Geography (2007)
Sample assessment instrument and student responses

Short response test
May 2010
**Purposes of assessment**

The purposes of assessment are to:

- promote, assist and improve student learning
- inform programs of teaching and learning
- provide information for those people — students, parents, teachers — who need to know about the progress and achievements of individual students to help them achieve to the best of their abilities
- provide information for the issuing of certificates of achievement
- provide information to those people who need to know how well groups of students are achieving (school authorities, the State Minister for Education and Training and the Arts, the Federal Minister for Education).

It is common practice to label assessment as being formative, diagnostic or summative, according to the major purpose of the assessment.

The major purpose of formative assessment is to help students attain higher levels of performance. The major purpose of diagnostic assessment is to determine the nature of student learning, and then provide the appropriate feedback or intervention. The major purpose of summative assessment is to indicate the achievement status or standards achieved by students at a particular point in their schooling. It is geared towards reporting and certification.

**Syllabus requirements**

Teachers should ensure that assessment instruments are consistent with the requirements, techniques and conditions of the Geography syllabus and the implementation year 2007.

**Assessment instruments**

High-quality assessment instruments:

- have construct validity (the instruments actually assess what they were designed to assess)
- have face validity (they appear to assess what you believe they are intended to assess)
- give students clear and definite instructions
- are written in language suited to the reading capabilities of the students for whom the instruments are intended
- are clearly presented through appropriate choice of layout, cues, visual design, format and choice of words
- are used under clear, definite and specified conditions that are appropriate for all the students whose achievements are being assessed
- have clear criteria for making judgments about achievements (these criteria are shared with students before they are assessed)
- are used under conditions that allow optimal participation for all
- are inclusive of students’ diverse backgrounds
- allow students to demonstrate the breadth and depth of their achievements
- only involve the reproduction of gender, socioeconomic, ethnic or other cultural factors if careful consideration has determined that such reproduction is necessary.

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2. Assessment instruments are the actual tools used by schools and the QSA to gather information about student achievement, for example, recorded observation of a game of volleyball, write-up of a field trip to the local water catchment and storage area, a test of number facts, the Senior External Examination in Chinese, the 2006 QCS Test, the 2008 Year 4 English comparable assessment task.
Geography (2007)

Sample assessment instrument and student responses

Short response test

Compiled by the Queensland Studies Authority
May 2010

The QSA acknowledges the contribution of District and State Geography panels in the preparation of this document.

About this assessment instrument

The purpose of this document is to inform assessment practices of teachers in schools. For this reason, the assessment instrument is not presented in a way that would allow its immediate application in a school context. In particular, the assessment technique is presented in isolation from other information relevant to the implementation of the assessment. For further information about those aspects of the assessment not explained in this document, please refer to the assessment section of the syllabus.

This sample provides opportunities for students to demonstrate:

- geographic facts, concepts and key ideas, and explanations of the relationships between people and their environments
- characteristics of natural and cultural phenomena across a range of scales
- processes that affect the location, distribution and arrangement of geographical elements on earth
- the impact of people on the environment
- the impact of the environment on quality of life
- equity issues as they apply to geography

This sample assessment instrument is intended to be a guide to help teachers plan and develop assessment instruments for individual school settings.
Assessment instrument

The student work presented in this sample is a response to assessment items which are subsets or parts of an assessment instrument.

Question 1(A): Note: Figure 1 is deleted due to copyright restrictions.

**TASK A:** Name each of the plates identified by the numbers 1–6 on Figure 1: *The plates of the Earth’s crust.*

1. _____________________________ 4. _____________________________
2. _____________________________ 5. _____________________________
3. _____________________________ 6. _____________________________

**TASK B:** Through using arrows on Figure 1 show the direction of movement for plates 1, 2, 3 and 4.

**TASK C:** Locate and name on Figure 1 each of the following.
- Haiti
- Los Angeles
- San Francisco
- Chile Trench
- Mid Atlantic Ridge

**Question 1(B):**
Following the recent earthquake in Haiti, a seismologist was reported as saying *that it was inevitable that Haiti would eventually experience a major earthquake.* With the aid of the map you completed in Question 1 (A), explain what was meant by this statement. (75–100 words)

**Question 2:**
With reference to the map you completed for Question 1 (A), explain why the area of California in the USA, around Los Angeles and San Francisco, experiences so many earthquakes. With reference to one or two of the earthquakes experienced in this area describe how severe these earthquakes can be. (75–100 words)

**Question 3:**
How have the people living in Los Angeles and San Francisco and the government authorities responded to the ever present threat of earthquake activity? (75–100 words)

**Question 4:**
List and describe the factors, apart from the earthquake magnitude, that made the Boxing Day 2004 Sumatran earthquake and tsunami so devastating? (75–100 words)

**Question 5:**
Following the Boxing Day 2004 earthquake and tsunami, it was decided that the Indian Ocean countries required a tsunami warning system. What is this and how does it operate? What was the main issue in setting this system up and what else might have been useful to ensure a better response by the people to future potential tsunamis? (75–100 words)
**Instrument-specific criteria and standards**

Schools draw instrument-specific criteria and standards from the syllabus dimensions and exit standards. Schools will make judgments about the match of qualities of student responses with the standards descriptors that are specific to the particular assessment instrument. While all syllabus exit descriptors might not be assessed in a single assessment instrument, across the course of study, opportunities to demonstrate all the syllabus dimensions and standards descriptors must be provided.

The assessment instrument presented in this document provides opportunities for the demonstration of the following criteria:

- knowledge

This document provides information about how the qualities of student work match the relevant instrument-specific criteria and standards at standards A and C. The standard A and C descriptors are presented below. The complete set of instrument-specific criteria and standards is in the appendix.

<table>
<thead>
<tr>
<th>Standard A</th>
<th>Standard C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>The student work has the following characteristics:</td>
<td>The student work has the following characteristics:</td>
</tr>
<tr>
<td>- <strong>thorough and comprehensive</strong> coverage of geographical facts, concepts, key ideas, processes and explanations</td>
<td>- <strong>basic</strong> coverage of geographical facts, major concepts, key ideas, processes and explanations</td>
</tr>
<tr>
<td>- <strong>spatial information</strong> is <strong>thorough, accurate and relevant</strong></td>
<td>- <strong>spatial information</strong> is <strong>accurate and relevant but has limited detail</strong></td>
</tr>
</tbody>
</table>

**Key:**

- **Qualifier that defines the standard of geographical knowledge**
- **Aspects of the general objectives**
Standard A

**Note:** “[…]” indicates where the text has been abridged.

<table>
<thead>
<tr>
<th>Standard descriptors</th>
<th>Student response A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of spatial information is accurate</td>
<td>QUESTION 1 (A): Use Figure 1: <em>The Plates of the Earth’s Crust</em>, to complete each of the tasks that follow.</td>
</tr>
</tbody>
</table>

Image deleted due to copyright. This image contains the student’s responses to Tasks B and C.

![Figure 1: The plates of the earth’s crust](image)


**TASK A:** Name each of the plates identified by the numbers 1-5 on Figure 1: *The Plates of the Earth’s Crust*.

1. North American Plate
2. Pacific Plate
3. Caribbean Plate
4. South American Plate
5. Juan De Fuca Plate
6. Cocos Plate

**TASK B:** Through using arrows on Figure 1 show the direction of movement for plates 1 and 4.

**TASK C:** Locate and name on Figure 1 each of the following:

- Haast
- Los Angeles
- San Francisco
- Chile Trench
- Mid Atlantic Ridge
QUESTION 1 (B):

- Following the recent earthquake in Haiti during 2010, a seismologist was reported as saying that it was inevitable that Haiti would eventually experience a major earthquake. With the aid of the map you completed in QUESTION 1 (A) explain what was meant by this. (75-100 words)

It was inevitable that Haiti would eventually experience a major earthquake because of its location on the earth's surface. Haiti is located on the Caribbean plate, bordering the North American Plate to the north and the South American Plate to the south. The Caribbean plate is moving in a southerly direction which causes a converging plate boundary with the South American plate. This means that the Caribbean Plate is being subducted under the South American plate, which causes the plate boundary to be very unstable. Haiti is also close to the diverging plate boundary between the North American plate and the Caribbean because these plates are moving away from each other. Because Haiti is located at the junction of these three plates it was inevitable that it would experience a major earthquake because of the plate's constant movement.
“Explain why” – learned analysis provides **thorough** coverage of geographical information necessary for A standard

**Thorough** coverage of case studies

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**QUESTION 2:**

- With reference to the map you completed for QUESTION 1 (A), explain why the area of California in the USA, around Los Angeles and San Francisco, experiences so many earthquakes. With reference to one or two of the earthquakes experienced in this area describe how severe these earthquakes can be. (75-100 words)

California experiences constant earthquake activity because the San Andreas Fault runs for roughly 1300 km through the state. This continental transform fault is caused by the North American plate and the Pacific plate moving past each other. The cities of San Francisco and Los Angeles experience many earthquakes because they are close to the fault. Although not all of the earthquakes caused by the San Andreas Fault are severe, some of the major earthquakes have had large effects on these cities. In 1906, the 1906 earthquake, which destroyed 80% of the city and the 1989 Loma Prieta earthquake, which caused unbelievable damage to infrastructure with collapsed bridges and freeways, fires, shattered structures, gaping cracks in roads and landslides, are two of the major earthquakes caused by the San Andreas Fault.
QUESTION 3:

- How have the people living in Los Angeles and San Francisco and the government authorities responded to the ever present threat of earthquake activity? (75-160 words)

There are various ways in which the people of San Francisco and Los Angeles have been prepared for earthquakes. Strict building regulations, raising public awareness, and education programs are two of the strategies the government authorities have put into action. Structures that are resistant to earthquake activity are the first line of defense against earthquake damage. Design guidelines are updated as new knowledge is learnt on structures’ response to seismic activity. These are applied to new constructions and structures that are susceptible to earthquake damage are strengthened or retrofitted. Education programs are also in place to help people prepare for earthquakes as well as the booklet “Handbook on putting downroots in earthquake country,” which gives the public seven steps on how to prepare themselves for earthquakes.
**Standard A**

**Comprehensive coverage**  
– six factors listed and described

**QUESTION 4:**

- List and describe the factors, apart from the earthquake magnitude, that made the Boxing Day 2004 Sumatran earthquake and tsunami so devastating? (75-100 words)

The Boxing Day 2004 Sumatran earthquake and tsunami was so devastating for the people affected because of a number of reasons. Apart from the earthquake being a magnitude 9.1, because the area affected was an LDC, there was lack of preparation and education of earthquakes and tsunamis. There was also unstable infrastructure due to poor construction and unskilled workers. The town also didn't have acceptable building regulations for an earthquake prone area. Indonesia has a very high population density which caused more people to be affected by the disaster. As well as this, the earthquake occurred in the summer holidays, therefore there would have been extra tourists present who would have been affected because it was a tourist destination.
On balance, the qualities of the student work can be matched to the descriptors for standard A. Coverage of geographical information is thorough, that is, demonstrates a depth of knowledge of the case studies; and comprehensive, that is, demonstrates a breadth of knowledge of the key ideas.
### Standard C

**Note:** “[…℄” indicates where the text has been abridged.

<table>
<thead>
<tr>
<th>Standard descriptors</th>
<th>Student response C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>QUESTION 1 (A):</strong> Use Figure 1: <em>The Plates of the Earth’s Crust</em>, to complete each of the tasks that follow.</td>
<td></td>
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Image deleted due to copyright.  
This image contains the student’s responses to Tasks B and C.

Figure 1: The plates of the earth’s crust  

**TASK A:** Name each of the plates identified by the numbers 1-6 on Figure 1: *The Plates of the Earth’s Crust*.

1. **North American Plate**
2. **Pacific Plate**
3. **Carribean Plate**
4. **South American Plate**
5. **San Andreas Fault**
6. **Cocos Plate**

**TASK B:** Through using arrows on Figure 1 show the direction of movement for plates 1, 2, 3 and 4.

**TASK C:** Locate and name on Figure 1 each of the following.

- Haiti
- Los Angeles
- San Francisco
- Chile Trench
- [Mid Atlantic Ridge] — this is highlighted twice it’s
**QUESTION 1 (B):**

- Following the recent earthquake in Haiti during 2010, a seismologist was reported as saying that it was inevitable that Haiti would eventually experience a major earthquake. With the aid of the map you completed in QUESTION 1 (A) explain what was meant by this. (75-100 words)

"Referring to Figure 1 Haiti is located on the Caribbean plate. As the city is not located near a plate boundary or fault it is understood that this city would not experience earthquake activity. As the plates are diverging plates meaning that it pulls away from other plates, it is getting further away from other plates. This is why the city would not experience major earthquakes. Though as shown in Figure 1 Haiti is located very close to the Carribean Sea, this is incorrect as the city is located very close to the Carribean Sea."
**Standard C**

"Explain why" — basic coverage

Some information does not accurately refer to the case study.

**Basic** coverage of information — aligns with C standard.

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**QUESTION 2:**

- With reference to the map you completed for QUESTION 1 (A), explain why the area of California in the USA, around Los Angeles and San Francisco, experiences so many earthquakes. With reference to one or two of the earthquakes experienced in this area describe how severe these earthquakes can be. (75-100 words)

> The cities of Los Angeles and San Francisco are located near the San Andreas Fault line. This Fault line is a transparent fault meaning it is grinding north or south. The San Andreas Fault separates the Pacific and North American Plates. These cities experience so many earthquakes due to the constant movement and grinding of these plates. In 1906 San Francisco was devastated by a large earthquake causing a massive fire caused by gas leaks. Destroying a large area of the city Los Angeles relies greatly on cars as a mode of transport. Because of this the city is lined with many roads and bridges. In 1971 another large quake devastated these cities, though in Los Angeles many bridges collapsed, one major collapse was one of the major arteries leading in and out of the city.
Methods of response identified in greater detail — aligns with B standard

Short response tests assess geographical information only.

Knowledge can be demonstrated even though expression is weak.

QUESTION 3:

- How have the people living in Los Angeles and San Francisco and the government authorities responded to the ever present threat of earthquake activity? (75-100 words)

Due to the constant earthquake activity that are occurring in these cities, the government has responded in various ways. As these cities are so greatly populated, and fire is a main cause of damage post-earthquake, the infrastructure has changed and many building codes and regulations have to be approved. This includes regulations to houses and apartments, building and bridges and roads and major gas lines. Education plays a massive role within the community of these cities. Education of certain houses and buildings must be known before the purchase of a house or apartment and education of what to do during an earthquake. Authorities have also established a laser which is located in the fault to measure and determine when earthquakes may happen, allowing awareness for the communities.
QUESTION 4:

- List and describe the factors, apart from the earthquake magnitude, that made the Boxing Day 2004 Sumatran earthquake and tsunami so devastating? (75-100 words)

One of the most devastating disasters was the Boxing Day tsunami caused by a 9.3 magnitude earthquake located off the coast of Sumatra. This tsunami was so devastating in the most affected areas were popular tourist destinations. Baner Acheh was the closest town to the epicenter and was destroyed. This disaster was so devastating due to a number of reasons, the main being lack of knowledge of what a tsunami may occur. Many towns as the sea receded revealed hundreds of victims of seatime, many people were inquisitive and did not know what was happening; and stayed on shore. Due to the economic status of these countries, there was no warning of the earthquake and no knowledge of the ensuing tsunami. As these countries are LESC countries and so heavily populated, many people were killed and towns were destroyed and exposed to disease due to the lack of infrastructure.
Standard C

QUESTION 5:

- Following the Boxing Day 2004 earthquake and tsunami it was decided that the Indian Ocean countries required a Tsunami early warning system. What is this and how does it operate? What was the main issue in setting this system up and what else might have been useful to ensure a better response by the people to future potential tsunamis? (75-100 words)

On balance, the qualities of the student work can be matched to the descriptors for standard C. Coverage of geographical information is basic, that is, lacks depth of knowledge as evidenced by inconsistency in the recall of facts and concepts.
## Instrument-specific criteria and standards

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<thead>
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<td>• spatial information is <strong>fragmented or inaccurate</strong></td>
</tr>
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**Key:** Qualifier that defines the standard of geographical knowledge.