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NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

SUPERVISOR'S USE ONLY

## Level 1 Geography, 2011

### 91010 Apply concepts and basic geographic skills to demonstrate understanding of a given environment

9.30 am Wednesday 23 November 2011

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Apply concepts and basic geographic skills to demonstrate understanding of a given environment.	Apply concepts and basic geographic skills to demonstrate in-depth understanding of a given environment.	Apply concepts and basic geographic skills to demonstrate comprehensive understanding of a given environment.

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 ALL questions in this booklet.**

Pull out Resource Booklet 91010R from the centre of 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 2–11 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.**

**TOTAL**

ASSESSOR'S USE ONLY

You are advised to spend 60 minutes answering the questions in this booklet.

### QUESTION ONE: MAPS, PHOTOGRAPHS AND SATELLITE IMAGES

Read the following **Geographic Concept**, and refer to it when answering this question.

#### Geographic Concept

**Location** is the position of a feature in terms of direction and distance. Location may be given using longitude and latitude, or by reference to the position of other phenomena.

#### World Map

Equator

*For copyright reasons, this resource cannot be reproduced here.*

Tasman Sea

Prime Meridian

Antarctica

Source (adapted): [http://cse.ssl.berkeley.edu/SegwayEd/lessons/search\\_ice\\_snow/worldmapL.gif](http://cse.ssl.berkeley.edu/SegwayEd/lessons/search_ice_snow/worldmapL.gif)

Refer to the **Geographic Concept** and the **World Map** above, when answering (a).

(a) Write a geographic description of New Zealand's location.

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Refer to **Resource B** on page 3 of the resource booklet when answering (b).

- (b) (i) Name TWO lakes that are located north of Twizel.
- (1) \_\_\_\_\_
- (2) \_\_\_\_\_
- (ii) The state highway from Twizel to Timaru, located on the east coast of the South Island, travels through land of varying heights.

Give the maximum height of the land that the state highway passes through, by referring to the key.

\_\_\_\_\_

### Topographic Map Interpretation

Refer to **Resource C** on pages 4 and 5 of the resource booklet when answering (c).

- (c) (i) Give the number of the state highway that links Twizel with Tekapo.
- State Highway: \_\_\_\_\_
- (ii) Give the longitude for Twizel (in degrees and minutes) that is given on the map.
- Longitude: \_\_\_\_\_ E
- (iii) Give the six-figure grid reference for the Twizel Golf Course, by referring to the key on the map.

Grid reference: \_\_\_\_\_

- (iv) What is the length of the airstrip found to the south-east of Twizel (Area Reference (AR) 7092)?

Airstrip length: \_\_\_\_\_

There are a number of problems for small aircraft taking off and landing on this airstrip.

Give ONE piece of evidence from the map that identifies a problem for aircraft that has been caused by the development of the Ohau Power Stations.

Problem: \_\_\_\_\_

Evidence: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- (v) What is the height above sea level of the Beacons Trig Station in AR 6994?

Height: \_\_\_\_\_

**Map and Photograph Interpretation**

Refer to BOTH **Resource C** on pages 4 and 5 of the resource booklet, AND **Resource D** on page 6, when answering (d).

- (d) (i) Study the photograph of the old iron bridge (located at grid reference 677923).

Which direction was the photographer facing when the photo was taken?

Direction: \_\_\_\_\_

- (ii) The satellite image shows some changes since the topographic map was drawn.

Describe what change has occurred to the land north of the corner of Max Smith Drive and Ostler Road in AR 6694.

Change: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- (iii) State TWO advantages of photographs for geographers when examining changes in the Twizel area.

Give reasons for your answers.

(1) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(2) \_\_\_\_\_

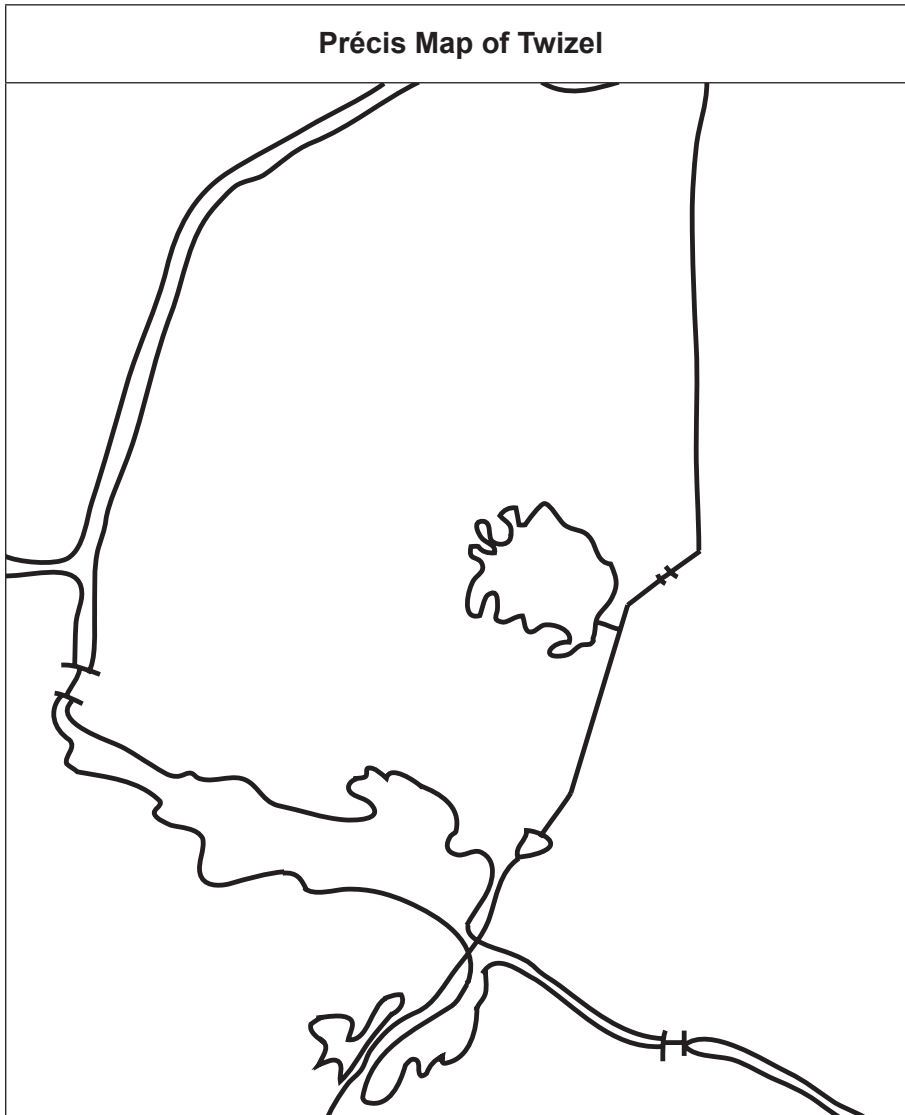
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## Précis Mapping

Refer to **Resource C** on pages 4 and 5 of the resource booklet when answering (e).

- (e) On the **précis map** of Twizel below, **locate and label**:
- the oxidation ponds east of Twizel
  - the Twizel River south-east of the bridge on State Highway 8
  - the area of trees to the north of Kate Cameron Drive and south of the campground
  - the highest point on Mt Ostler.



### Key:

	Oxidation ponds
	Twizel River
	Area of trees
	Mt Ostler

## QUESTION TWO: GRAPHS, TABLES AND STATISTICS

Refer to **Resource E** on page 7 of the resource booklet, when answering (a) and (b).

- (a) Construct a **line graph** to show the population of Twizel from 1966 to 2011.

**Title:** \_\_\_\_\_

The Twizel i-site website states:

‘Today Twizel is a service and tourist town in the Mackenzie Basin with a residential population of approximately 1 200 people. Popular as a holiday town, in summer the population total more than trebles.’

- (b) Based on the i-site information above, and the 2011 figures in Resource E, calculate approximately how many people will spend time in Twizel during the 2011–2012 summer.

\_\_\_\_\_

Refer to **Resource F** on page 7 of the resource booklet when answering (c).

(c) (i) Which month receives the highest amount of rainfall at Aoraki/Mt Cook Village?

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(ii) State the highest amount of rainfall at Aoraki/Mt Cook Village.

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(iii) Which ONE of Aoraki/Mt Cook Village OR Twizel experiences the highest monthly average temperature?

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(iv) State the highest monthly average temperature for the location you named in (iii).

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(v) Use BOTH the 'Climate Graph for Aoraki/Mt Cook Village' and the 'Monthly Rainfall and Average Monthly Temperature for Twizel' table, to compare the climate in these two locations.

Refer to BOTH rainfall AND temperature in your comparison.

Include **specific information** from Resource F in your answer.

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**QUESTION THREE: APPLICATION OF GEOGRAPHIC CONCEPTS**

Read the following **Geographic Concept**, and refer to it, as well as **Resource A** on page 2 and **Resources D–G** on pages 6–8 of the resource booklet, when answering this question.

**Geographic Concept**

**Change** involves any alteration to the natural or cultural environment. It occurs at varying rates, at different times, and in different places. People, individually or collectively, through their decisions and actions, may bring about change.

Fully explain the geographic concept of '**change**' in Twizel.

In your answer, give supporting evidence under the following THREE headings:

- (a) **Physical** changes (including land use change)
- (b) **Population** changes
- (c) **Recreational** changes.

(a) Physical changes (including land use change): \_\_\_\_\_

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(c) Recreational changes: \_\_\_\_\_

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