



Centre Number

71

Candidate Number

General Certificate of Secondary Education
2013

Geography

Unit 1:
Understanding Our Natural World
Higher Tier
[GGG12]



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.

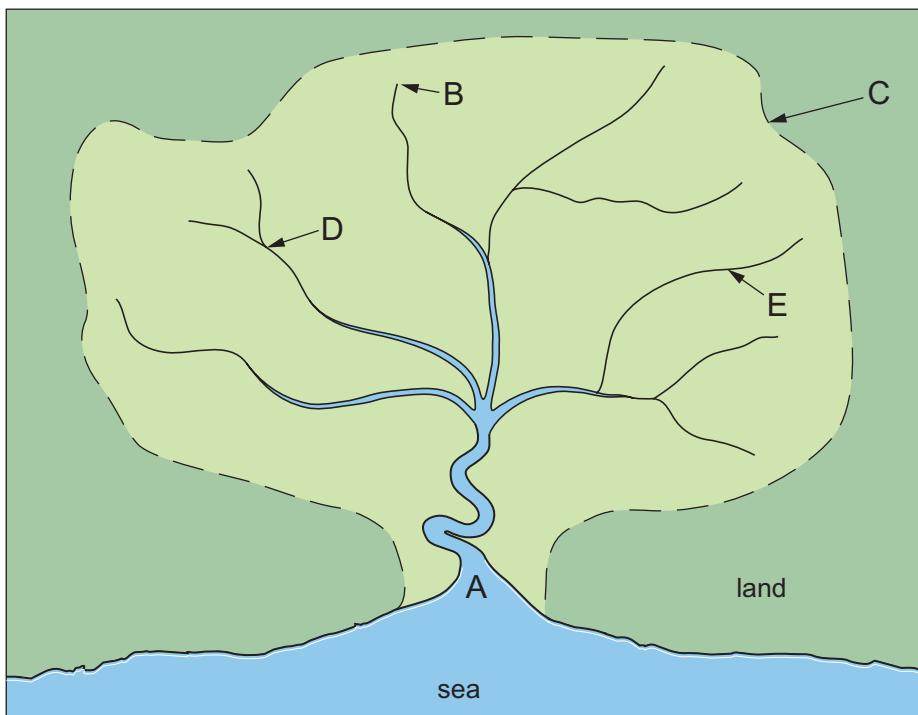
Quality of written communication will be assessed in Question 3(d).

Spelling, punctuation and the accurate use of grammar will be assessed in questions 1(i) and 2(c)(iii).

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.



Key

A = _____ = Where the river enters the sea.

B = _____ = The start of a river.

C = _____ = High ground which separates one drainage basin from another.

D = _____ = Where two rivers meet.

E = _____ = A small river which joins the main river.

Source: Principal Examiner

Fig. 1

(i) Complete the key for **Fig. 1** by labelling features A–E. [5]

(ii) Name **two** stores of water within the drainage basin system.

1. _____

2. _____ [2]

Examiner Only	
Marks	Remark

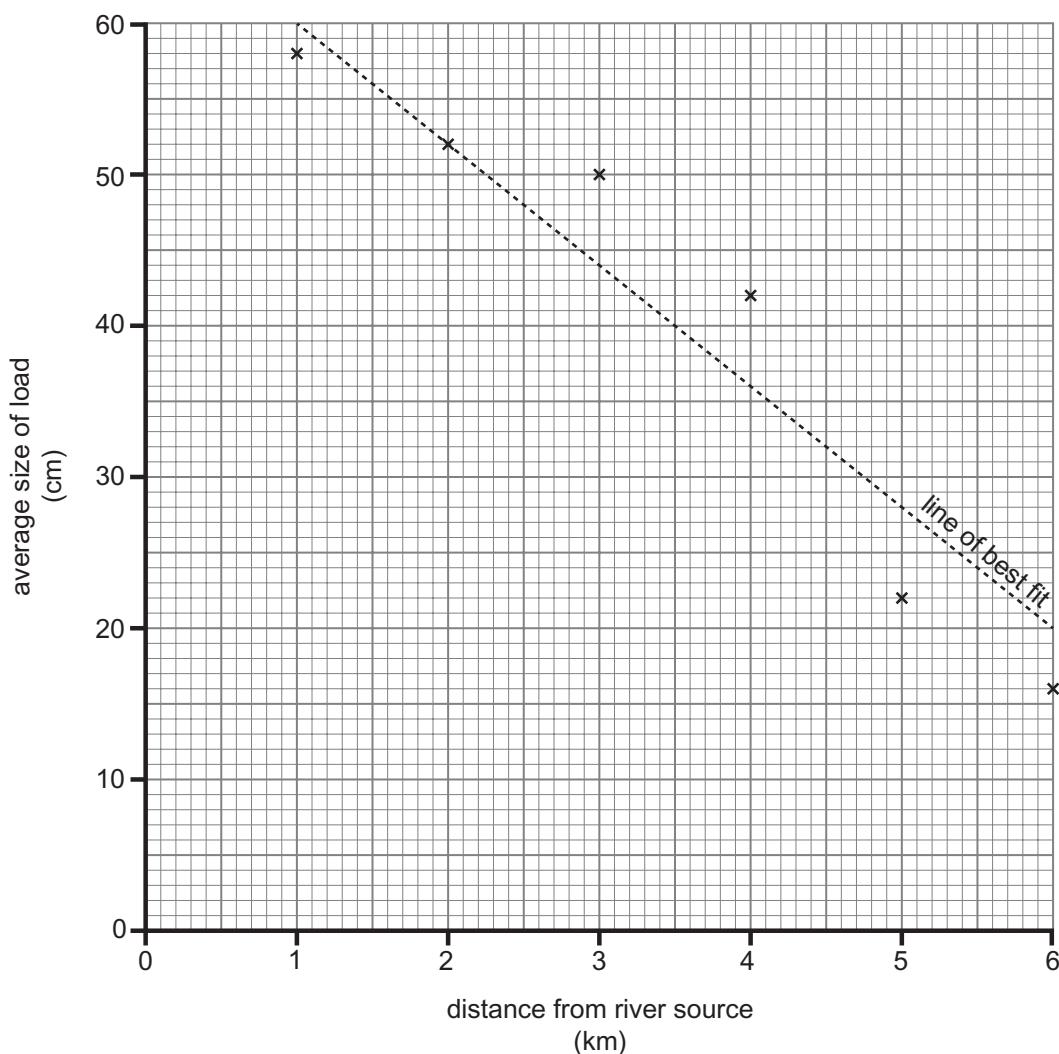
(iii) State the meaning of the term **infiltration**.

[2]

Examiner Only	
Marks	Remark

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

Examiner Only	
Marks	Remark



Source: Principal Examiner

Fig. 2

(i) Describe how load size varies along the Colin River.

[4]

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

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

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

1. _____

2. _____ [2]

(ii) Name **two** river features which are formed by the process of deposition.

1. _____

2. _____ [2]

(d) With reference to a river in the British Isles, explain the physical and human causes of a flood on your named river.

Name of river _____

Causes of the flood

[7]

Examiner Only	
Marks	Remark

(e) Coasts are shaped by waves. State **two** facts about constructive waves.

[2]

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

Examiner Only	
Marks	Remark



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

Fig. 3

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

Residential **Industry** **Transport** **Tourism**

X _____

Y _____

[2]

(g) Explain the formation of a spit.

[6]

(h) Explain the formation of a wave-cut platform.

[6]

Examiner Only	
Marks	Remark

(i) With reference to a case study from the British Isles, evaluate the sustainability of a coastal management strategy you have studied.

[8]

Spelling, punctuation and accurate use of grammar [4]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

Theme B: Our Changing Weather and Climate

2 (a) Study **Fig. 4** which shows a simple weather forecast about an anticyclone that is over Northern Ireland in July. Answer the questions which follow.

A. The temperature will be a very warm 28 °C.
 B. The wind speed will be calm.
 C. Warm air will come from a south-easterly direction.
 D. There will be no rain.

Fig. 4

(i) Using **Fig. 4** complete **Table 1** by writing in the names of the instruments that could be used to collect information on each of these elements of the weather forecast.

Table 1

Weather element	Instrument
A	
B	
C	
D	

[4]

(ii) State the name of the air mass that is most likely to be responsible for this weather.

[1]

(iii) Explain why there will be no rain.

[3]

Examiner Only	
Marks	Remark

(b) Weather forecasts are created by the Met Office in the U.K. They often rely on satellite images to help create them. Answer the questions which follow.



Courtesy: NASA

(i) Explain how satellites help to create a weather forecast.

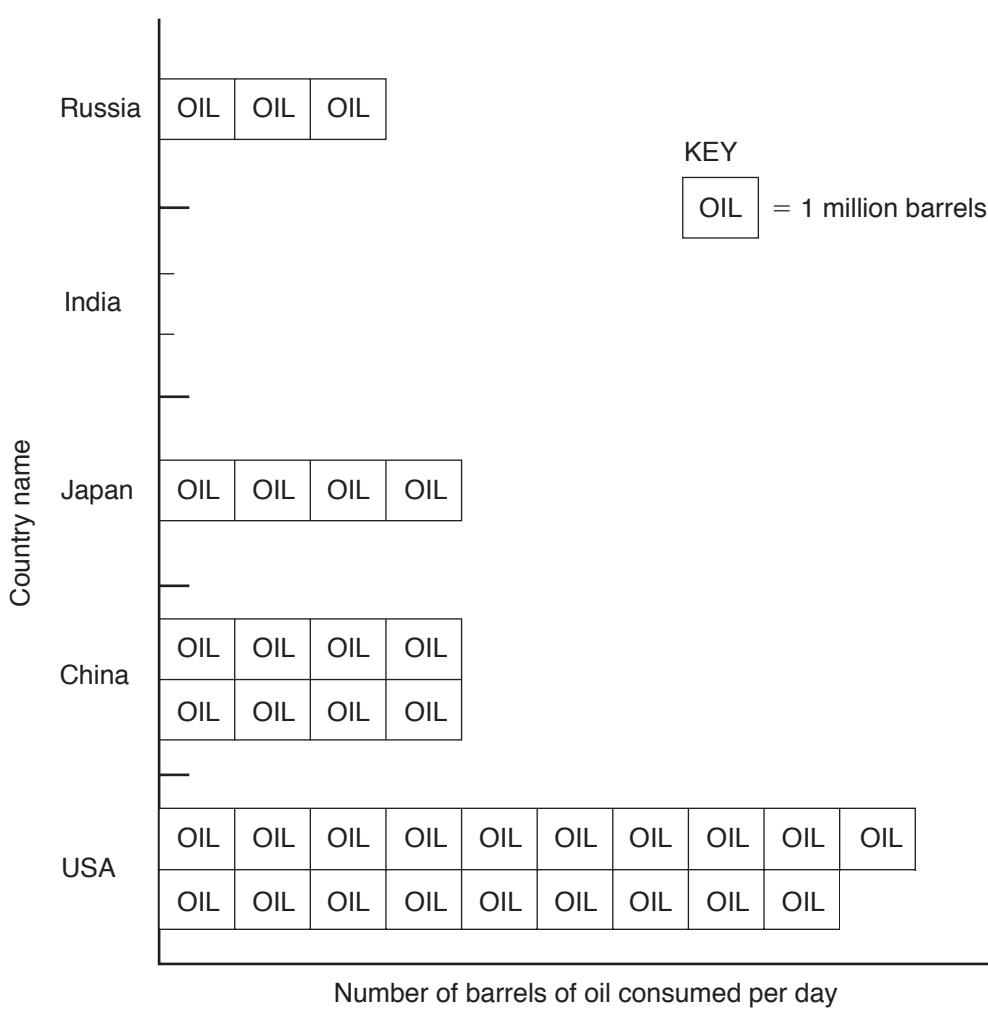
[3]

(ii) State the type of satellite which is fixed in the same location in space.

[1]

Examiner Only	
Marks	Remark

(c) Study **Fig. 5** which shows the number of barrels of oil consumed per day in a number of countries. Answer the questions which follow.

**Fig. 5**

(i) Complete **Fig. 5** by inserting the correct symbol for the number of barrels of oil consumed per day in India.

India = 3 million barrels

[1]

(ii) State the number of barrels of oil consumed per day in the USA.

[1]

(iii) With reference to a named country that you have studied, describe the likely effects of climate change on the society and economy of that country.

[6]

Spelling, punctuation and accurate use of grammar [4]

Examiner Only	
Marks	Remark

(d) Study **Fig. 6** which shows the 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 name of the city where the 2011 international agreement on climate change was discussed.

_____ [1]

(ii) Outline **two** challenges associated with securing international co-operation to deal with climate change.

[4]

Theme C: The Restless Earth

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

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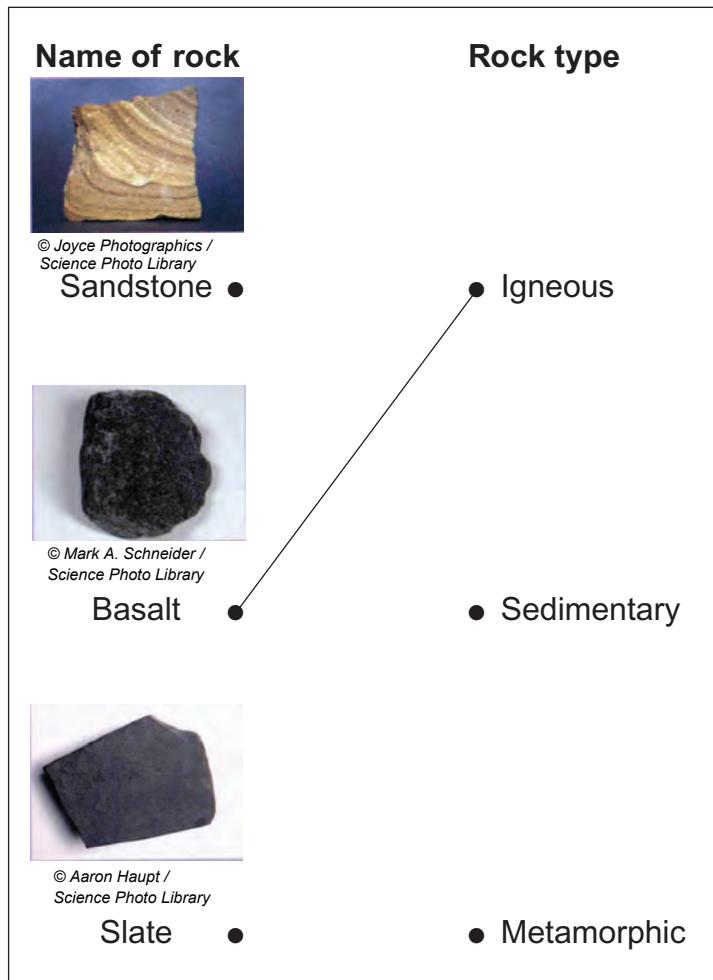


Fig. 7

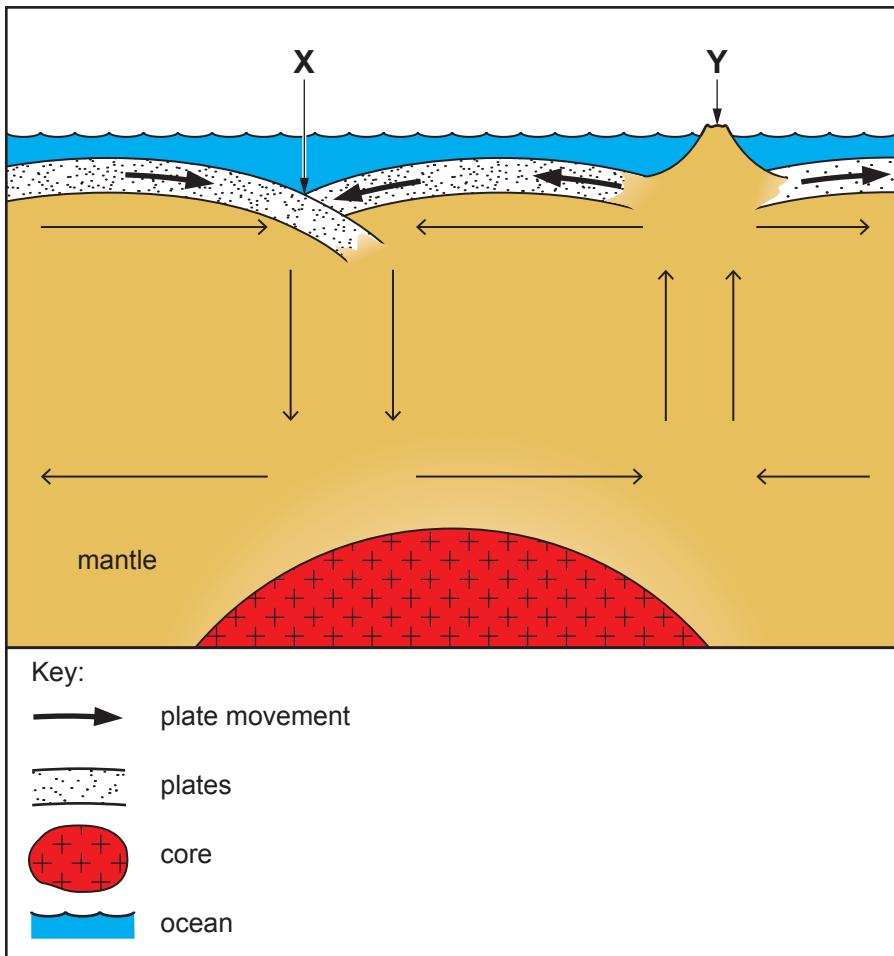
(i) Complete **Fig. 7** by matching the name of each rock to its rock type. One has been completed for you. [2]

(ii) Explain how basalt is formed.

[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 _____

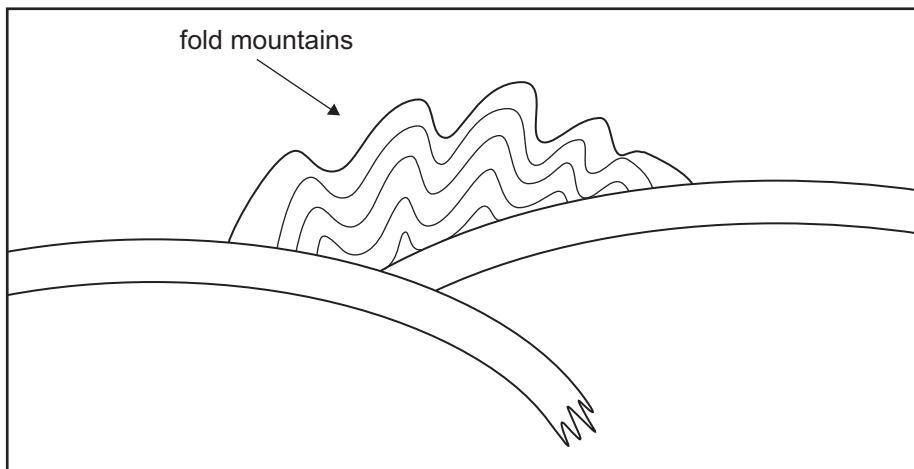
Y _____

[2]

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

[3]

(iii) Complete **Fig. 9** by drawing in arrows to show the direction of plate movement and mark the likely position of an earthquake focus with X.



[3]

Fig. 9

(iv) Name this type of plate boundary.

[1]

Examiner Only	
Marks	Remark

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



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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 _____

[3]

Examiner Only	
Marks	Remark

(d) For an earthquake in a **MEDC** which you have studied, evaluate the success of the precautions put in place before the earthquake happened. Refer to **two** precautions in your answer.

Name of MEDC _____

[6]

THIS IS THE END OF THE QUESTION PAPER

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Marks	Remark

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