

# Geography

## Year 11 — Data response test

**Time allowed** Organisation and login time: 10 minutes  
Reading time: 10 minutes  
Writing time: 90 minutes

**Materials provided**

1. Access to the online system
2. Question book for reference only (this book)
3. Instrument-specific standards (at the back of this book)
4. Stimulus
5. Decision-making planning matrix for Item 4. Using the matrix is **optional** and planning notes **will not be marked**.

### Equipment

Equipment	Comments
pens or pencils and eraser	ensure materials have no added text or handwriting
approved calculator	

### Guidelines

- The online system is accessible for 100 minutes from the time the system opens.
- The stimulus (hard copy) may be annotated during reading time.
- Respond in the spaces provided in the online response book.
- You may use this book and drafting paper for planning, but they will not be marked.

### Instrument

The **data response examination** consists of four items:

- Items 1–3 will assess Analytical processes
- Item 4 will assess Decision-making processes
- Items 1–4 will assess Research and communication.

### Responses

When responding to each item:

- construct sentences for Items 1–2
- construct sentences or use point form for Item 3
- construct paragraphs for Item 4
- analyse data from the stimulus and use as evidence to support all responses
- acknowledge use of sources with an appropriate form of in-text referencing.

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## Data response examination

### Geographical context

An earthquake is a geological hazard that results in the shaking and vibration of the Earth's crust through the release of built-up pressure. Earthquakes are commonly caused by volcanic or tectonic activity and occur frequently throughout the world.

Chile is located along the west coast of South America. Its population is approximately 17.5 million, with 89.5% living in urban areas. Accordingly, Chileans live with the constant threat that these hazards will cause a major disaster.

### Analytical processes

#### ITEM 1

Describe the global pattern of seismic activity. With reference to Chile, explain the physical processes that have contributed to the pattern of seismic activity occurring in this location.

Respond in sentences

75–100 words

Use specific data and refer to sources

#### ITEM 2

Using slab depth profiles C and D in source 3, explain the physical relationships associated with earthquake activity on the west coast of South America. Identify one anomaly in the location of earthquakes and explain why it is an anomaly.

Respond in sentences

100–150 words

Use specific data and refer to source 3 and other sources

**ITEM 3**

Determine the likely social, economic and physical impacts of the 2010 earthquake in Chile, on the capital city of Santiago identified in sources 3 and 6.

Respond in sentences or use point form

100–150 words

Use specific data and refer to sources 3 and 6 and other sources

## Decision-making processes

Chile's National Emergency Office of the Ministry of Interior and Public Security (ONEMI) has been leading an initiative to implement an emergency management plan for the urban areas identified in source 6. Two proposals have been put forward.

### Proposal 1: Building code compliance

Comply with strict building codes for new and reconstructed buildings (both commercial and residential) to withstand earth tremors.

### Proposal 2: Adoption of the USA-devised ShakeOut Drill and ShakeAlert technology

Adopt the USA-devised ShakeOut plus Tsunami Evacuation Drill and newly developed early warning system (ShakeAlert) linked to global positioning systems (GPS) and short message service (SMS) technology.

## Decision-making criteria

1. Reduces loss of life and injury
2. Reduces damage to infrastructure and personal property
3. Implementation is likely to be effective and efficient

## ITEM 4

Evaluate each emergency management proposal for urban areas by applying the decision-making criteria. Based on the evaluation, decide which proposal should be prioritised for action. Justify the decision by explaining why the chosen proposal should be prioritised.

Respond in paragraphs

Up to 200 words

Use specific data and refer to sources

**END OF PAPER**

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## Geography instrument-specific standards

	Standard A	Standard B	Standard C	Standard D	Standard E
	The student work has the following characteristics:				
<b>Analytical processes</b>	<ul style="list-style-type: none"> <li>in-depth identification and explanation of geographical patterns and processes</li> <li>insightful interpretation and extrapolation of geographical information</li> <li>accurate identification and thorough explanation of simple and complex relationships, including an anomaly</li> </ul>	<ul style="list-style-type: none"> <li>detailed identification and explanation of geographical patterns and processes</li> <li>effective interpretation and extrapolation of geographical information</li> <li>mostly accurate identification and significant explanation of simple and complex relationships</li> </ul>	<ul style="list-style-type: none"> <li>identification and explanation of some geographical patterns and processes</li> <li>some interpretation and extrapolation of geographical information</li> <li>identification and explanation of simple relationships</li> </ul>	<ul style="list-style-type: none"> <li>identification of simple geographical patterns and processes</li> <li>superficial interpretation and extrapolation of geographical information</li> <li>identification of some simple relationships</li> </ul>	<ul style="list-style-type: none"> <li>identification of some simple geographical patterns</li> <li>unsubstantiated geographical information</li> <li>relationships are inadequately identified or established</li> </ul>
<b>Decision-making processes</b>	<ul style="list-style-type: none"> <li>comprehensive and thorough evaluation of alternative proposals, strategies, solutions and plans</li> <li>insightful and balanced application of the range of appropriate criteria to the decision</li> <li>well reasoned and logical arguments to justify decisions</li> </ul>	<ul style="list-style-type: none"> <li>detailed evaluation of alternative proposals, strategies, solutions and plans</li> <li>effective and balanced application of appropriate criteria to the decision</li> <li>supported arguments to justify decisions</li> </ul>	<ul style="list-style-type: none"> <li>evaluation of alternative proposals, strategies, solutions and plans</li> <li>application of some criteria to the decision</li> <li>justification of decisions</li> </ul>	<ul style="list-style-type: none"> <li>some evaluation of alternative proposals, strategies, solutions and plans</li> <li>some connections to factors affecting the decisions</li> <li>decisions are stated without justification</li> </ul>	<ul style="list-style-type: none"> <li>some unconnected conclusions about the geographical problems</li> <li>no decisions evident</li> </ul>
<b>Research and communication</b>	<ul style="list-style-type: none"> <li>clear, concise and fluent expression, using accurate language</li> </ul>	<ul style="list-style-type: none"> <li>clear expression, using appropriate language</li> </ul>	<ul style="list-style-type: none"> <li>mostly clear expression, using basic language</li> </ul>	<ul style="list-style-type: none"> <li>unclear expression, using restricted language</li> </ul>	<ul style="list-style-type: none"> <li>obscure expression with little or no use of language</li> </ul>