



Centre Number

71	
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Candidate Number

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General Certificate of Secondary Education  
2013

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## Geography

Unit 1:  
Understanding Our Natural World

Higher Tier

[GGG12]

MV18

TUESDAY 4 JUNE, AFTERNOON

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### TIME

1 hour 30 minutes, plus your additional time allowance.

### 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 at the end of each question indicate the marks awarded to each question or part question.

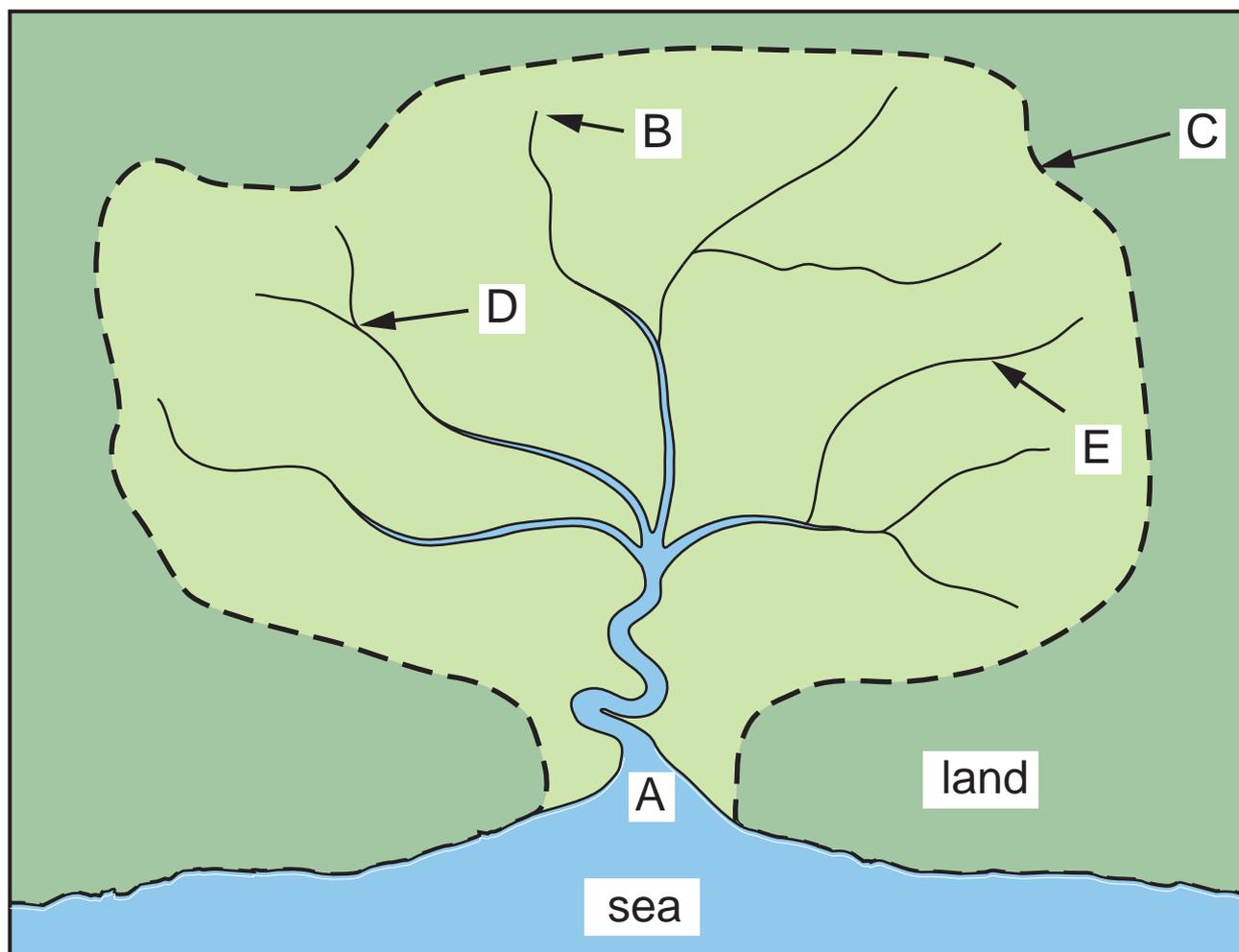
Quality of written communication will be assessed in Question **3(d)**.

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

## Theme A: The Dynamic Landscape

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

**Fig. 1**



### 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.

(i) Complete the key for **Fig. 1** on page 2 by labelling features A–E. [5]

(ii) Name **two** stores of water within the drainage basin system. [2]

1. \_\_\_\_\_

2. \_\_\_\_\_

(iii) State the meaning of the term **infiltration**. [2]

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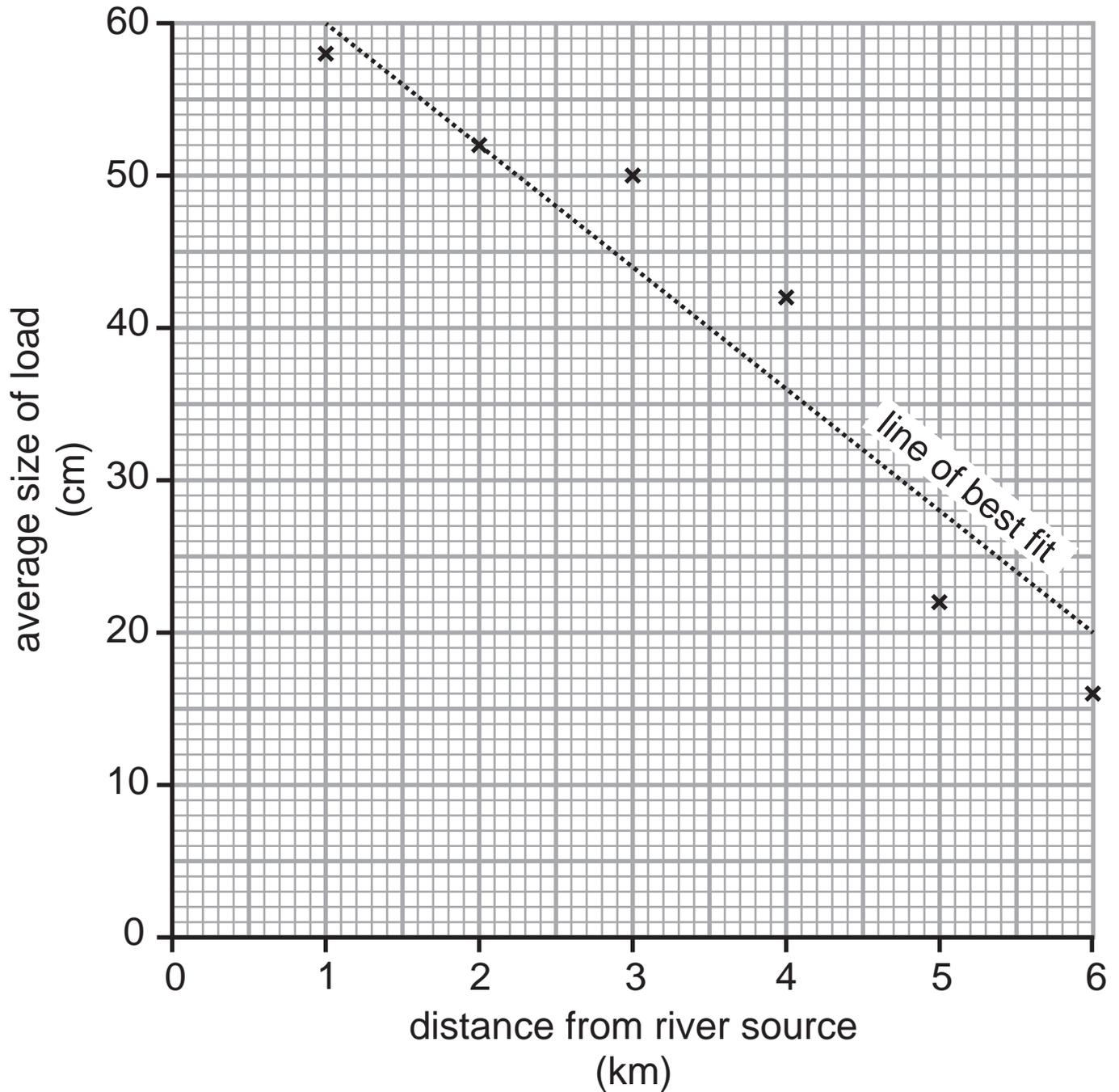
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- (b) Study **Fig. 2** which shows how load size varies along the Colin River in Belfast. Answer the questions which follow.

**Fig. 2**



(i) Describe how load size varies along the Colin River.  
[4]

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(ii) Underline the **two** types of erosion in the list below which could account for the variation seen in **Fig. 2** on page 4. [2]

**Abrasion**

**Hydraulic Pressure**

**Weathering**

**Attrition**

(c) (i) State **two** reasons why a river might deposit material. [2]

1. \_\_\_\_\_

2. \_\_\_\_\_



(e) Coasts are shaped by waves. State **two** facts about constructive waves. [2]

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

**Fig. 3**



Identify the **two** land uses (**X** and **Y**) shown in **Fig. 3**. Choose your answers from the list below. [2]

**Residential    Industry    Transport    Tourism**

**X** \_\_\_\_\_

**Y** \_\_\_\_\_







## 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.

### Fig. 4

- 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.

- (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. [4]

**Table 1**

Weather element	Instrument
A	
B	
C	
D	

- (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]

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(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.



(i) Explain how satellites help to create a weather forecast. [3]

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(ii) State the type of satellite which is fixed in the same location in space. [1]

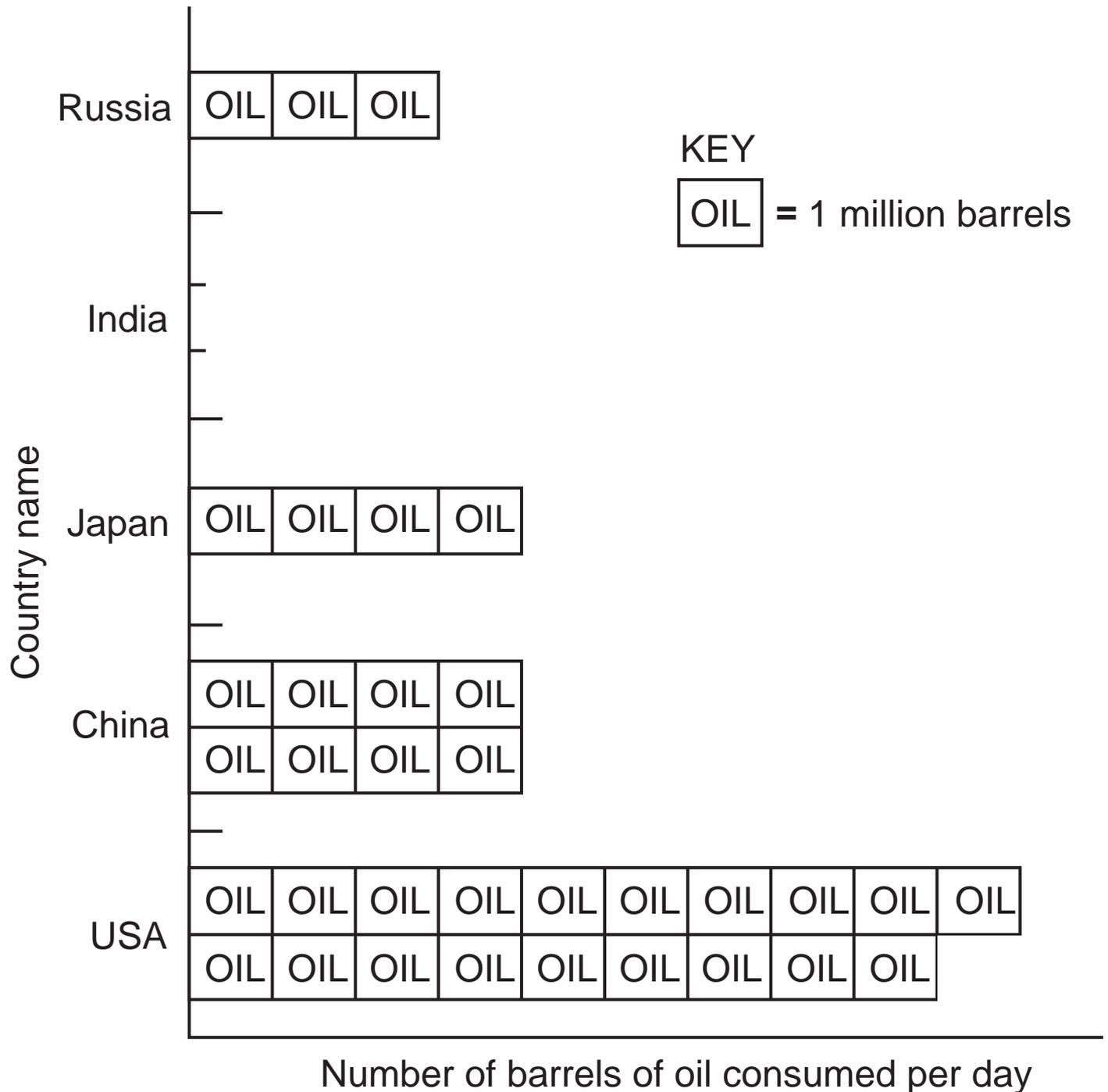
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**(Questions continue overleaf)**

(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**





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

**Fig. 6**



(i) Using **Fig. 6** state the name of the city where the 2011 international agreement on climate change was discussed. [1]

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(ii) Outline **two** challenges associated with securing international co-operation to deal with climate change. [4]

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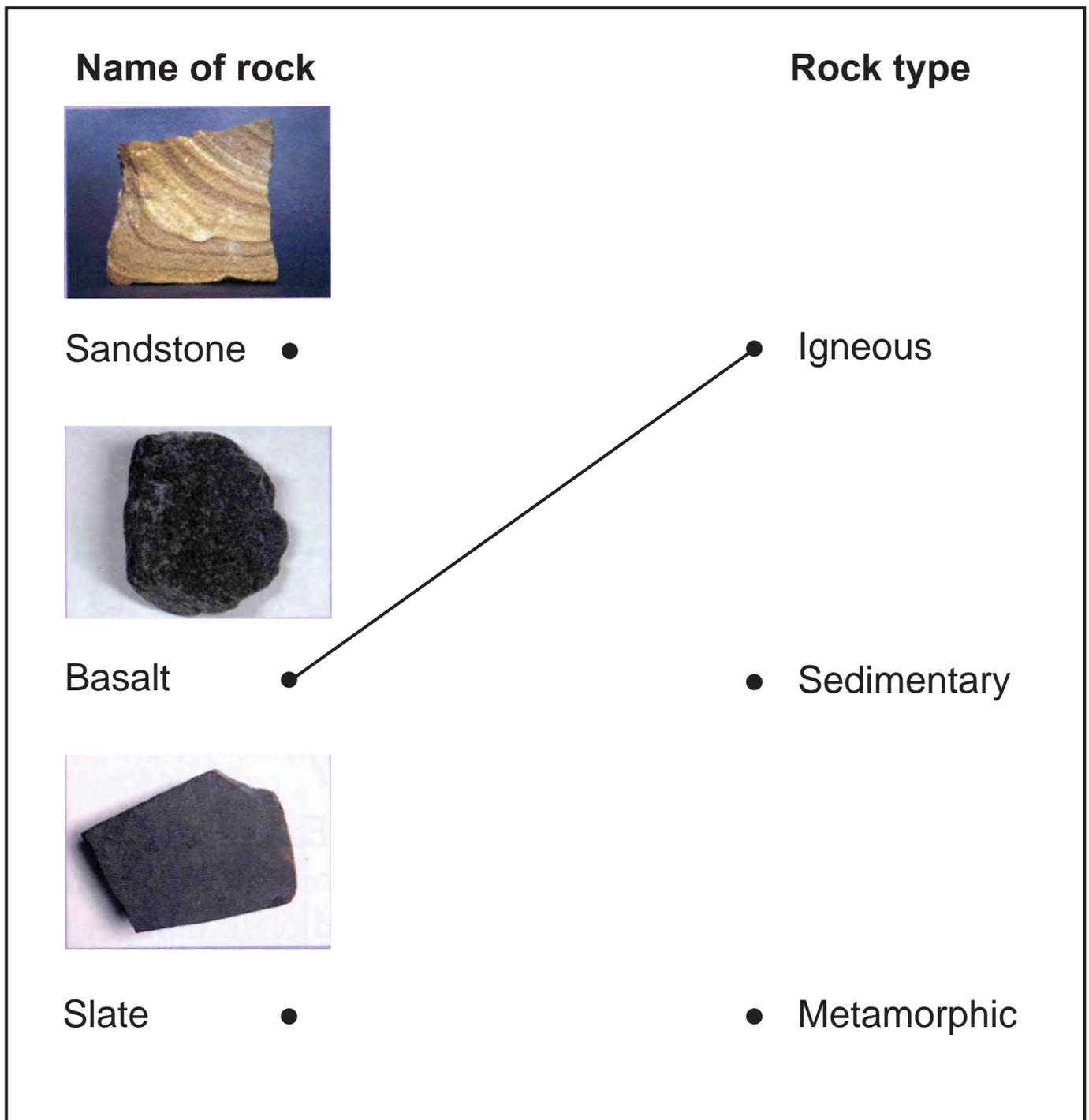
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## Theme C: The Restless Earth

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

**Fig. 7**



(i) Complete **Fig. 7** on page 20 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]

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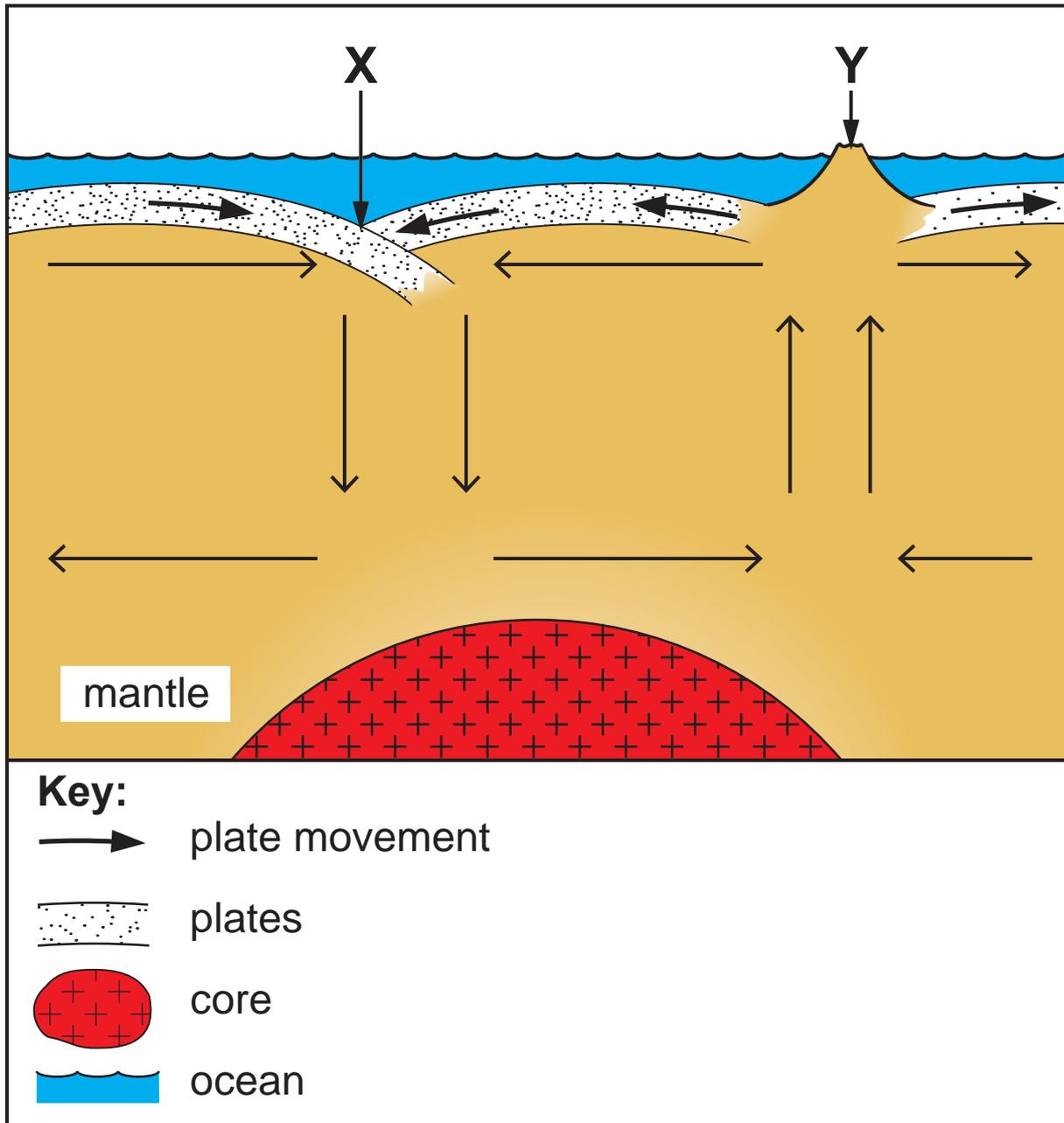
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(b) Study **Fig. 8** which shows part of the earth's structure. Answer the questions which follow.

**Fig. 8**



(i) Name the features **X** and **Y**. [2]

**X** \_\_\_\_\_

**Y** \_\_\_\_\_

(ii) Use **Fig. 8** on page 22 to help you to explain why plates move. [3]

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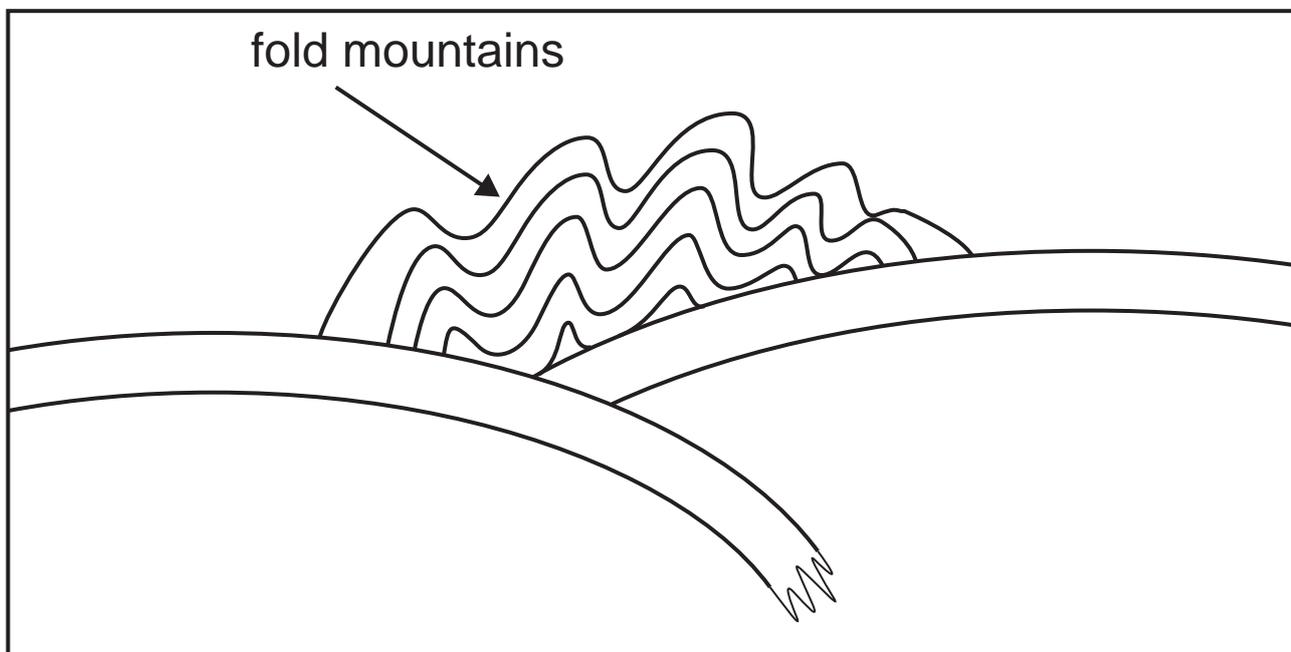
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(iii) Complete **Fig. 9** by drawing in arrows to show the direction of plate movement and mark the likely position of an earthquake focus with **X**. [3]

**Fig. 9**



(iv) Name this type of plate boundary. [1]

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

**Fig. 10**



(i) State the meaning of the term **tsunami**. [2]

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(ii) Explain why an earthquake occurred in a **LEDC** which you have studied. [3]

Name of LEDC \_\_\_\_\_

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**SOURCES**

Pg 2, Q1(a), Fig. 1 Drainage Basin, Source: Principal Examiner

Pg 4, Q1(b), Graph showing variable load size on Colin River, Source: Principal Examiner

Pg 8, Q1(f), Fig. 3, Photograph of Homer Spit, Source: Alaska ShoreZone Program NOAA/NMFS/AKFSC; Courtesy of Mandy Lindeberg, NOAA/NMFS/AKFSC

Pg 14, Q2(b), Image of weather satellite, Courtesy: NASA

Pg 18, Q2(d) fig 6, Photograph of hands on a globe, Source: © Don Hammond/Design Pics/Corbis

Pg 20, Q3(a)(i), Fig. 7, Photograph of a sandstone rock, Source: © Joyce Photographics / Science Photo Library

Pg 20, Q3(a)(ii), Fig. 7, Photograph of a basalt rock, © Mark A. Schneider / Science Photo Library

Pg 20, Q3(a)(iii), Fig. 7, Photograph of slate rock, © Aaron Haupt / Science Photo Library

Pg 22, Q3(b), Fig. 8, Diagram of part of earth's structure, Source: Principal Examiner

Pg 24, Q3(c), Photograph showing a Tsunami, Source: © PA

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Question Number	Marks
1	
2	
3	
<b>Total Marks</b>	

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