



Centre Number

71

Candidate Number

General Certificate of Secondary Education
2012

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



THURSDAY 14 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 answer 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(c)**, **1(h)(ii)** and **2(e)**.

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

Theme A: The Dynamic Landscape

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

(i) State the height of the land at its highest point in grid square 0177.

_____ metres [1]

(ii) State the straight line distance from the Visitor Centre at Swanage, (GR 036787) to the hotel at the end of the spit (GR 038871).

_____ km [2]

(iii) State the direction of Old Harry (GR 0582) from the World Heritage Site at Swanage (GR 0378).

_____ [1]

(iv) The southern coastline from GR 9876 to GR 0376 is lined with cliffs. Explain how hydraulic pressure erodes cliffs such as these.

_____ [3]

(v) Name the method of coastal protection found in GR 0379 and describe how it works.

Method _____ [1]

_____ [2]

(b) **Fig. 1** is part of a tourist brochure for Brownsea Island (GR 0188). Using map evidence state **three** activities suitable for holidaymakers on Brownsea Island.

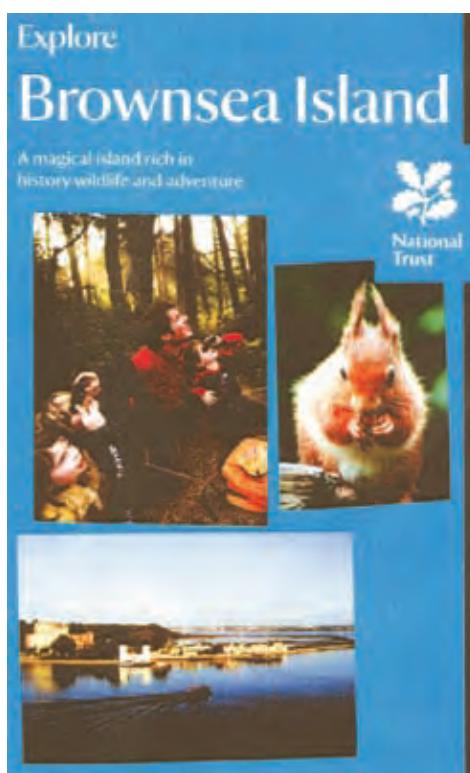


Fig. 1

_____ [3]

Examiner Only	
Marks	Remark

(c) Study **Fig. 2** a photograph of Old Harry (GR 0582). Old Harry is an example of a stack. Explain how a stack forms.



© Ian Woolcock/iStock/ Thinkstock

Fig. 2

[5]

Examiner Only	
Marks	Remark

(d) Study **Fig. 3** which shows how some people use the coast. Answer the questions which follow.



© Gordon Smith

Fig. 3

(i) State **one** human activity shown at the coast in **Fig. 3**.

_____ [1]

(ii) State **one** other use made of the coast by people.

_____ [1]

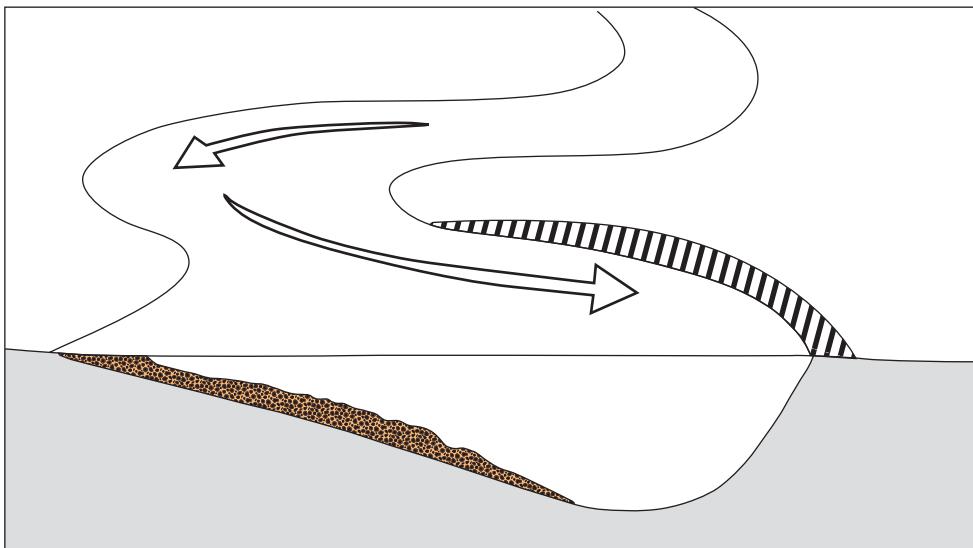
(iii) Describe the conflicting nature of **one** human activity in a coastal area. Refer to a place in your answer.

 _____ [3]

Examiner Only	
Marks	Remark

(e) Study **Fig. 4** below which shows a cross section of a river feature. Answer the questions which follow.

Examiner Only	
Marks	Remark



Adapted from: <http://onlinegeography.wikispaces.com/W-4> licensed under a Creative commons Attribution Share-Alike 3.0 license

Fig. 4

(i) Name the feature shown in **Fig. 4**.

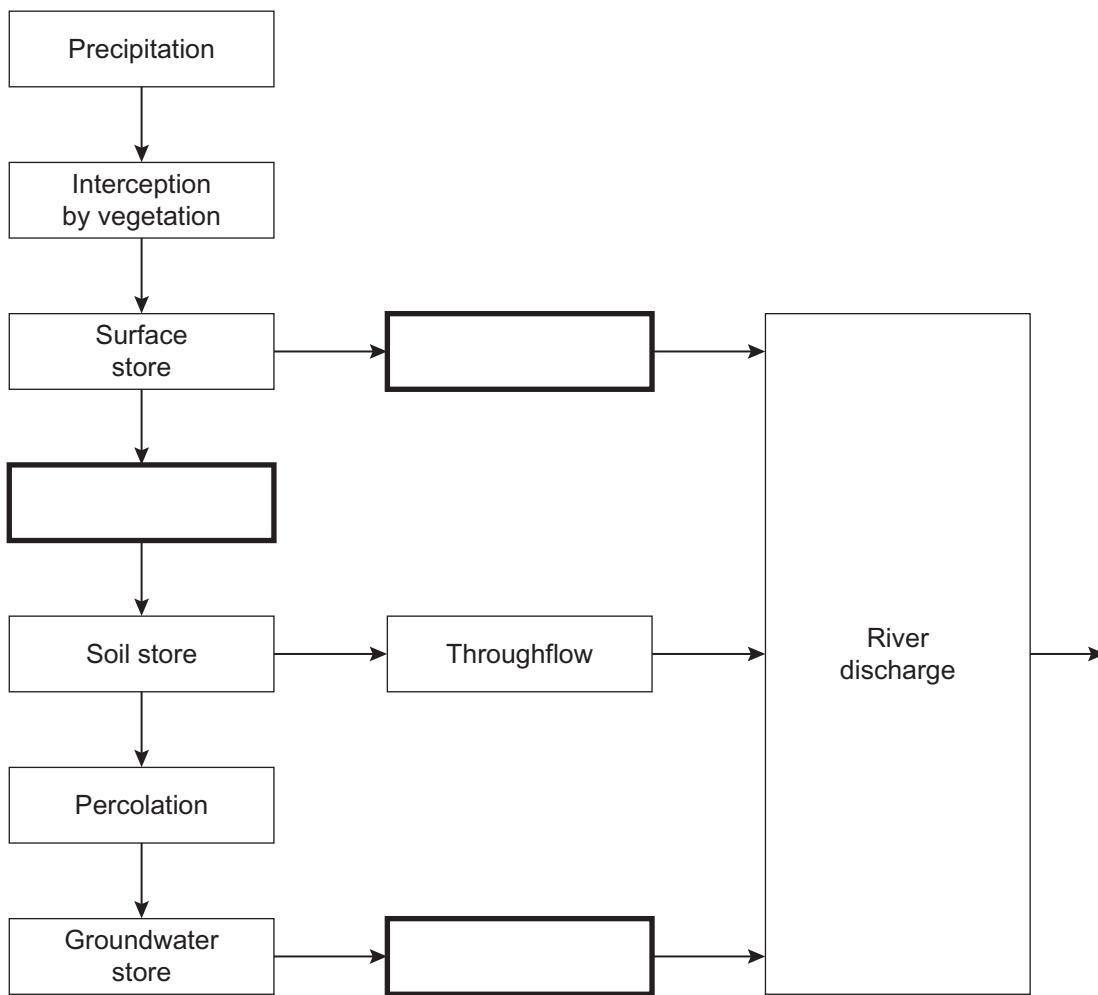
_____ [1]

(ii) Explain how this feature was formed.

[5]

(f) Study **Fig. 5** which shows part of the water cycle. Answer the questions which follow.

Examiner Only	
Marks	Remark



Source: Principal Examiner

Fig. 5

(i) Complete **Fig. 5** by filling in the blank spaces. [3]

(ii) Name **one** input and **one** output shown on **Fig. 5**.

Input _____

Output _____ [2]

(iii) Explain **one** effect on the drainage basin cycle if the vegetation is removed.

[3]

Examiner Only	
Marks	Remark

(g) Study **Fig. 6** which shows a drainage basin which experienced flooding in Co. Tyrone. Answer the questions which follow.

Examiner Only	
Marks	Remark

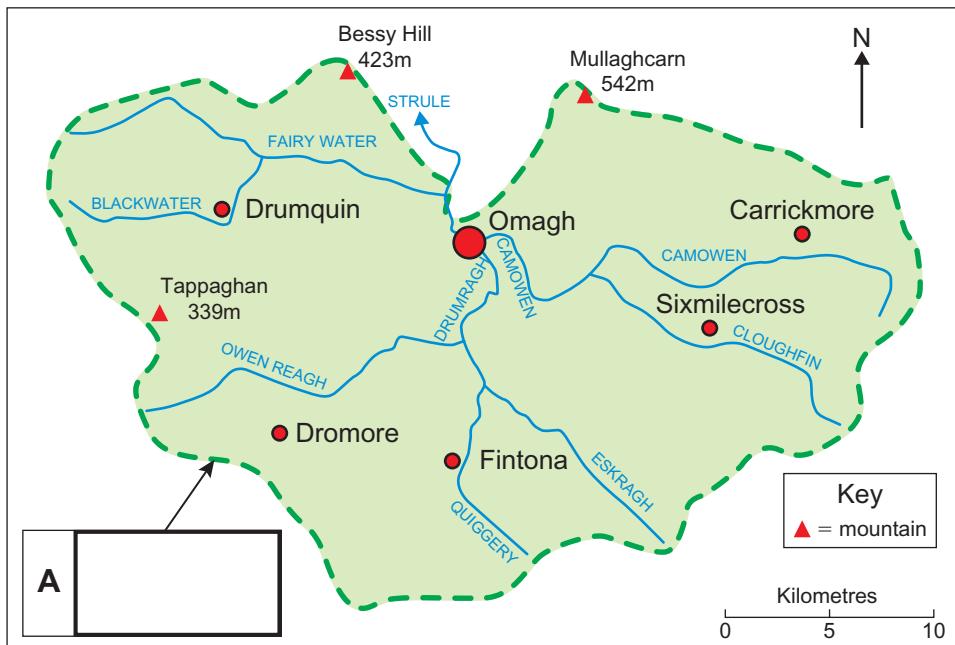


Fig. 6

(i) Label the drainage basin feature **A** shown in **Fig. 6**. [1]

(ii) State fully **one** human cause of flooding.

[3]

(h) (i) State the meaning of the term **soft engineering**.

[2]

(ii) Evaluate **two** river management strategies used on a river that you have studied outside the British Isles.

Name of river _____

[7]

Examiner Only	
Marks	Remark

Theme B: Our Changing Weather and Climate

2 (a) Study **Fig. 7** which shows a weather system over the British Isles on a day in July 2009. Answer the following questions.

Image removed due to copyright restrictions

Fig. 7

(i) Complete the following statements to describe the weather conditions shown on **Fig. 7**.

The pressure at X is _____ mb

The wind direction at Weymouth is _____ [2]

Examiner Only	
Marks	Remark

(ii) Explain how the weather system in **Fig. 7** caused the hot, sunny weather that people were able to enjoy on the beach in Weymouth as shown in **Fig. 8**.



Source: Alistair Coleman / Duckorange

Fig. 8

[3]

(b) (i) Explain how a barometer measures the pressure of the atmosphere.

[3]

Examiner Only	
Marks	Remark

(ii) Weather stations on land collect data which is used to create a weather forecast. Name **two** other sources of data which can be used to create a weather forecast.

1. _____

2. _____

[2]

(c) Depressions are weather systems which can have both positive and negative effects on the economy of places. Describe **one** positive and **one** negative effect of depressions on the economy, referring to different places in your answer.

[4]

(d) (i) Study **Fig. 9** which shows two sources of climate change. Answer the questions which follow.



© iStockphoto / Thinkstock



© Digital Vision / Thinkstock

A

B

Fig. 9

Identify the cause of climate change from each source shown in **Fig. 9**.

A _____

B _____

[2]

(ii) Describe how **one** of the causes shown in **Fig. 9** can lead to climate change.

Cause _____

[3]

(e) Name a country you have studied and evaluate the actual or possible future effects of climate change on the environment and economy of this country.

Name of country _____

Evaluation of effects

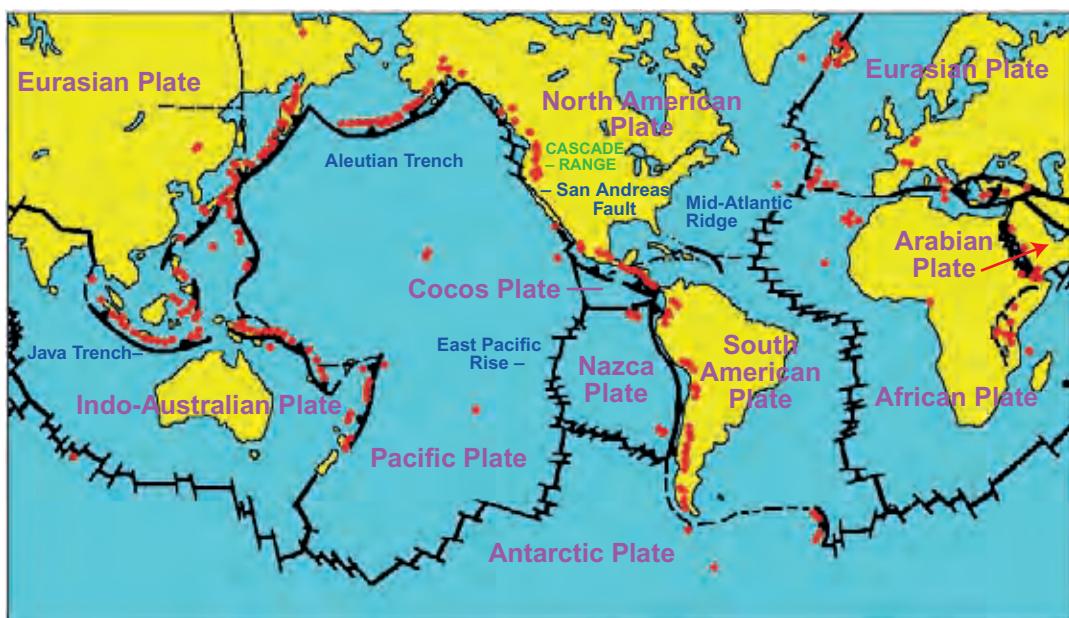
[6]

Examiner Only	
Marks	Remark

Theme C: The Restless Earth

3 (a) Study **Fig. 10** which shows the world distribution of crustal plates and volcanoes. Answer the question which follows.

Examiner Only	
Marks	Remark



Source: USGS, Topinka, USGS/CVO, 1997, Modified from Tilling, Heliker and Wright, 1987 and Hamilton, 1976.

Key
● volcano
↔ plate boundary

Fig. 10

Describe the world distribution of volcanoes shown on the map referring to named places in your answer.

[4]

(b) Study **Fig. 11** which shows Slemish Mountain which is a volcanic plug. Answer the question which follows.



© iStockphoto / Thinkstock

Fig. 11

Explain how a volcanic plug such as Slemish Mountain was formed.

[3]

(c) (i) Complete **Table 1** below to show another example of each of these rock types.

Table 1

Igneous	Sedimentary
Granite	Sandstone

[2]

(ii) Explain how sedimentary rocks were formed.

[3]

(d) Study **Fig. 12** which shows a collision plate boundary. Answer the questions which follow.

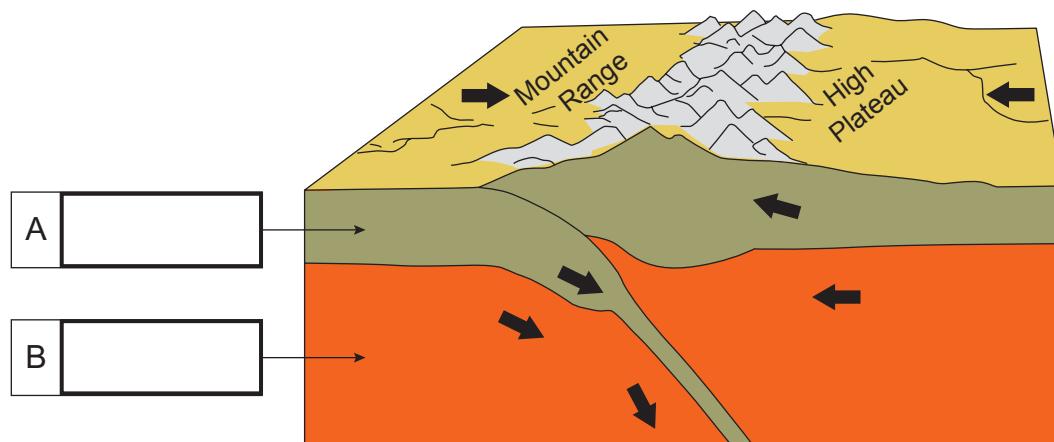


Fig. 12

(i) Add labels at A and B on **Fig. 12** to indicate the following two layers:

Mantle

Crust

[2]

Examiner Only	
Marks	Remark

(ii) Explain how fold mountains are formed at a collision plate boundary.

[3]

(e) Earthquakes may occur far away from plate boundaries. Name an earthquake in the British Isles which you have studied. Outline the cause of this earthquake and describe and explain fully **one** impact this earthquake had.

Name of Earthquake _____

Cause

[2]

Impact

[3]

(f) Attempts have been made to manage the impacts of earthquakes. Describe **one** long term management strategy used to manage the effects of an earthquake you have studied.

Location of earthquake _____

Long term strategy

[3]

THIS IS THE END OF THE QUESTION PAPER

Permission to reproduce all copyright material has been applied for.
In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA
will be happy to rectify any omissions of acknowledgement in future if notified.