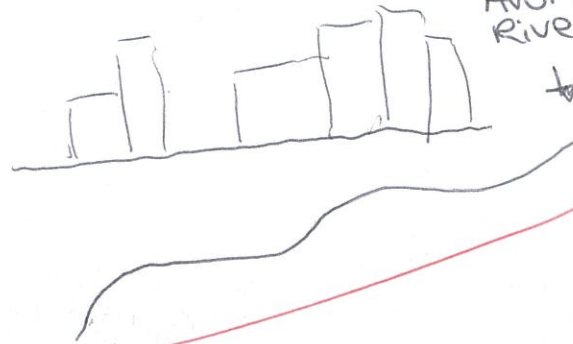
In your answer, include:

- geographic terminology
- a geographic concept from page 2
- integrated detailed supporting evidence from your case study (or studies).

Natural effect:

ASSESSOR'S  
USE ONLY

## ANNOTATED MAP AND/OR DIAGRAM

Buildings  
that are red-zoned.Avon  
River

The Christchurch earthquake ~~effected~~ made a natural effect on the <sup>avon</sup> river. ~~The~~ When the earthquake struck, the banks in the river collapsed causing the river to flood. Due to the river flooding the river became unhealthy and this caused the fish to die. And because of the fish dying the birds slowly died out as well because they didn't ~~have~~ have any food. Or the birds that nest close to the river would ~~of~~ gotten destroyed. ~~Mar~~ Due to the river flooding, the soil became weaker and the foundations of buildings collapsed causing many homes to be redzoned or turned into green parks. //

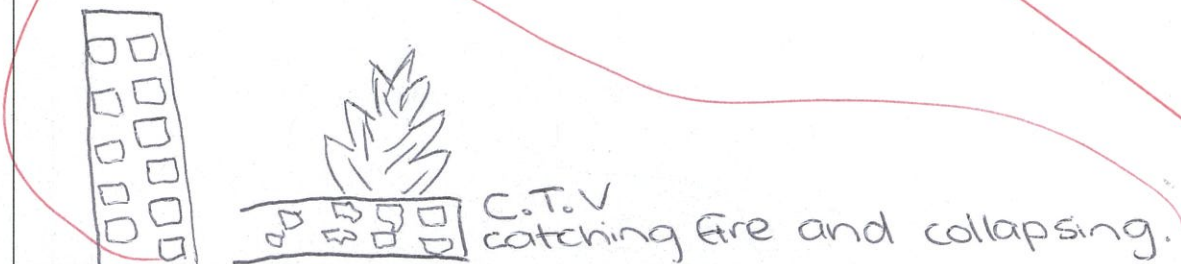
Please turn over ►



Cultural effect:

ASSESSOR'S  
USE ONLY

## ANNOTATED MAP AND/OR DIAGRAM



The Christchurch earthquake effected many significant buildings such as, the C.T.V, P.G.C, Christchurch cathedral and the ~~sanat~~ sanaterium factory. The C.T.V building killed 115 people either from the building collapsing or catching fire. The archutect of the C.T.V faked his digree ~~at~~ causing more damage than it should have. //

A3

## Low Achievement Exemplar 2020

Subject	Geography		Standard	91007	Total score	03
Q	Grade score	Annotation				
	A3	<p>Describes aspects of how extreme natural event(s) shape environments. They partially describe the processes that produced the Christchurch earthquake. There is a basic sequence of events with some evidence provided that is not all correct, for example, the death statistic is incorrect.</p> <p>The candidate partially describes how the Avon River flooded when the banks collapsed. This is the only specific reference in their response to their event and then the answer progresses into generic and flow-on effects without any evidence, followed by a link to cultural impacts. A very basic diagram is attempted with minimal labels.</p> <p>The cultural effects are only partially described. Names of buildings and a description of how people died in the CTV building are included. The final sentence about vulnerability is not relevant to the question.</p>				



1

91007



910070



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD  
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

SUPERVISOR'S USE ONLY

Tick this box if  
there is no writing  
in this booklet

## Level 1 Geography 2020

### 91007 Demonstrate geographic understanding of environments that have been shaped by extreme natural event(s)

2.00 p.m. Wednesday 18 November 2020  
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate geographic understanding of environments that have been shaped by extreme natural event(s).	Demonstrate in-depth geographic understanding of environments that have been shaped by extreme natural event(s).	Demonstrate comprehensive geographic understanding of environments that have been shaped by extreme natural event(s).

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

**You should attempt ALL parts of the question in this booklet.**

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–10 in the correct order and that none of these pages is blank.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**High Achievement**

TOTAL

04

ASSESSOR'S USE ONLY

## INSTRUCTIONS

Name ONE type of **extreme natural event** and an **environmental case study** (or studies) of this event, that you will use to answer BOTH parts of the question in this booklet.

Extreme natural event: Volcanic eruption

Environmental case study(ies): Eruption of Mt Tarawera (1886)

In your answers, you should integrate case study evidence as well as geographic terminology and concepts.

Geographic concepts you may choose to use in your answers include:

### Processes

A sequence of actions that shape and change environments.

### Environments

May be natural and / or cultural. They have particular characteristics and features, which can be the result of natural and / or cultural processes.

### Change

Involves any alteration to the natural or cultural environment. Change can be spatial and / or temporal. Change is a normal process in both natural and cultural environments. It occurs at varying rates, at different times, and in different places.

### Interaction

Involves elements of an environment affecting each other and being linked together. Interaction incorporates movement, flows, connections, links, and interrelationships, which work together and may be one- or two-way interactions. Landscapes are the visible outcome of interactions. Interaction can bring about environmental change.



## QUESTION

ASSESSOR'S  
USE ONLY

### (a) Processes

Processes involve a sequence of actions.

Fully explain the sequence of actions that produced the extreme natural event in your case study environment(s).

In your answer, include:

- geographic terminology
- a geographic concept from page 2
- integrated detailed supporting evidence from your case study (or studies).

The location of the Taupo Volcanic Zone lays parallel to the fault line. At this fault line is where the Pacific plate subducts (forced under) the Indo-Australian plate. Mt Tarawera is located in the Taupo Volcanic Zone which is where the volcanic eruption process starts. 3 domes (Tarawera, Ruawahia and ~~Whakarewarewa~~) all erupted on the night of June 10 1886. Since the eruptions were basalt eruptions, the magma would have been building up deep within the earth's mantle. ~~Where~~ Where Mt Tarawera is, the earth's crust is very thin at only 8-12km thick. The build up of pressure and magma had finally pierced through the crust. During the eruption, the hot magma came in to contact with a lot of water that was under the surface. This created



a phreatomagmatic eruption (an extremely violent eruption caused by the reaction of magma and water). All of these small details lead to a very large explosions.

(b) **Effects**

Effects of extreme natural events can occur to both the natural and cultural environment. They can also be positive and/or negative.

Fully explain ONE **natural** effect (on page 7) and ONE **cultural** effect (on page 8) that your chosen extreme natural event had on your case study environment(s).

You may answer in annotated map, diagram, and/or paragraph form.

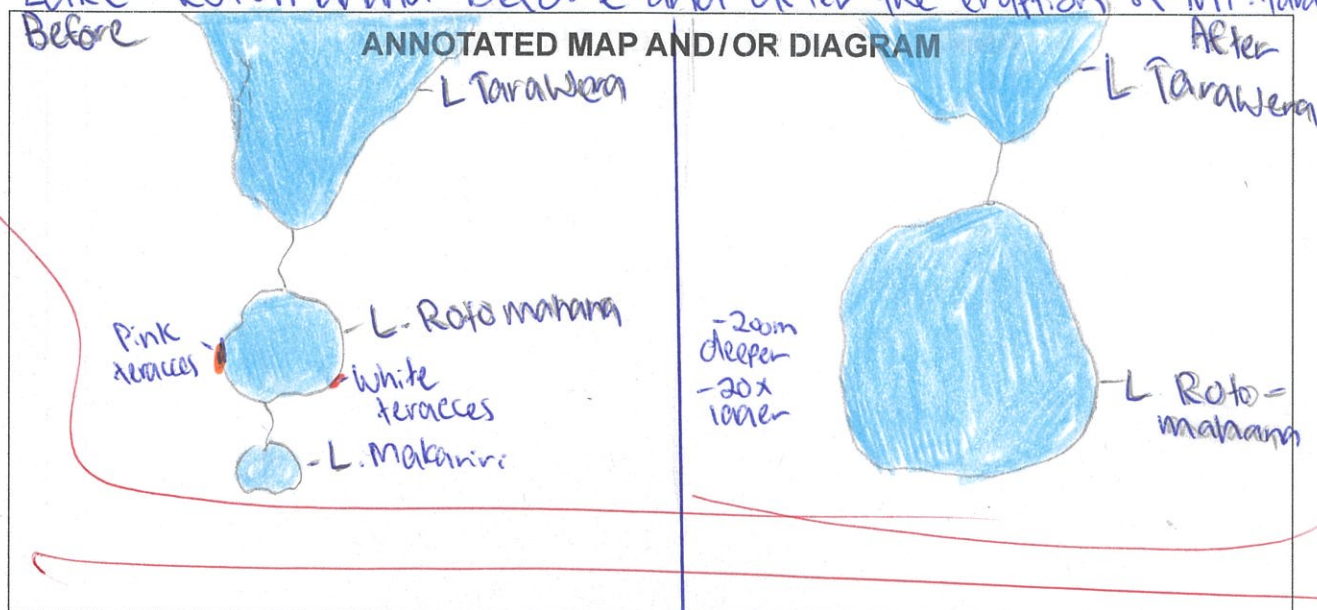
In your answer, include:

- geographic terminology
- a geographic concept from page 2
- integrated detailed supporting evidence from your case study (or studies).



## Natural effect:

Lake Rotomahana - before and after the eruption of Mt. Tarawera

ASSESSOR'S  
USE ONLY

The natural effects ~~was~~ was a crazy change. Many of the land changed so suddenly. The phreatomagmatic eruption completely opened up Lake Rotomahana. ~~When~~ But also took out (or joined with lake Rotomahana) Lake Makariri which can be seen below lake Rotomahana in diagram 1. The stream connecting lake Rotomahana and lake Makariri is no where to be seen.

The eruption enlarged lake Rotomahana by 20x larger in area and approximately 200m deeper. ~~At~~ Before 1886, the lake shore used to have beautiful pink and white terraces which were shattered during the eruption. The terraces are now buried under thick mud at the bottom of Lake Rotomahana. This is a negative impact. ~~✓~~

Please turn over ➡



Cultural effect:

ASSESSOR'S  
USE ONLY

## ANNOTATED MAP AND/OR DIAGRAM

All of the destruction of the eruption of Mt Tarawera left their tourism industry in shambles. Since Te Wairoa's main source of money came from the natural attractions such as the Pink and White terraces and the Tipitaku forest, there was nothing left for the tourists to come and see. Not only that, but many tourists were too paranoid to go to Te Wairoa in fear that another eruption would occur during their stay. This had a great (negative) impact on Te Wairoa and other towns who profited from the attraction's economy. Without tourism they had very little money to pay for damages, insurance and for anything in general.

A4

## High Achievement Exemplar 2020

Subject	Geography		Standard	91007	Total score	04
Q	Grade score	Annotation				
	A4	<p>Describes the processes that produced the Tarawera eruption. The sequence is a bit jumbled but is still evident. There are a few inclusions of case study evidence with use of some good terminology. None of the steps in the sequence have been explained to warrant Merit.</p> <p>Describes how the eruption changed Lake Rotomahana, but there is no explanation as to how it changed. There are some case study examples, and the diagram is clear and shows the change very clearly. To gain Merit they needed to explain how the change occurred.</p> <p>Describes the cultural effects of the eruption with some supporting evidence, and the student clearly understands the change and impact from the eruption. There is insufficient case study evidence to gain Merit. Some data or statistics would have improved their overall response.</p>				