

New Specification



Rewarding Learning

General Certificate of Secondary Education
2011

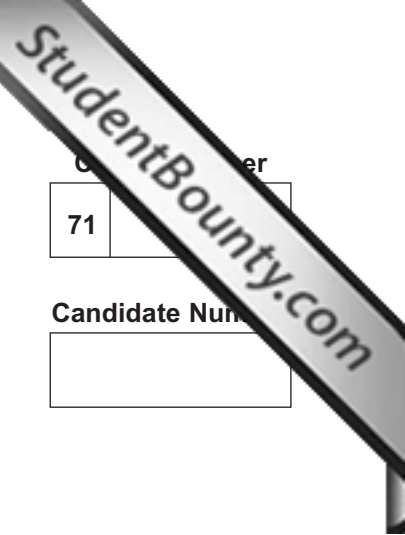
Geography

Unit 1:
Understanding Our Natural World

Higher Tier

[GGG12]

MONDAY 13 JUNE, MORNING



Centre Number	
71	
Candidate Number	

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(a)(v)**, **1(f)(ii)** and **3(d)**.



6670

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

Answer **all three** questions.

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

_____ [1]

(iv) The area shown on the map is popular with tourists. Using map evidence state **three** activities that tourists could enjoy.

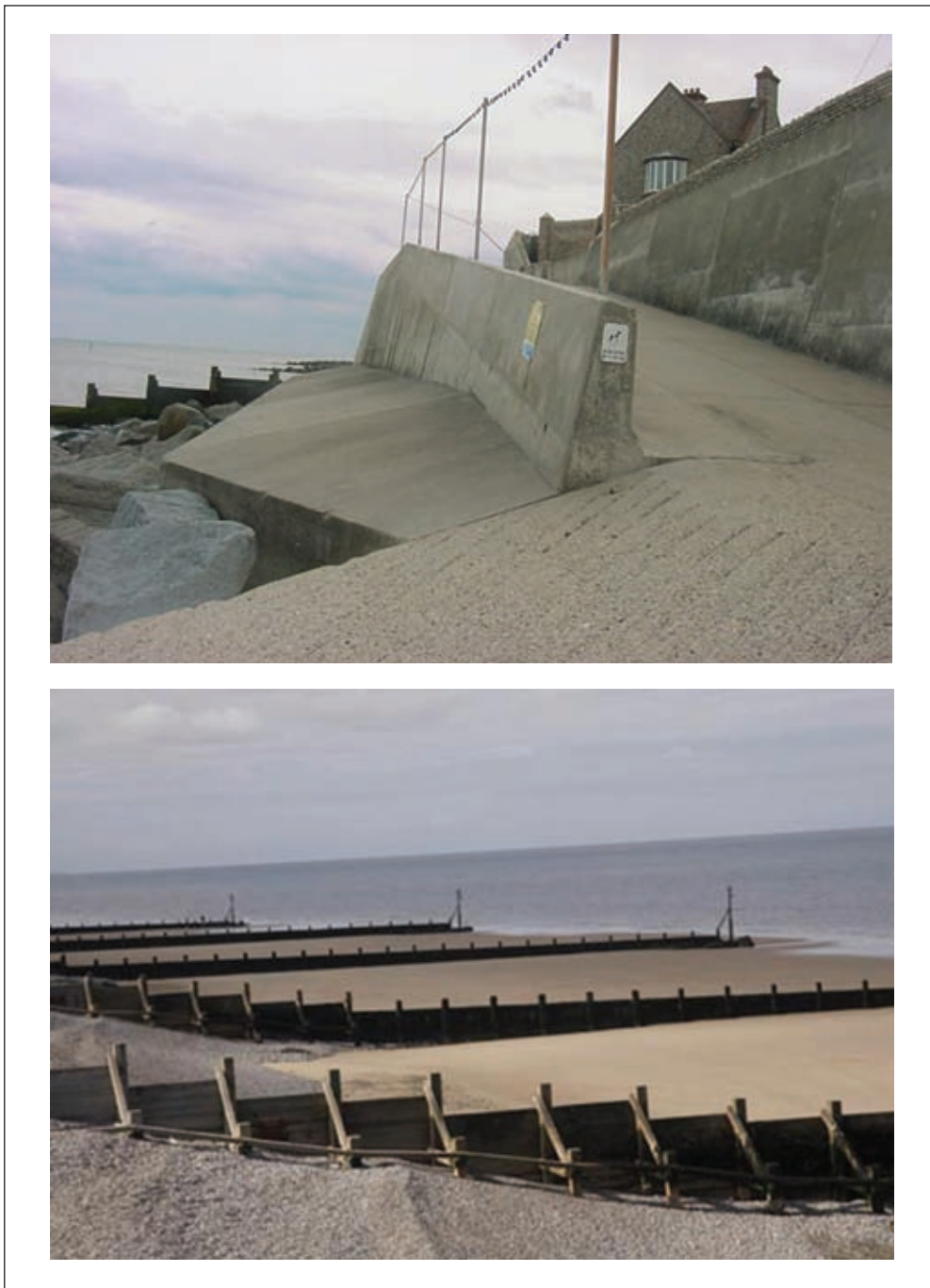
1. _____

2. _____

3. _____
_____ [3]

Examiner Only	
Marks	Remark

(b) Study **Fig. 1** which shows photographs of the sea wall and groynes along the coast at Sheringham between GR 1543 and GR 1643.



Sea Wall - © William Howard School, Cumbria
Groynes - © www.walkingbritain.co.uk

Fig. 1

Explain how each of these coastal management strategies work.

Sea Wall _____

_____ [3]

Groynes _____

_____ [3]

Examiner Only	
Marks	Remark

(c) Study **Fig. 2** which shows some human activities in coastal areas. Select **two** of these activities and suggest how these activities might be in conflict. You should refer to a place to illustrate your answer.

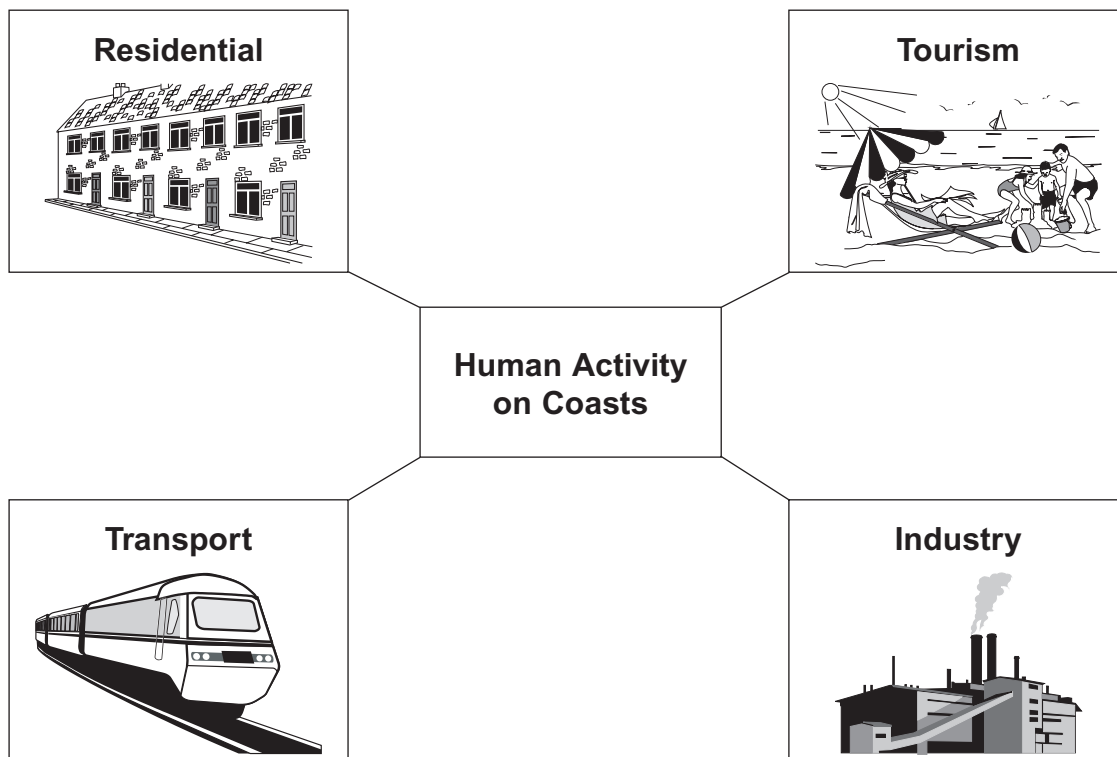


Fig. 2

Activities chosen _____ and _____ .

_____ [3]

Examiner Only	
Marks	Remark

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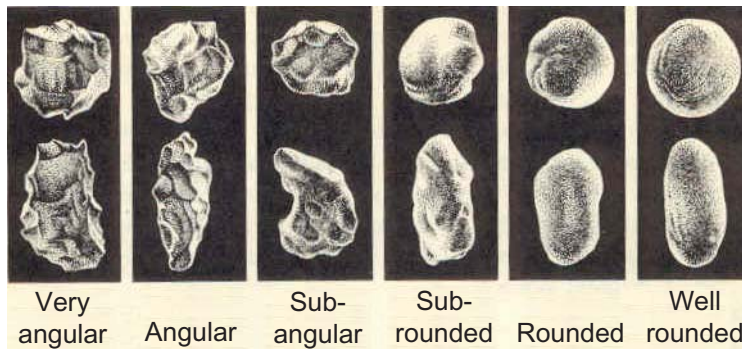
(Questions continue overleaf)

(d) A field study was carried out on a river in Northern Ireland. Study **Fig. 3** which shows information obtained and answer the questions which follow.

	Site 1	Site 2	Site 3	Site 4	Site 5
Distance from Source (km)	0.8	1.35	3.5	6.0	8.9
Average length of rock in cm (long axis)	12.90	11.25	10.88	9.55	7.90
Average roundness	Angular	Sub-angular	Sub-rounded	Rounded	Well-rounded



Measuring the long axis of a rock collected from the river.



Powers' Scale of Roundness

© Royal Geographical Society with IBG
© American Geological Institute

(i) Describe the changes in the load with distance downstream.

[4]

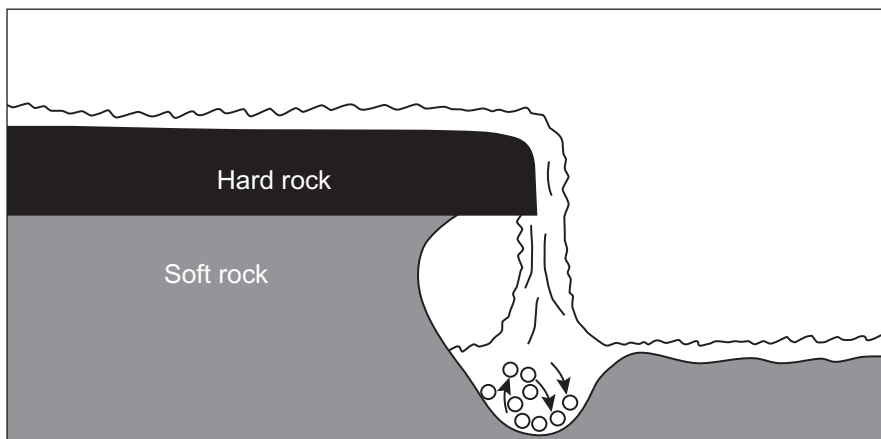
(ii) Explain how these changes in the load occur.

[5]

Examiner Only	
Marks	Remark

[Turn over

(e) Study Fig. 4 which shows a cross-section of a waterfall.



Source: Principal Examiner

Fig. 4

Using the diagram to help you, explain how a waterfall forms.

[5]

Examiner Only	
Marks	Remark

- (f) (i) For a named river **within** the British Isles describe **one** physical and **one** human cause of flooding.

[4]

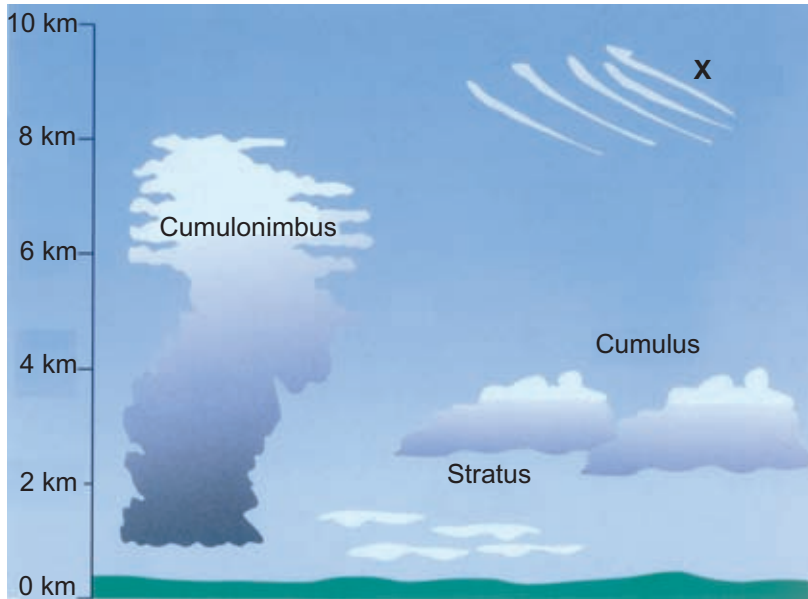
- (ii) For a named river **outside** the British Isles, evaluate the extent to which river management strategies used on this river can be considered sustainable.

[7]

Examiner Only	
Marks	Remark

Theme B: Our Changing Weather and Climate

- 2 (a) Study **Fig. 5** which shows different types of clouds. Answer the questions which follow.



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Fig. 5

- (i) Name the type of cloud at **X**.

[1]

- (ii) State the type of cloud associated with thunderstorms.

[1]

Examiner Only	
Marks	Remark

(b) A rain gauge is used to measure precipitation. Describe a rain gauge and explain how the amount of precipitation is measured.

Description

[3]

Explanation of how precipitation is measured.

[2]

Examiner Only	
Marks	Remark

(c) Study **Fig. 6** which shows information about a weather system. Answer the questions which follow.

Examiner Only	
Marks	Remark

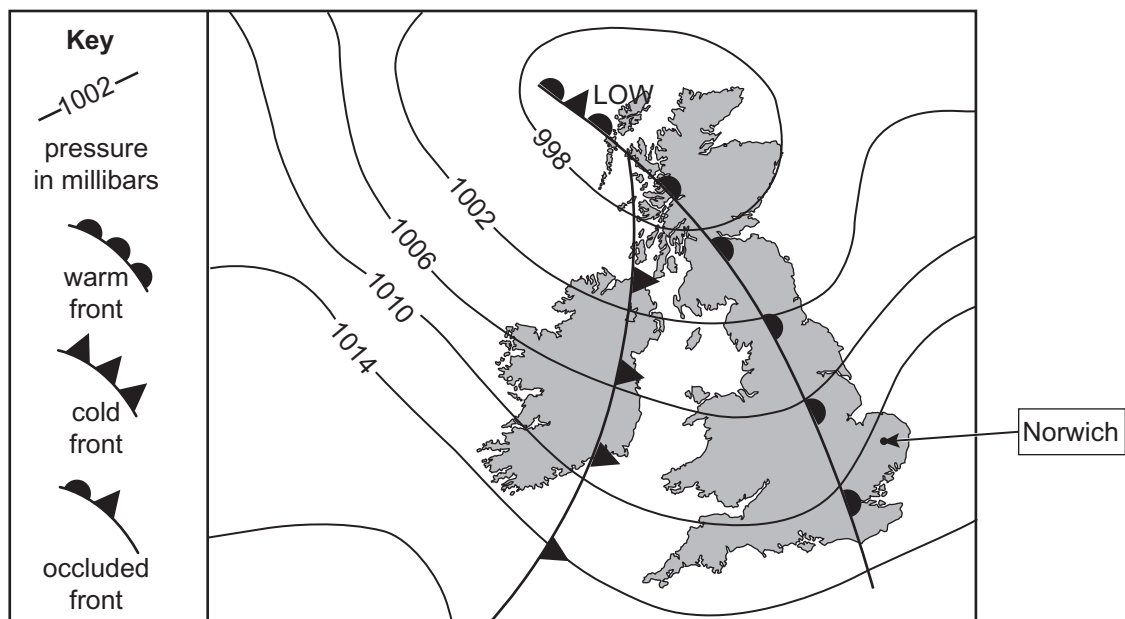


Fig. 6

(i) What is a synoptic chart?

[2]

(ii) State the name of the weather system located over the British Isles.

[1]

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

Describe and explain how the temperature will change.

Description

[2]

Explanation

[3]

Examiner Only	
Marks	Remark

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



© U S Geological Survey/Jack Lockwood

Fig. 7 A volcano erupting in Indonesia

(i) Explain **one** way in which an erupting volcano may change the climate.

[3]




Examiner Only	
Marks	Remark

Theme C: The Restless Earth

Examiner Only	
Marks	Remark

3 (a) Study **Table 1** which gives information about three rocks. Answer the questions which follow.

Table 1

Picture of rock	Simple characteristics of rock	Name of rock
	Rough texture, hard, speckled igneous rock.	
	Quite hard sedimentary rock with a granular structure.	sandstone
	Dark grey metamorphic rock with layers which split easily.	

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(i) Complete **Table 1** by writing in the names of the first and last rocks in the table. [2]

(ii) Choose **one** of the rocks from **Table 1** and explain how it was formed.

[3]

(b) Explain the formation of a lava plateau, such as the Antrim Plateau in Northern Ireland.

[4]

Examiner Only	
Marks	Remark

[Turn over

(c) Study **Fig. 8** which gives some information about the earthquake which affected Haiti in 2010. Answer the questions which follow.

Examiner Only

Marks	Remark
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Haiti Earthquake was not a Surprise to Some Geologists



On 12 January 2010, the LEDC country of Haiti was struck by an earthquake measuring 7 on the Richter Scale. Port-au-Prince, the capital of Haiti, is only 16km from the plate boundary where the Caribbean Plate is sliding alongside the North American Plate.

The earthquake, which had a shallow focus, resulted in almost 200 000 deaths and widespread destruction.

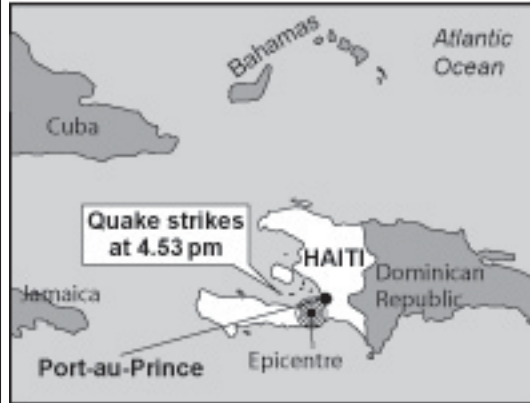


Fig. 8

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

_____ [1]

(ii) Explain why earthquakes in LEDCs tend to cause more deaths than those in MEDCs.

_____ [4]

THIS IS THE END OF THE QUESTION PAPER

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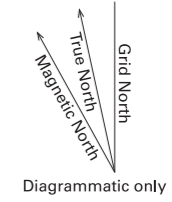
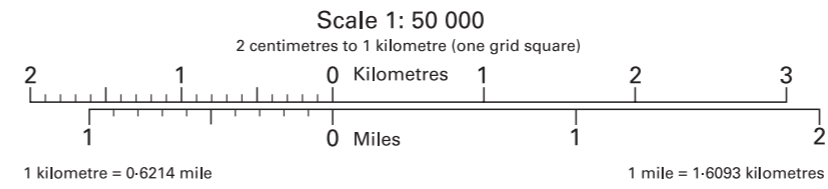


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ROADS AND PATHS	Not necessarily rights of way
Junction number Elevated	Motorway (dual carriageway)
Unfenced	Primary Route (recommended through route)
Dual carriageway	Main road
Footbridge	Road under construction
Secondary road	Narrow road with passing places
Bridge	Road generally more than 4m wide
Road tunnel	Path / Other road, drive or track
Ferry P	Ferry V

LAND FEATURES	ANTIQUEITIES
Electricity transmission line (pylons shown at standard spacing)	Site of antiquity
Pipe line (arrow indicates direction of flow)	Battlefield (with date)
Buildings	Visible earthwork
Important building (selected)	Roman
Bus or coach station	Non-Roman
Current or former place of worship (with tower or with spire, minaret or dome)	
Place of worship	
Glass structure	
Heliport	
Triangulation pillar	
Mast	
Wind pump, wind turbine	
Windmill with or without sails	

RAILWAYS	BOUNDARIES
Track multiple or single	National
Track under construction	District
Siding	County, Unitary Authority, London Borough or Metropolitan District
Tunnel, cuttings	National Park
Light rapid transit system, narrow gauge or tramway	
Bridges, footbridge	
Level crossing	
Viaduct, embankment	
Station, (a) principal	
Light rapid transit system station	

WATER FEATURES	HEIGHTS	ROCK FEATURES
Marsh or salting	Contours are at 10 metres vertical interval	Outcrop
Canal	Heights are to the nearest metre above mean sea level	Cliff
Aqueduct		Scree
Weir		
Lock		
Ford		
Normal tidal limit		
Footbridge		
Bridge		
Canal (dry)		
Slopes		
Cliff		
Shingle		
Flat rock		
Lighthouse (in use)		
Lighthouse (disused)		
Low water mark		
High water mark		
Mud		

TOURIST INFORMATION	ABBREVIATIONS
Camp site / caravan site	Br Bridge
Garden	MS Milestone
Golf course or links	CG Cattle grid
Information centre (all year / seasonal)	P Post office
Nature reserve	CH Clubhouse
Parking, Park and ride (all year / seasonal)	PC Public convenience (in rural areas)
Picnic site	Fm Farm
Recreation / leisure / sports centre	Ho House
Selected places of tourist interest	Sch School
Telephone, public / roadside assistance	MP Milepost
Viewpoint	TH Town Hall, Guildhall or equivalent
Visitor centre	
Walks / Trails	
World Heritage site or area	
Youth hostel	

PUBLIC RIGHTS OF WAY	OTHER PUBLIC ACCESS
Footpath	Other route with public access (not normally shown in urban areas)
Bridleway	On-road cycle route
Restricted byway	Traffic-free cycle route
Byway open to all traffic	National Cycle Network number
	Regional Cycle Network number
	National Trail, European Long Distance Path, Long Distance Route, selected Recreational Routes