

Centre Number

71

Candidate Number

General Certificate of Secondary Education  
2011

## Geography

Unit 1:  
Understanding Our Natural World  
Foundation Tier  
[GGG11]



MONDAY 13 JUNE, MORNING

### TIME

1 hour 30 minutes.

### INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Answer **all three** questions.

You are provided with an O.S. map for use with **Question 1**.

Do **not** write your answers on this map.

### INFORMATION FOR CANDIDATES

The total mark for this paper is 100.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in  
questions 1(f)(i), 1(g) and 2(e)(i).

For Examiner's use only	
Question Number	Marks
1	
2	
3	

Total Marks	

Answer **all three** questions.

Examiner Only	
Marks	Remark

### Theme A: The Dynamic Landscape

1 (a) Study the Ordnance Survey extract of Blakeney Point, England and answer the questions which follow.

(i) State the height of the land on the A149, a main road, at GR 083438.

\_\_\_\_\_ metres [1]

(ii) State the straight line distance from the Parking at GR 049453 to the tip of Pits Point at GR 004456.

\_\_\_\_\_ km [2]

(iii) Underline the direction of Blakeney Point (GR 0046) from Weybourne (GR 1142).

**south east**      **north east**      **north west**      **east**      [1]

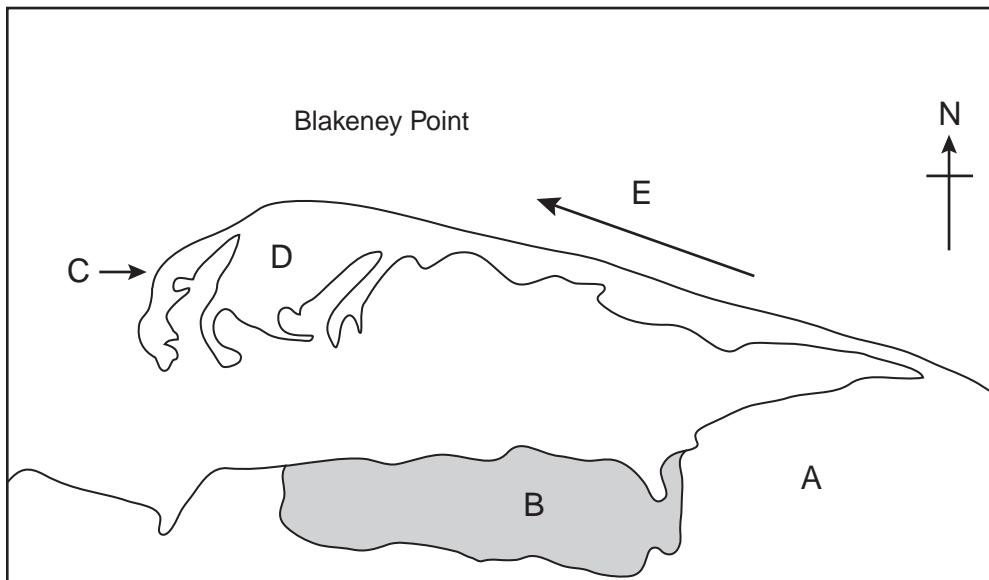
(iv) This area is very popular with tourists. Match the following activities to their locations. One has been completed for you.

Activity	Location
Playing on a sandy beach	• 1043
Exploring the Nature reserve	• 1342
Going on a forest trail	• 1643
Sightseeing from the viewpoint	• 0544
Camping	• 1141

[4]

(b) (i) Blakeney Point GR 0046 is an example of a spit. **Fig. 1** shows the spit at Blakeney Point. Using the Ordnance Survey map to help you, complete the key by matching the letters on **Fig. 1** to the correct label on the key.

Examiner Only	
Marks	Remark



**Fig. 1**

Key	
Letter on Fig. 1	Label
	Direction of Longshore Drift
	Mainland
D	Sand dunes
	Shingle
	Salt Marshes

[4]

(ii) A spit is caused by deposition. State the meaning of the term **deposition**.

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[2]

**(iii)** There are two main types of waves – constructive and destructive waves. Complete the following sentences to compare constructive and destructive waves. Choose your answer from the list below.

**constructive**      **destructive**      **erode**      **build up**      **less**      **more**

1. In \_\_\_\_\_ waves the backwash is much stronger than the swash.
2. \_\_\_\_\_ waves are low and far apart.
3. Destructive waves are \_\_\_\_\_ frequent than constructive waves.
4. Constructive waves \_\_\_\_\_ the beach. [4]

**(iv)** Sea cliffs are formed by erosion. Name **two** processes by which the coast is eroded.

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[2]

(c) Study **Fig. 2** which shows a photograph of groynes along the coast at Sheringham between GR 1543 and GR 1643.



© www.walkingbritain.co.uk

**Fig. 2**

(i) Describe how this method of coastal protection works.

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[3]

(ii) For a named area you have studied in the British Isles, describe **one** other method used to protect a coastline and state to what extent it is sustainable.

Area \_\_\_\_\_ [1]

Method \_\_\_\_\_

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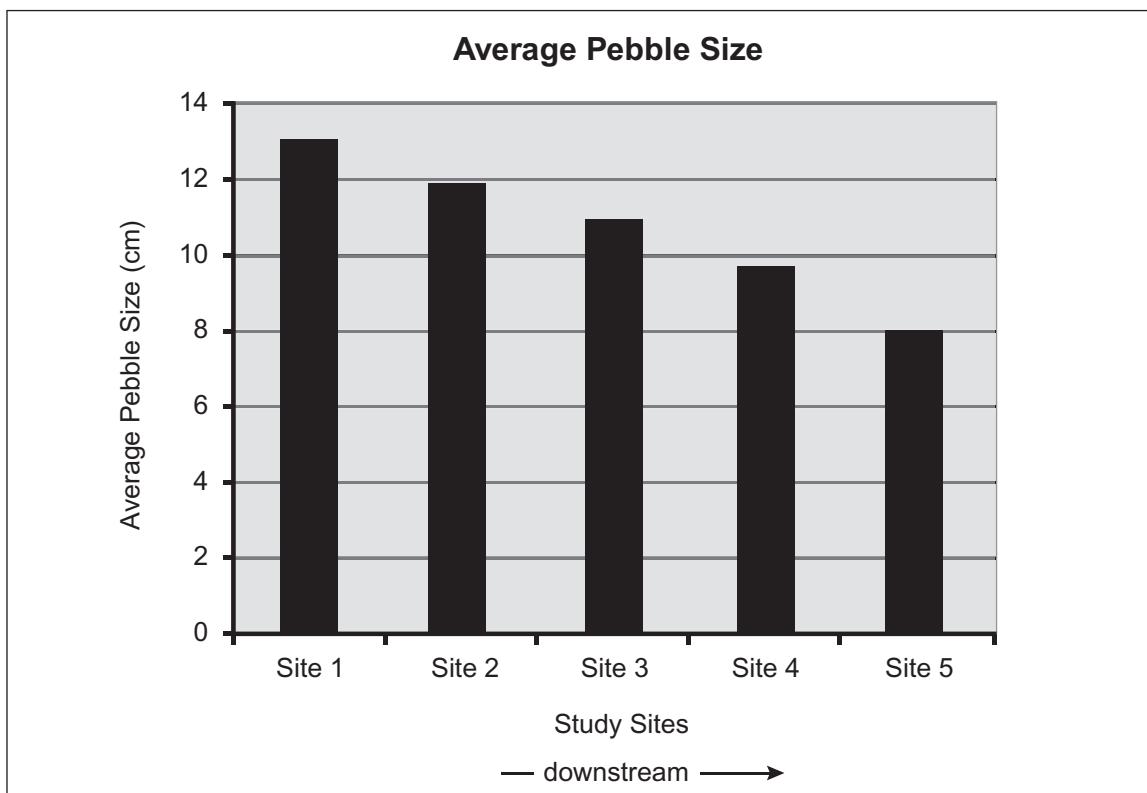
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[4]

Examiner Only	
Marks	Remark

(d) A field study was carried out on a river in Northern Ireland. Study **Fig. 3** which shows the average size of pebbles at each study site. Answer the questions which follow.

Examiner Only	
Marks	Remark



**Fig. 3**

(i) Using **Fig. 3** complete **Table 1**.

**Table 1**

	Site 1	Site 2	Site 3	Site 4	Site 5
Average size of pebble (cm)	13	11.75	11	9.5	

[1]

(ii) 1. Describe the changes in the size of pebbles as you go downstream.

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[2]

2. Explain why this change occurs. Give **one** reason in your answer.

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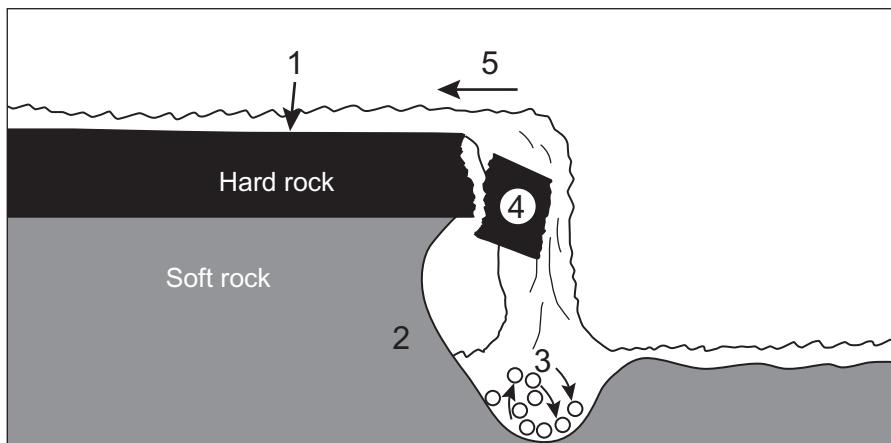
[3]

Examiner Only

Marks

Remark

(e) Study **Fig. 4** which shows a sketch of a waterfall. Answer the question which follows.



Source: Principal Examiner

Fig. 4

Complete **Table 2** by matching the correct statement to the number in **Fig. 4**. This will explain the formation of a waterfall. One has been completed for you.

Table 2

Statement	Number in Fig. 4
Erosion of softer rock causes undercutting	
The undercut rock collapses	
The river flows over a layer of hard rock	
Erosion leads to the formation of a plunge pool	
The position of the waterfall moves backwards	5

[4]

(f) (i) Some rivers are likely to flood. For a named river **within** the British Isles, describe **one** cause of flooding.

River \_\_\_\_\_ [1]

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[3]

(ii) Rivers which flood have to be managed carefully. Complete **Fig. 5** by sorting the river management strategies into hard or soft engineering methods. Two have been completed for you.

**Soft Engineering**



Dams  
Planting trees  
Flood walls  
Straightening the river  
Embankments  
Land-use zoning

**Hard Engineering**



Fig. 5

[4]

(g) For a named river outside the British Isles, describe **one** method used to reduce the flood hazard.

River \_\_\_\_\_ [1]

Method \_\_\_\_\_

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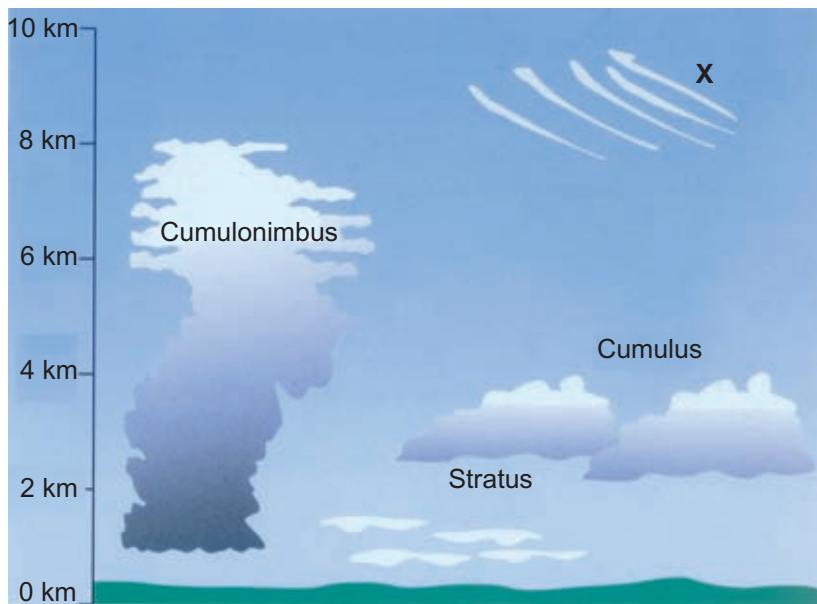
 [3]

Examiner Only	
Marks	Remark

**Theme B: Our Changing Weather and Climate**

2 (a) Study **Fig. 6** which shows the main types of clouds. Answer the questions which follow.

Examiner Only	
Marks	Remark



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**Fig. 6**

(i) Name the type of cloud at X.

\_\_\_\_\_

[1]

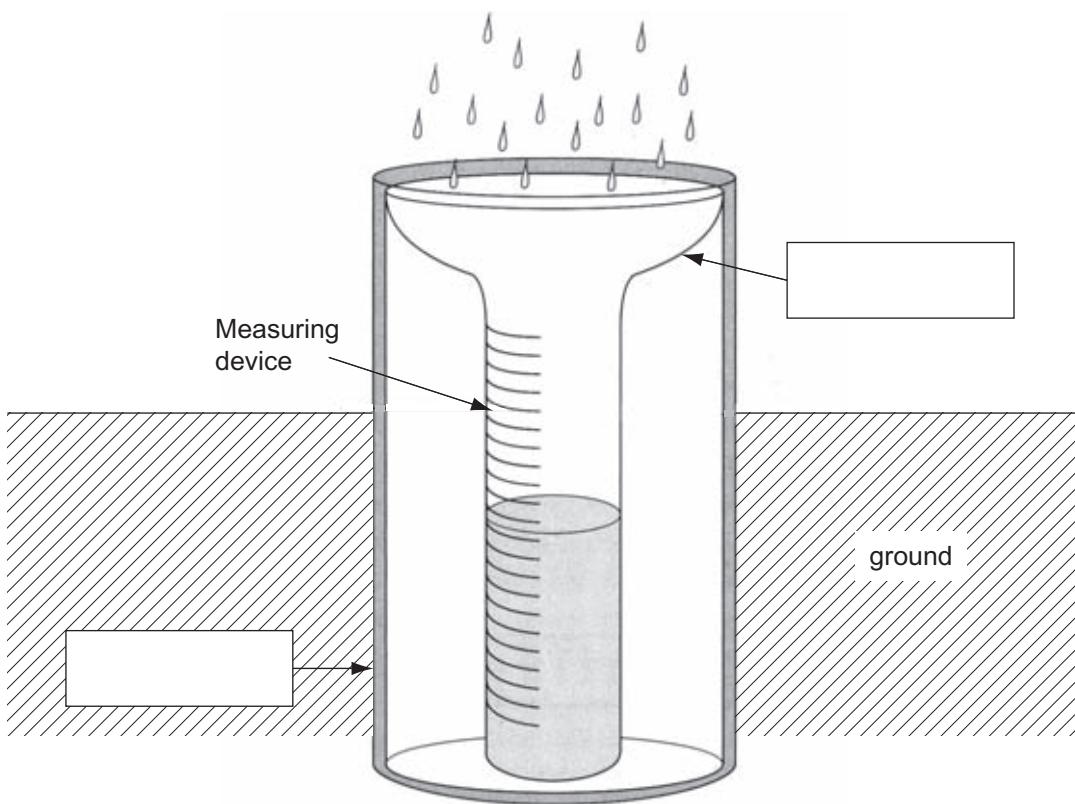
(ii) Name the type of cloud associated with thunderstorms.

\_\_\_\_\_

[1]

(b) Study **Fig. 7** which shows a rain gauge.

Examiner Only	
Marks	Remark



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**Fig. 7**

(i) Complete the diagram by adding the following labels. One has been completed for you.

- Funnel
- Cylinder

[2]

(ii) Explain why the rain gauge must be sited well away from buildings and trees.

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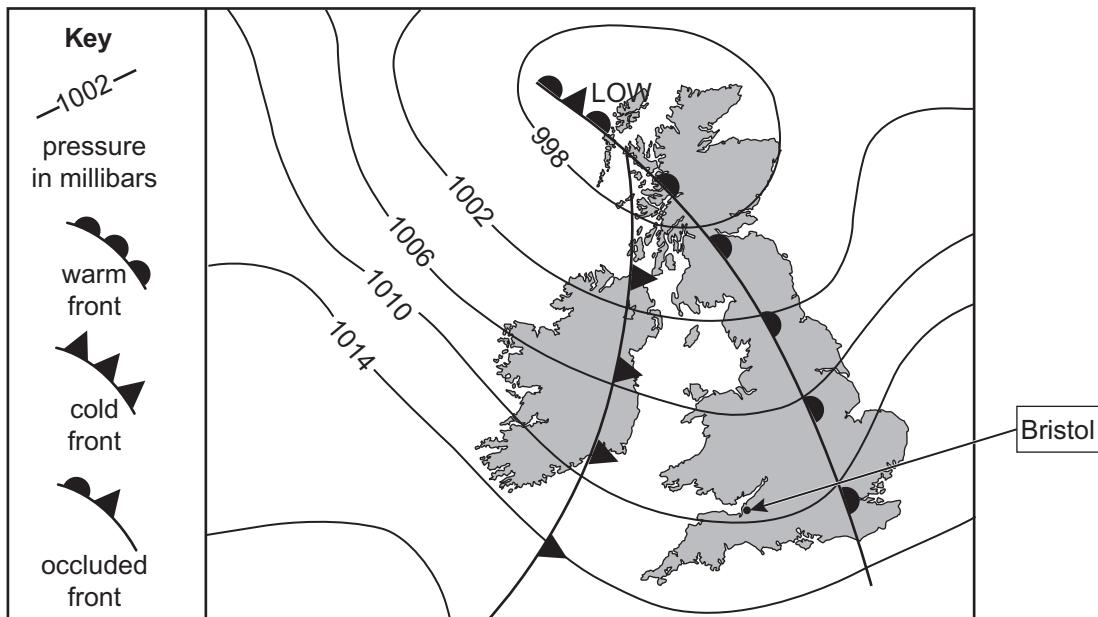


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[3]

(c) Study **Fig. 8** which shows information about a weather system. Answer the questions which follow.

Examiner Only	
Marks	Remark



**Fig. 8**

(i) Name the lines shown on this weather map joining places with equal pressure.

\_\_\_\_\_ [1]

(ii) State the weather system located over the British Isles. Underline your answer in the list below.

**Anticyclone**

**Front**

**Depression** [1]

**(iii)** The temperature in Bristol will change as this weather system passes.

1. Describe how the temperature will change.

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[1]

2. Explain why the temperature will change.

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[3]

Examiner Only	
Marks	Remark

(d) Weather affects both people and the economy. Complete **Table 3** by writing People or Economy in the last column. One has been completed for you.

[3]

Examiner Only

Marks

Remark

**Table 3**

Weather element	Effect	People or Economy
strong winds  © Reuters/Henry Romero 2 September 2009	Can cause high waves and stormy seas so ferry crossings may be cancelled. As a result goods cannot be transported to the shops.	
weather element warm, sunny weather	Increases the temperature so that sales of goods such as ice-cream and barbecues rise.	Economy
frost  © Darren Ciolfi-Leach	In winter frost helps to break up the soil making it cheaper to cultivate fields in the early spring.	
heavy rain  © FreeFoto.com Ltd	Can cause river levels to rise and overflow their banks, so flooding homes and gardens.	

(e) Volcanic activity is a natural cause of climate change.



© U S Geological Survey/Jack Lockwood

**Fig. 9** A volcano erupting in Indonesia

(i) Describe how a volcanic eruption may change the climate.

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[4]

(ii) For a named country you have studied, describe **one** positive and **one** negative effect of climate change.

Country \_\_\_\_\_ [1]

Positive effect

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[2]

Negative effect

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[2]

Examiner Only	
Marks	Remark

## Theme C: The Restless Earth

3 (a) Study **Table 4** which gives information about three rocks. Answer the questions which follow.

**Table 4**

Picture of rock	Simple characteristics of rock	Name of rock	Examiner Only
Marks	Remark		
	Rough texture, hard, speckled igneous rock.		
	Quite hard sedimentary rock with a rough feel.	sandstone	
	Dark grey metamorphic rock with layers which split easily.		

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(i) Complete **Table 4** by writing in the names of rocks which you have studied. [2]

Choose your answers from the list below

marble

slate

granite

basalt

(ii) Choose **one** of the rocks from **Table 4** and explain how it was formed.

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[3]

(b) Order the following statements to show how a lava plateau forms.  
One has been completed for you.

Examiner Only	
Marks	Remark
Lava pours out through fissures.	
Pressure brought magma to the earth's crust.	
Weathering occurs along the edges of the plateau, making it smaller over time.	4
The lava cools to form a wide flat plateau made of basalt.	

[3]

(c) Study **Fig. 10** which gives some information about the earthquake which affected Haiti in 2010. Answer the questions which follow.

Examiner Only	
Marks	Remark

## Haiti Earthquake was not a surprise.

N  
↑

Almost 200 000 died and there was caused widespread damage when an earthquake with a magnitude of 7 struck the LEDC country of Haiti on 12 January 2010.

The earthquake happened where two tectonic plates slide past each other.

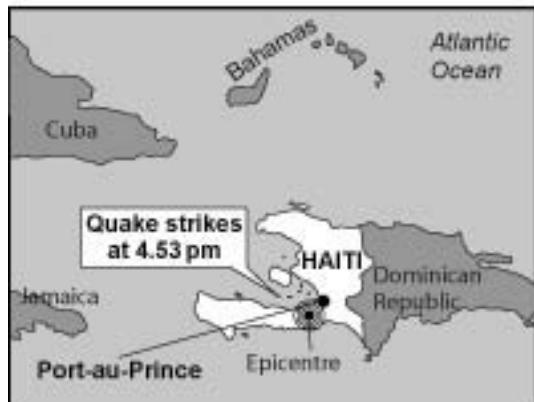


Fig. 10

(i) Name the group of islands to the north of Haiti.

\_\_\_\_\_ [1]

(ii) Underline the type of plate margin found near Port-au-Prince.

**Constructive**

**Destructive**

**Conservative** [1]

(iii) State the meaning of the term **earthquake**.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [2]

(iv) Suggest **two** reasons why the earthquake in Haiti caused so many deaths.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [2]

(v) Explain why plates move.

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[4]

(d) Describe the cause and **two** impacts of an earthquake you have studied which happened in the British Isles.

Location of earthquake in British Isles

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[1]

Cause of earthquake

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[2]

Impacts

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[4]

**THIS IS THE END OF THE QUESTION PAPER**

Examiner Only	
Marks	Remark

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