



Rewarding Learning

Centre Number

71

Candidate Number

General Certificate of Secondary Education
2013

Geography

Unit 1:
Understanding Our Natural World
Foundation Tier

[GGG11]



TUESDAY 4 JUNE, AFTERNOON

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.

INFORMATION FOR CANDIDATES

The total mark for this paper is 108.

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 Question 3(d)(ii).

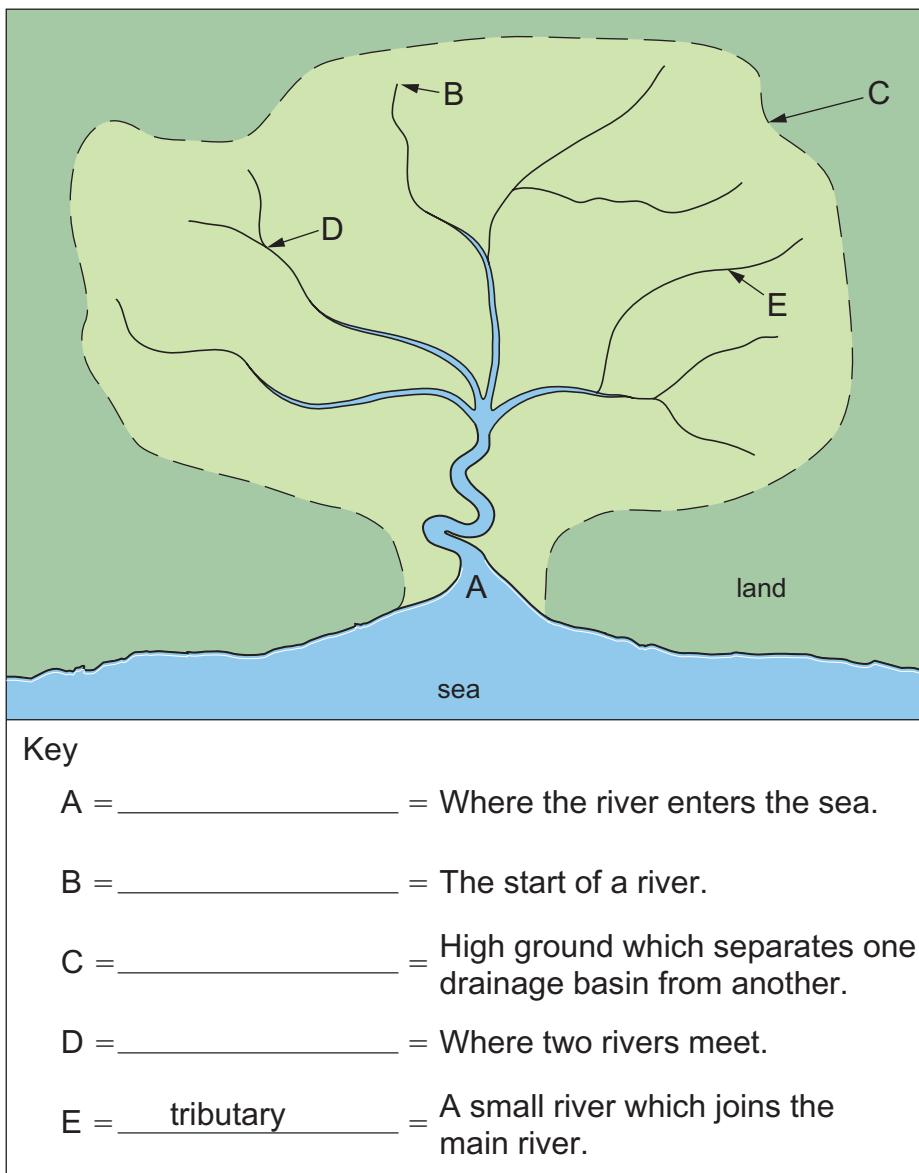
Spelling, punctuation and the accurate use of grammar will be assessed in questions 1(d) and 1(f)(ii).

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

Theme A: The Dynamic Landscape

1 (a) Study **Fig. 1** which shows a drainage basin. Answer the questions which follow.

Examiner Only	
Marks	Remark



Source: Principal Examiner

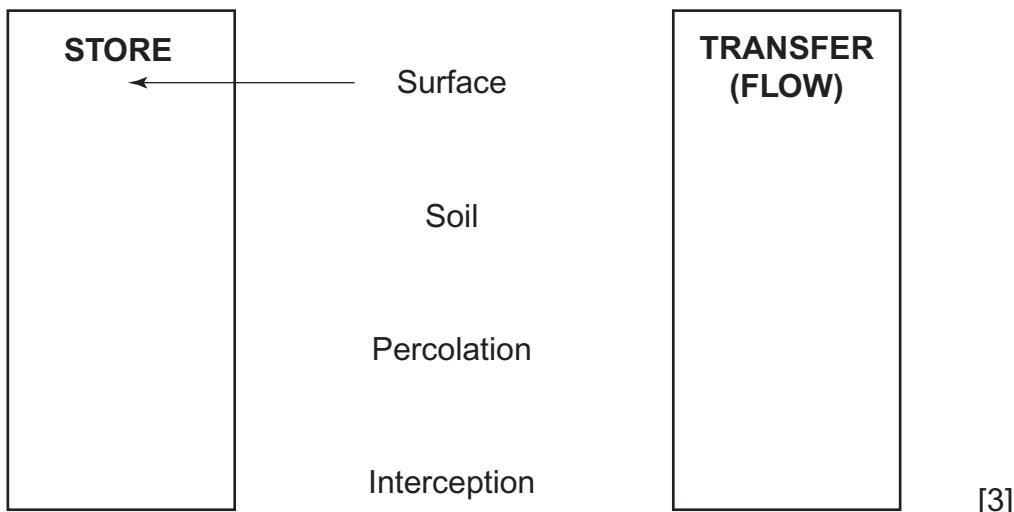
Fig. 1

(i) Complete the key for **Fig. 1** by labelling features A–D. Choose your answers from the list below. One has been completed for you.

flooding **confluence** **watershed**
mouth **source**

[4]

(ii) Draw arrows to sort the following parts of a drainage basin as stores or transfers (flows). One has been completed for you.



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

[2]

(b) (i) State **two** reasons why a river might deposit material.

1. _____

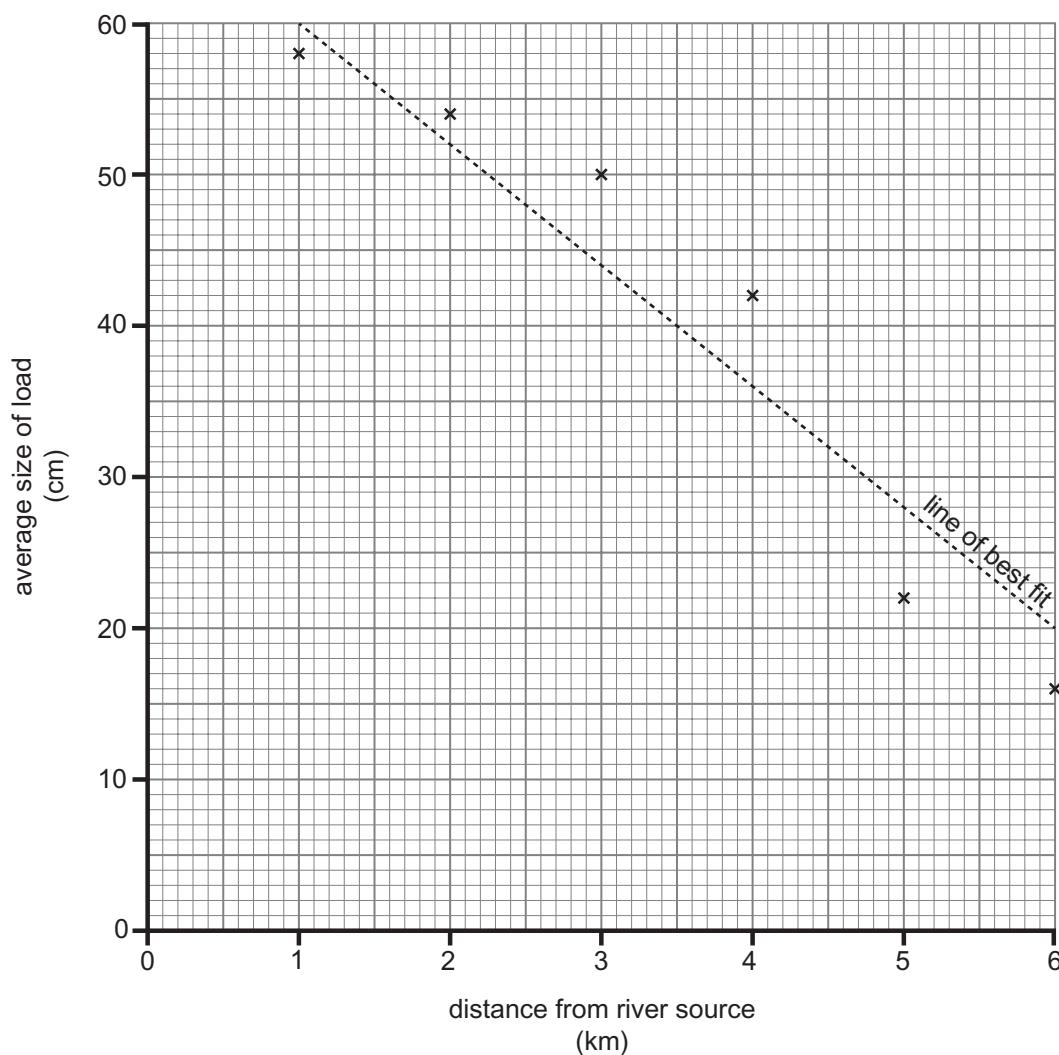
2. _____ [2]

(ii) Name **any two** features which are made by rivers.

1. _____

2. _____ [2]

(c) Study **Fig. 2** which shows how load size varies along the Colin River in Belfast. Answer the questions which follow.



Source: Principal Examiner

Fig. 2

Examiner Only	
Marks	Remark

(i) Underline the correct word in each sentence below which describes how load size varies along the Colin River. One has been completed for you.

- The load is the material / **water** carried by a river.
- As distance increases from the source load size **increases** / **decreases**.
- The largest average size of load in this river is **54** / **58** cm.
- The smallest load measured was found **5** / **6** km from the source.
- Load size reduces rapidly between **1–2** / **4–5** km from the source.

[4]

(ii) Underline the **two** types of erosion in the list below which could explain the variation seen in **Fig. 2**.

Hydraulic Pressure **Abrasion** **Weathering** **Attrition** [2]

(d) With reference to a river in the British Isles you have studied, describe and explain **one** physical and **one** human cause of a flood on your named river.

Name of river _____ [1]

Physical cause of the flood

Human cause of the flood

[6]

Spelling, punctuation and accurate use of grammar [4]

Examiner Only	
Marks	Remark

(e) Coasts are shaped by waves. Underline the **two** main types of wave in the list below.

Open

Destructive

Constructive

Flat

[2]

Examiner Only	
Marks	Remark

(f) Study **Fig. 3** which shows a labelled photograph of a coastal spit in Alaska called Homer Spit. Answer the questions which follow.



Source: Alaska ShoreZone Program NOAA/NMFS/AKFSC; Courtesy of Mandy Lindeberg, NOAA/NMFS/AKFSC

Fig. 3

(i) Identify the three land uses (X, Y and Z) shown in **Fig. 3**. Choose your answers from the list below.

Residential

Industry

Transport

Tourism

X _____

Y _____

Z _____

[3]

(ii) Explain how longshore drift forms a spit.

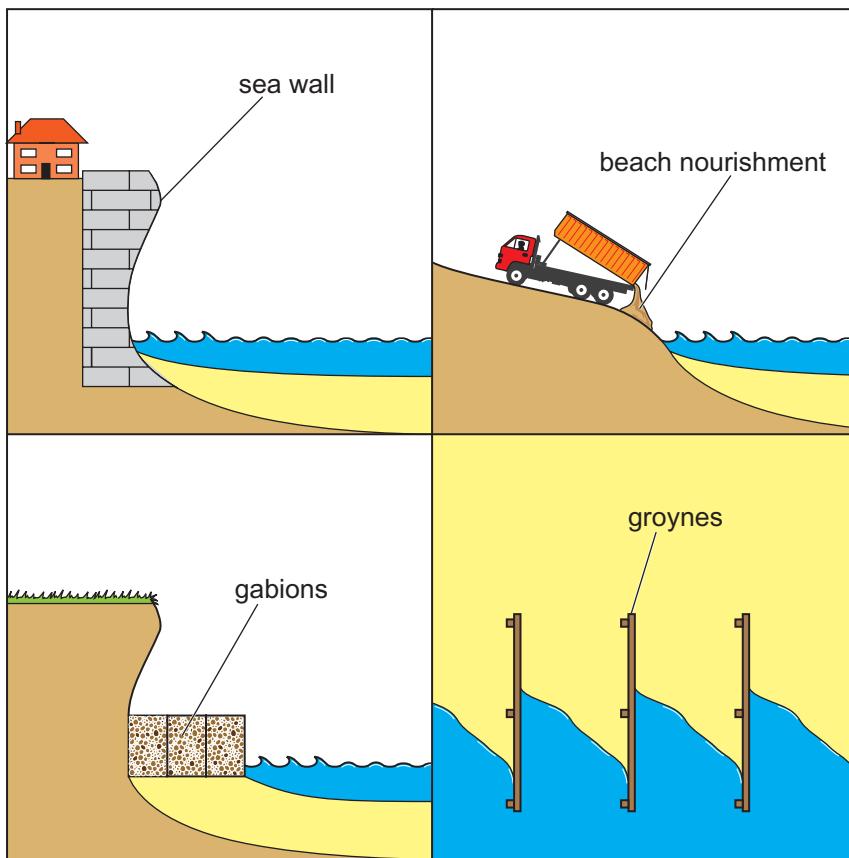
. [5]

Spelling, punctuation and accurate use of grammar [4]

Examiner Only	
Marks	Remark

(g) Study **Fig. 4** which shows four methods of coastal defence. Answer the questions which follow.

Examiner Only	
Marks	Remark



Source: Principal Examiner

Fig. 4

(i) Choose **two** of the coastal defences named in **Fig. 4** and explain how each works.

1. _____

 _____ [3]

2. _____

 _____ [3]

(ii) State **two** reasons why an area might need coastal defences.

1. _____

2. _____ [2]

Examiner Only

Marks

Remark

(iii) Suggest why beach nourishment might encourage tourism.

[2]

(h) Name an area in the British Isles that has a coastal management strategy. Explain how well **one** method used to protect the coast there could last in the long term.

Area with coastal management _____ [1]

How well your chosen method could last in the long term.

[3]

Theme B: Our Changing Weather and Climate

2 (a) Study **Fig. 5** which shows a simple weather forecast about an anticyclone that is over Northern Ireland in July. Answer the questions which follow.

(i) Draw a line to match up each element of the weather forecast in **Fig. 5** with one instrument used to create that part of the forecast.

Weather Forecast	Instruments used to create this forecast
The temperature will be a very warm 28°C.	• WIND VANE
The wind speed will be calm.	• THERMOMETER
Warm air will come from a south-easterly direction.	• ANEMOMETER
There will be no rain.	• RAIN GAUGE

[4]

Fig. 5

(ii) Name **one** other aspect of the weather which can be measured.

[1]

(iii) Underline the air mass which is likely to be responsible for the weather described in **Fig. 5**.

POLAR CONTINENTAL**TROPICAL CONTINENTAL****POLAR MARITIME**

[1]

(iv) Anticyclones are weather systems which affect the U.K. Underline the correct word in each of the following sentences about anticyclones. One has been completed for you.

- Winds in an anticyclone blow clockwise / **anticlockwise**.
- Anticyclones are **low** / **high** pressure systems which can occur at any time of the year.
- In winter anticyclones bring **warm** / **cold** temperatures.
- Isobars are **close together** / **far apart** in an anticyclone.
- Skies have **lots of** / **few** clouds during an anticyclone. [4]

(b) Study **Table 1** which shows the increase in global air temperature between 1861 and 2020. Answer the questions which follow.

Table 1

Year	Increase in global air temperature (°C)
1861–1900	+ 0.1
1901–1940	+ 0.2
1941–1980	+ 0.15
1981–2020 (estimated)	+ 0.35

(i) Underline the time period in the list below that saw the smallest increase in global air temperature.

1981–2020 1861–1900 1901–1940

[1]

(ii) State the meaning of the term **global warming**.

[2]

(iii) Explain how burning fossil fuels can cause climate change.

[3]

(iv) Explain **one** effect climate change might have on a country you have studied.

Name of country _____ [1]

Effect of climate change

[3]

Examiner Only	
Marks	Remark

(c) Study **Fig. 6** which shows some cities where international agreements on climate change have been discussed. Answer the questions which follow.

Examiner Only	
Marks	Remark



Fig. 6

(i) Using **Fig. 6** state the city where the 2011 international agreement on climate change was discussed.

[1]

(ii) Why is it difficult for countries to work together to deal with climate change? You should give **two** reasons in your answer.

[4]

Theme C: The Restless Earth

3 (a) Study **Fig. 7** which shows some rock types. Answer the questions which follow.

Examiner Only	
Marks	Remark

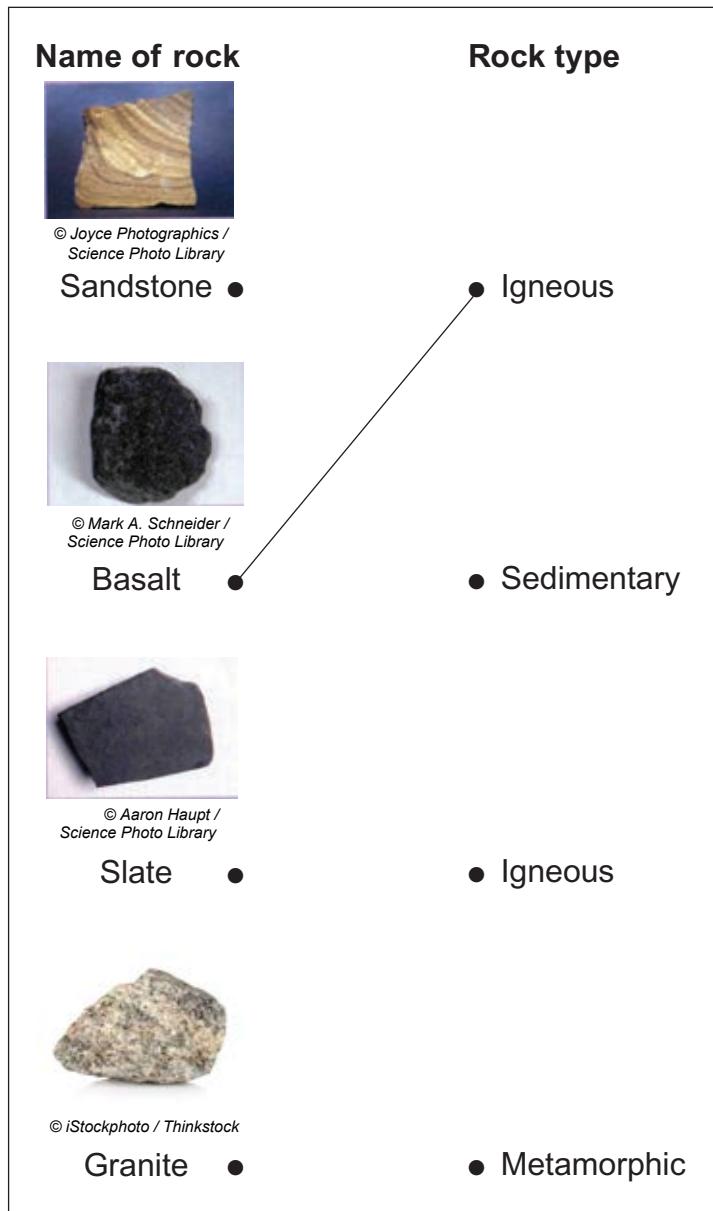


Fig. 7

(i) Complete **Fig. 7** by drawing lines to link the name of each rock to its rock type. One has been completed for you. [3]

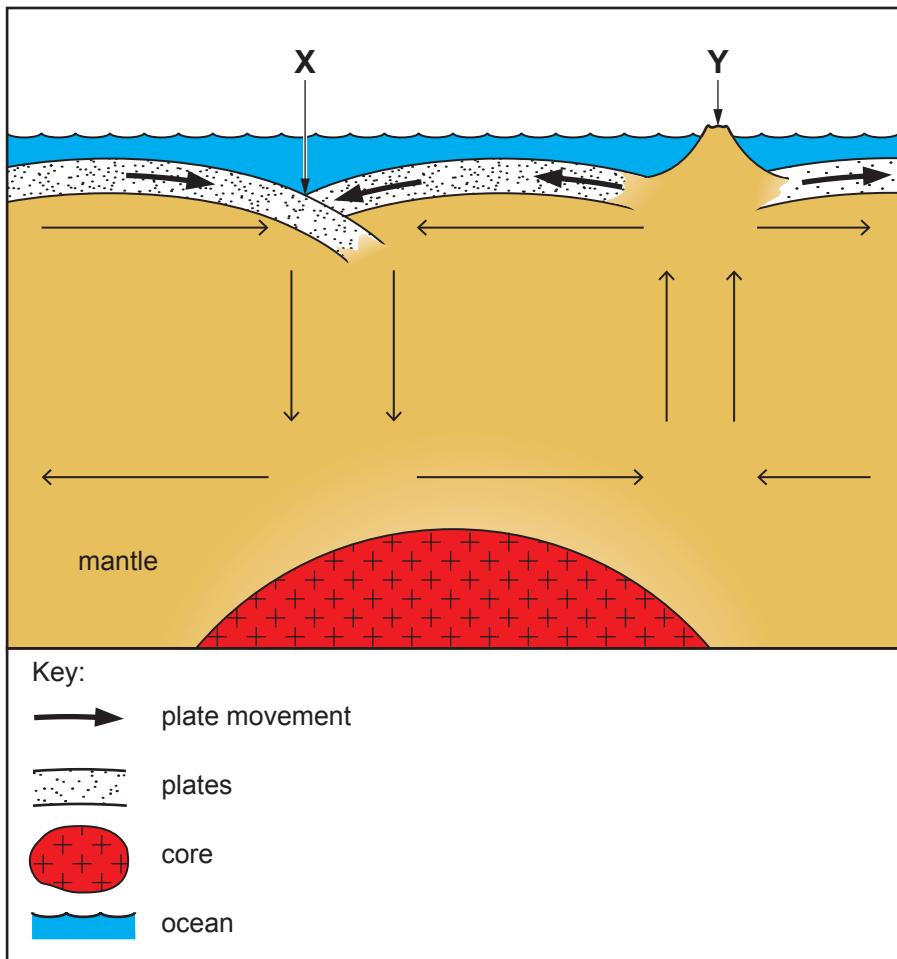
(ii) Number the following statements (1 to 4) in the correct order to explain how basalt is formed. One has been completed for you.

Examiner Only	
Marks	Remark
2	

[3]

(b) Study **Fig. 8** which shows part of the earth's structure. Answer the questions which follow.

Examiner Only	
Marks	Remark



Source: Principal Examiner

Fig. 8

(i) Name the features **X** and **Y**.

X _____

Y _____

[2]

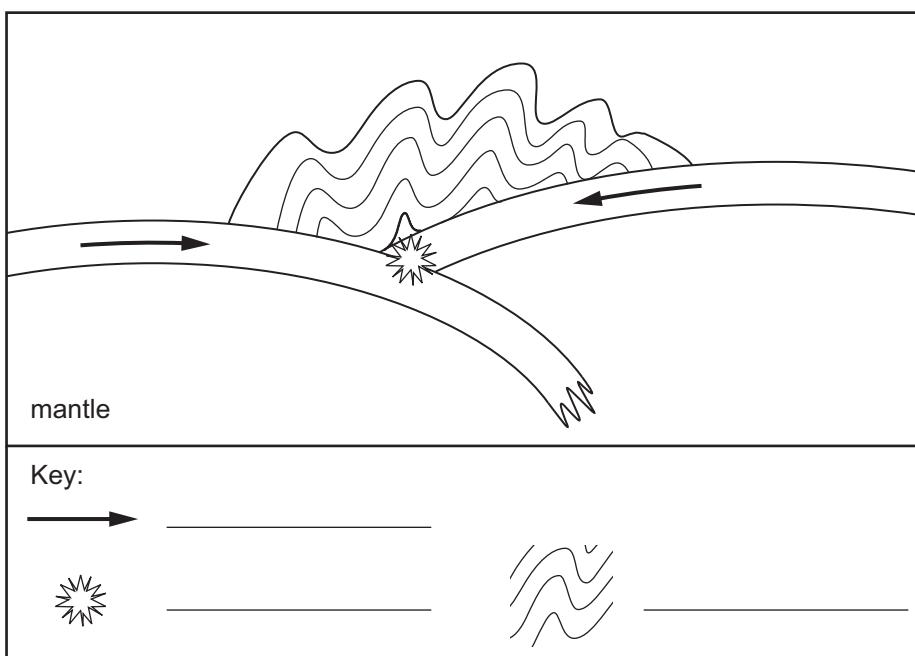
(ii) Use **Fig. 8** to help explain how plates move.

[3]

(c) Study **Fig. 9** which shows how fold mountains such as the Himalayas form. Answer the question which follows.



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Source: Principal Examiner

Fig. 9

Use the following labels to complete the key on **Fig. 9** to show how fold mountains are formed.

Plate movement **Fold mountains** **Earthquake focus** [3]

Examiner Only	
Marks	Remark

(d) Study **Fig. 10** which shows a tsunami. Answer the questions which follow.



© PA

Fig. 10

(i) State the meaning of the term **tsunami**.

[2]

(ii) Explain why an earthquake occurred in a LEDC which you have studied.

Name of LEDC _____ [1]

[3]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

(e) Study **Fig. 11** which shows some measures which may be put in place to reduce the number of deaths in an earthquake in a MEDC. Answer the question which follows.



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Make buildings earthquake-proof

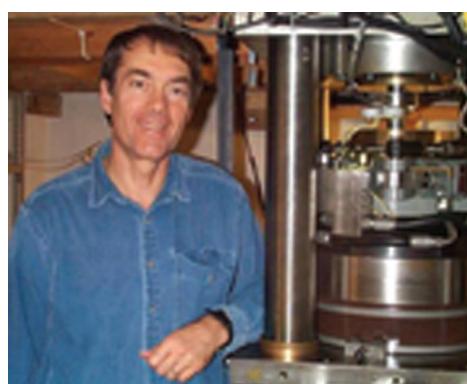


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Plan better emergency services

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Educate people about what to do when an earthquake happens



© Professor T Tullis

Improve the prediction of earthquakes

Fig. 11

Choose **two** measures from **Fig. 11** and explain how each helped to reduce the number of deaths in a named earthquake you have studied in a MEDC.

Name of earthquake in a MEDC _____ [1]

Strategy 1 _____

Strategy 2 _____

[4]

Examiner Only	
Marks	Remark

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