

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE

Geography A

Unit 2: The Natural Environment

Foundation Tier

Friday 17 June 2011 – Morning

Time: 1 hour

Paper Reference

5GA2F/01

You must have:

Resource Booklet (enclosed)

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section **A** answer only **one** question from questions 1, 2, 3 **or** 4.
- In Section **B** answer **either** question 5 **or** 6.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 50.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Check your answers if you have time at the end.

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SECTION A – THE PHYSICAL WORLD

Answer only ONE question from Section A.

Indicate which question you are answering by marking a cross ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Topic 1: Coastal Landscapes

If you answer Question 1 put a cross in this box ☒ .

1 (a) Look at Figure 1a.

It shows the wave fetches from Sefton, near Liverpool.

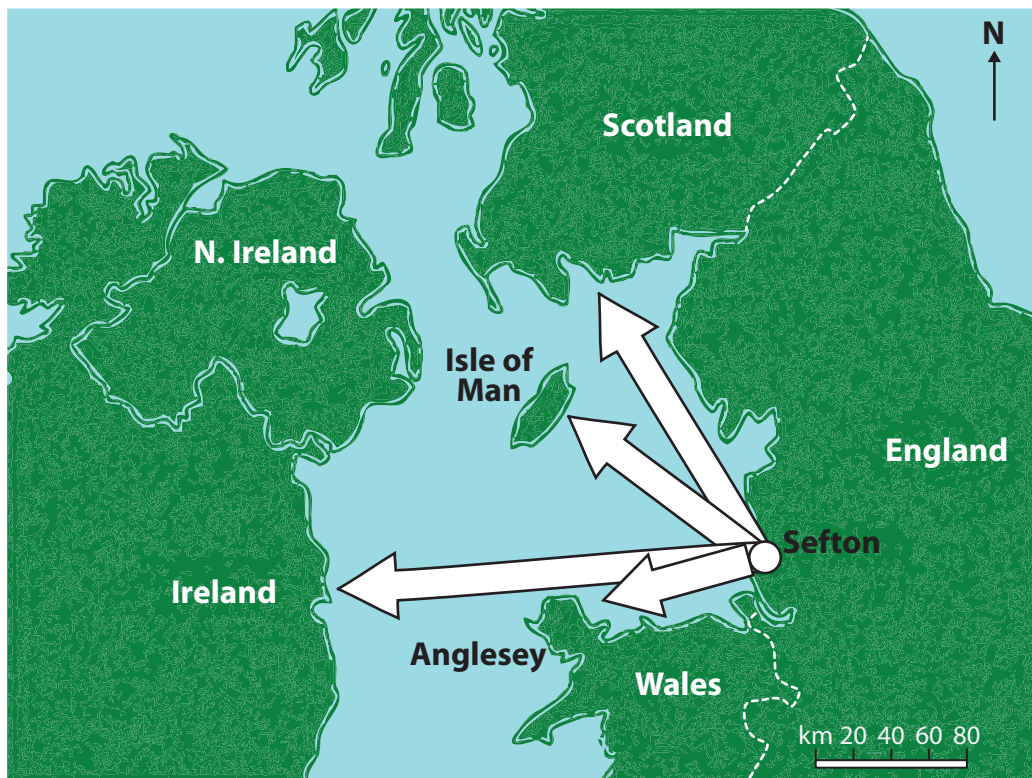


Figure 1a

(i) Which place has the longest wave fetch from Sefton?

(1)

- A Ireland
- B Anglesey
- C Isle of Man
- D Scotland



(ii) What is the length of wave fetch from Sefton to Anglesey?

(1)

- A 150 km
- B 200 km
- C 80 km
- D 40 km

(iii) Complete the sentences to explain the effect of wave fetch on the coastline.

Use some of the words in the box below.

(5)

Anglesey time more distance greater smaller Scotland

Fetch is the over which waves can build up.

If there is a fetch then the waves will have more energy.

This can result in erosion taking place.

On Figure 1a the fetch from Sefton to is greater than the fetch from Sefton to

(iv) Outline the differences between constructive and destructive waves.

(3)

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(b) (i) One type of mass movement is

(1)

- A** attrition
- B** weathering
- C** soil creep
- D** soil erosion

(ii) State **one** impact of slumping on the coast.

(1)

(c) (i) Deposition mainly occurs when the

(1)

- A** waves have high energy causing material to be dropped
- B** waves have lower energy causing material to be dropped
- C** waves remove material from the coastline
- D** wind is mainly blowing offshore



(ii) Describe the formation of a spit.

Use a diagram in your answer.

(4)

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(d) Look at Figure 1b (photograph) in the Resource Booklet.

It shows an example of hard engineering.

(i) What type of hard engineering is shown in Figure 1b?

(1)

- A** rock groyne
- B** off-shore reef
- C** managed retreat
- D** revetment

(ii) Describe the advantages of hard engineering.

(3)

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(iii) Outline how the effects of coastal flooding can be reduced.

Use examples in your answer.

(4)

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(Total for Question 1 = 25 marks)



Topic 2: River Landscapes

If you answer Question 2 put a cross in this box .

2 (a) Look at Figure 2a.

It shows how a river landform changed between 1900 and 2000.

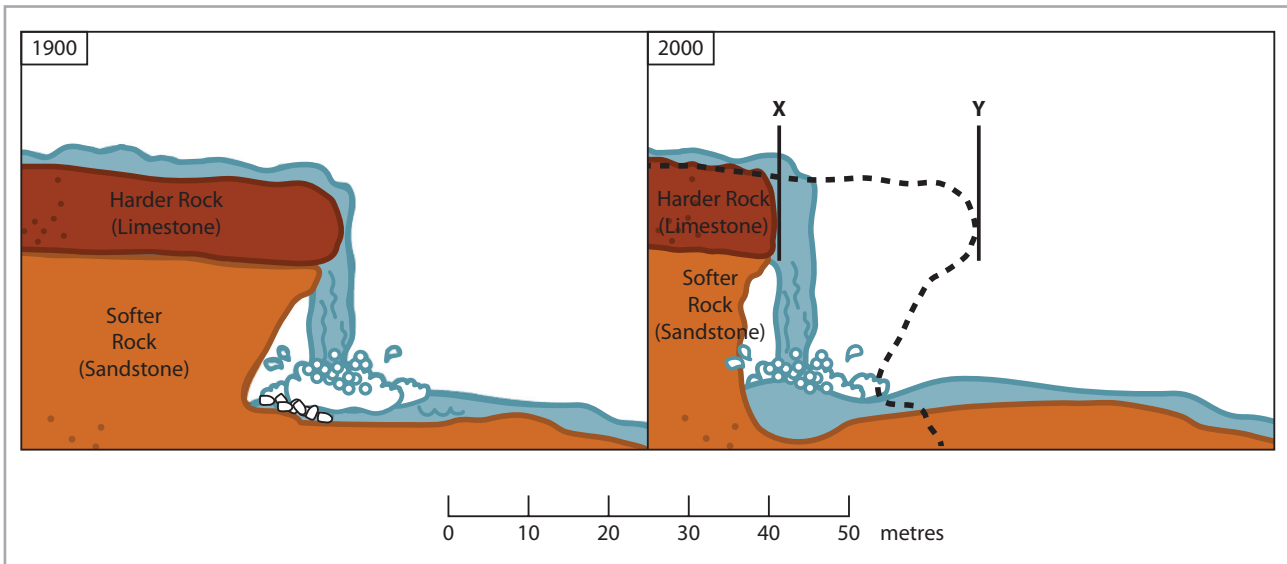


Figure 2a

(i) Which landform is shown in Figure 2a?

(1)

- A meander
- B embankment
- C interlocking spur
- D waterfall

(ii) How much has the hard rock moved back between X and Y?

(1)

- A 10 m
- B 50 m
- C 25 m
- D 40 m



(iii) Complete the sentences to outline how the landform in Figure 2a is affected by erosion.

Use some of the words in the box below.

(5)

faster limestone slower rapids sandstone gorge advance retreat

The softer rock, , is weaker than the harder rock.

This means it is eroded , creating an overhang.

Over time, the harder will collapse, and fall into the plunge pool.

Continued erosion will cause the of the landform forming a

(iv) Outline the differences between the upper stage and the lower stage of a river valley.

(3)

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(b) (i) One type of mass movement is

(1)

- A** attrition
- B** weathering
- C** slumping
- D** soil erosion

(ii) State **one** impact of mass movement on river landscapes.

(1)

(c) (i) Deposition occurs in a river channel when sediment

(1)

- A** particles collide in the flow of the channel
- B** scrapes against the river bank
- C** is dissolved in the flow of the channel
- D** is dropped due to slower flow in the channel



(ii) Describe the formation of levees.

Use a diagram in your answer.

(4)

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(d) Look at Figure 2b (photograph) in the Resource Booklet.

It shows a river flood in Cumbria in 2009.

(i) One environmental effect of this flooding was

(1)

- A** the railway tracks were submerged
- B** the loss of wildlife habitat
- C** there were 300 000 deaths
- D** many people contracted diarrhoea

(ii) Describe the effects of the flooding shown in Figure 2b on the people who lived there.

(3)

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(iii) Outline how the effects of river flooding can be reduced.

Use examples in your answer.

(4)

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(Total for Question 2 = 25 marks)



Topic 3: Glaciated Landscapes

If you answer Question 3 put a cross in this box .

3 (a) Look at Figure 3a.

It shows the retreat of a glacier between 1980 and 1990.

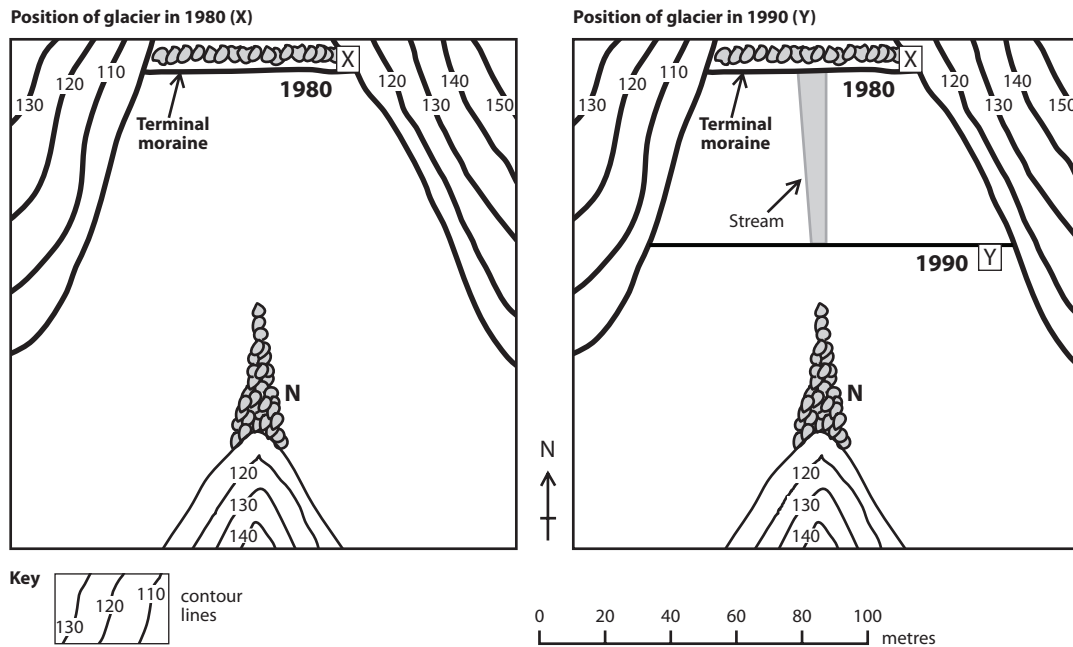


Figure 3a

(i) How far did the glacier retreat between X (1980) and Y (1990)?

(1)

- A 100 m
- B 80 m
- C 60 m
- D 20 m

(ii) In which direction did the glacier retreat between X and Y?

(1)

- A towards the north
- B towards the east
- C towards the south
- D towards the west



(iii) What type of moraine is **N** on Figure 3a?

(1)

- A** terminal
- B** medial
- C** ground
- D** lateral

(iv) What is a terminal moraine?

(1)

(v) Figure 3a is a map of a U-shaped valley.

Describe the features of a U-shaped valley.

(3)



(vi) Complete the sentences to outline the differences between lodgement and ablation.

Use some of the words in the box below.

(5)

ablation eroded pressed dropped advancing retreating increased

Lodgement occurs when the glacier is

As the glacier moves forwards, rock carried at the base of the glacier is

..... into the valley floor.

..... occurs when a glacier is retreating.

..... temperatures cause the glacier to melt.

The material it is carrying is then

(b) (i) The type of weathering most likely to be found in upland glacial landscapes is (1)

- A** biological
- B** freeze thaw
- C** chemical
- D** plucking

(ii) State **one** impact of weathering on upland glacial landscapes. (1)

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.....

(c) (i) Which of the following processes is a type of glacial erosion? (1)

- A** freeze thaw
- B** abrasion
- C** ablation
- D** lodgement



(ii) Describe the formation of an arête.

Use a diagram in your answer.

(4)

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Question 4 is on the next page

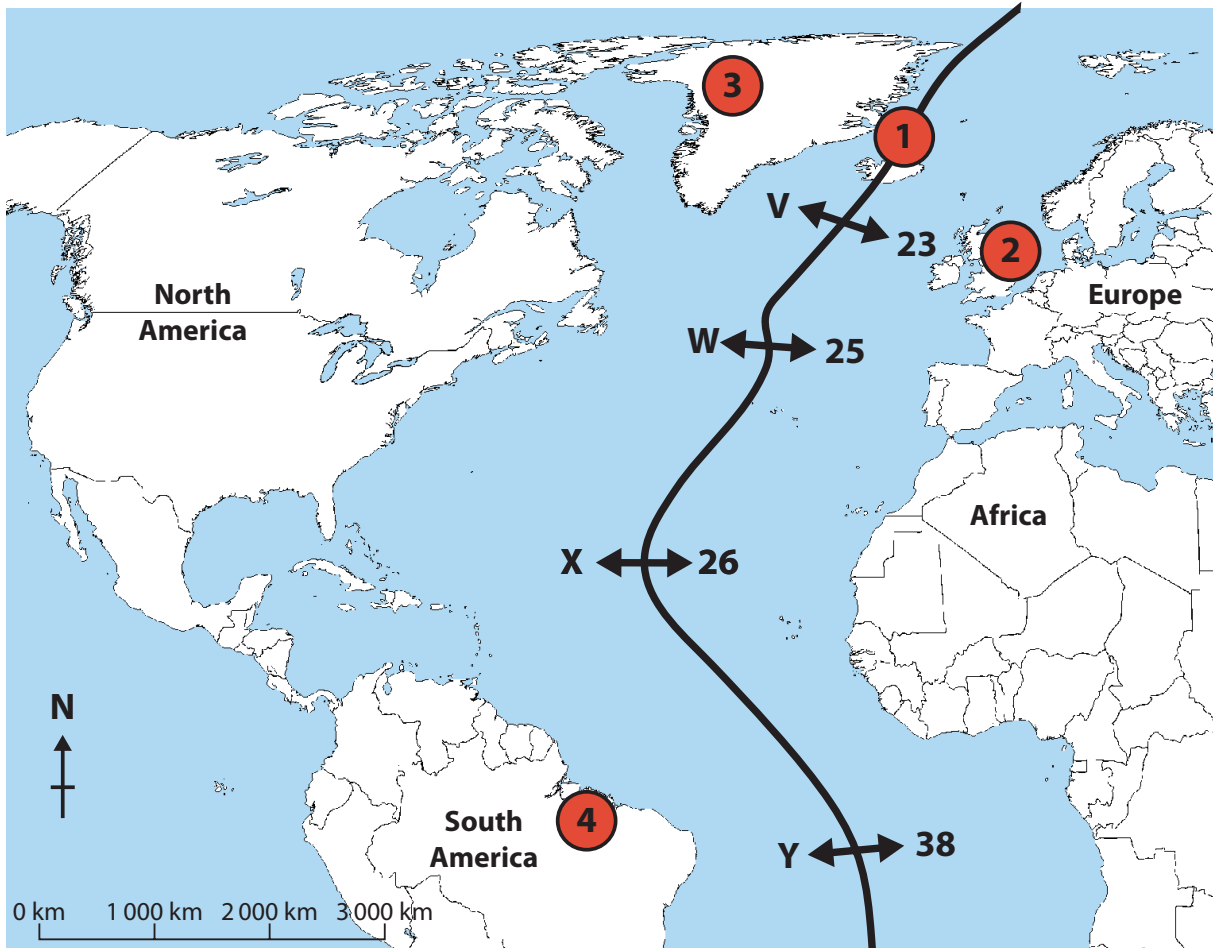


Topic 4: Tectonic Landscapes

If you answer Question 4 put a cross in this box .

4 (a) Look at Figure 4a.

It shows rates of plate movement along the Mid-Atlantic Ridge, a divergent plate boundary.



$X \longleftrightarrow 26$ = movement in mm per year, at that point on the plate boundary

Figure 4a

(i) Which point on the Mid-Atlantic Ridge has the most movement per year?

(1)

- A V
- B W
- C X
- D Y



(ii) Describe the movements shown along this plate boundary.

(3)

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(iii) On Figure 4a there are four red spots marked 1 to 4.

Which red spot shows the location of a volcano?

(1)

A 1

B 2

C 3

D 4

(iv) State **two** features found at a convergent plate boundary and **two** features found at a conservative plate boundary.

(4)

Convergent plate boundary features

1

2

Conservative plate boundary features

1

2



(v) Complete the sentences to describe why volcanoes occur at divergent plate boundaries.

Use some of the words in the box below.

(5)

convection shield magma collapse plate earthquake dome eruption

At divergent plate boundaries causes
..... to rise to the surface.

This causes the to and crack.

When magma reaches the surface an occurs from
a volcano.

(b) (i) If an area suffers from an earthquake with Mercalli Scale 12, what are the likely effects?

(1)

- A** people do not feel earth movements
- B** complete devastation, all buildings destroyed, ground moves in waves
- C** hanging objects swing, doors open or close
- D** some buildings or foundations are damaged, small landslides occur

(ii) Outline why people continue to live in areas affected by earthquakes.

(3)

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SECTION B – ENVIRONMENTAL ISSUES

Answer EITHER Question 5 OR Question 6.

Topic 5: A Wasteful World

If you answer Question 5 put a cross in this box .

5 (a) Look at Figure 5a.

It is a pie chart showing types of waste in Surrey.

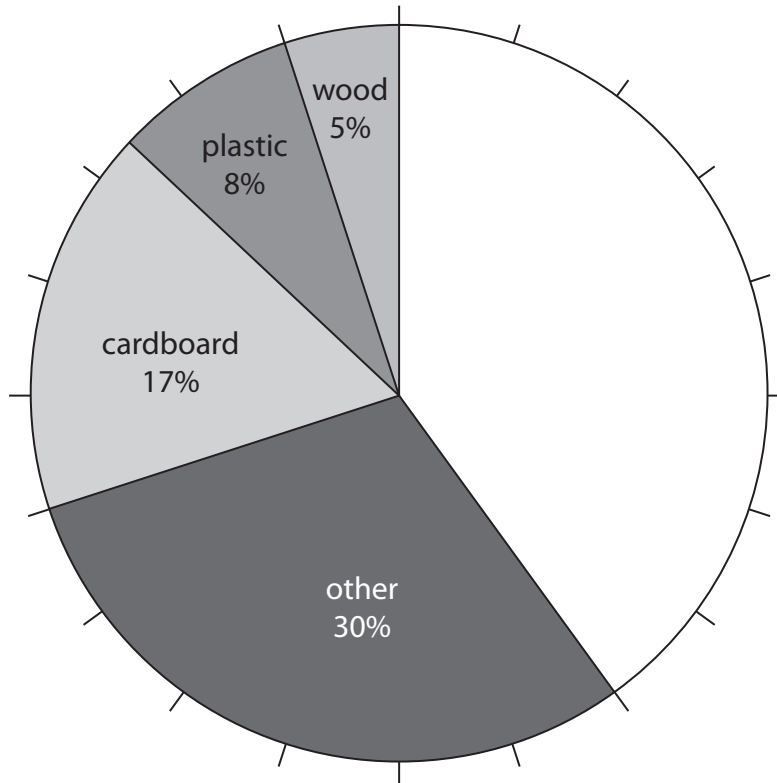


Figure 5a

(i) Complete the pie chart.

Use the data in the table below.

(2)

Type of waste	Percentage (%)
Food	10
Paper	30



(ii) Complete the sentences to suggest why people in High Income Countries (HICs) create a lot of waste.

Use some of the words in the box below.

(5)

HICs LICs food plastic garden packaging waste

People in have more money.

This means that they are able to buy products which come with lots of

This can lead to and paper waste.

People in HICs can easily buy from supermarkets.

Often people buy more than they can eat, leading to

(iii) Outline how HICs dispose of domestic waste.

(3)

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(b) Look at Figure 5b in the Resource Booklet.

It shows a map of nuclear power stations in Great Britain.

(i) Which nuclear power station generates 1001–1250 MW of power?

(1)

- A** Bradwell
- B** Torness
- C** Chapelcross
- D** Dounreay



(ii) Describe the distribution of nuclear power stations in Great Britain.

Use evidence from Figure 5b in your answer.

(3)

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(c) (i) One advantage of renewable energy is

(1)

- A** it is very cheap to set up
- B** people love wind turbines in their gardens
- C** it produces little carbon dioxide
- D** it produces a lot of carbon dioxide

(ii) One advantage of non-renewable energy is it

(1)

- A** is clean energy
- B** cheaper to produce
- C** produces lots of carbon dioxide
- D** will last forever

(iii) State **two** disadvantages of renewable energy.

(2)

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Topic 6: A Watery World

If you answer Question 6 put a cross in this box .

6 (a) Look at Figure 6a.

It is a pie chart of domestic water usage in Canada, a High Income Country (HIC).

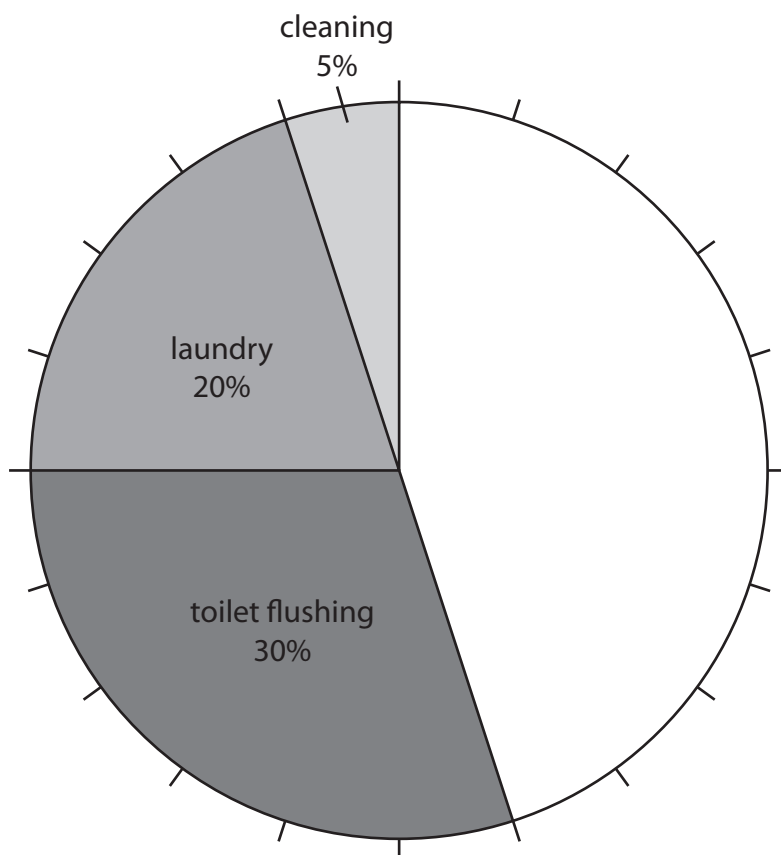


Figure 6a

(i) Complete the pie chart.

Use the data in the table below.

(2)

Water usage	Percentage (%)
Kitchen and drinking	10
Shower and bath	35



(ii) Complete the sentences below to describe the differences in water usage between High Income Countries (HICs) and Low Income Countries (LICs).

Use some of the words in the box below.

(5)

less HICs more LICs dishwashers boreholes factories

Household water usage is very high in

In HICs water is available and people often use machines, such as

In many homes do not have piped water.

Therefore they may have to walk several kilometres to collect clean water from

(b) Look at Figure 6b (map) in the Resource Booklet.

It shows water supply problems in England.

(i) Name a region with low water supply problems.

(1)

A South west

B South

C South east

D East midlands

(ii) Describe the distribution of water supply problems in England.

Use evidence from Figure 6b in your answer.

(3)

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(iii) Suggest reasons why some regions have serious water supply problems.

(3)

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(c) (i) Water can be managed effectively for agricultural purposes.

Which of these agricultural uses wastes least water?

(1)

- A 24 hour sprinklers
- B using a hosepipe for 18 hours
- C drip irrigation which waters plants when needed
- D watering crops with 500 buckets a day

(ii) Which of the following will help reduce water use in the home?

(1)

- A having a bath
- B leaving the tap running while brushing your teeth
- C dripping taps
- D using a short flush toilet

(iii) State **two** ways water is managed by industry in HICs.

(2)

1

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2

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(d) (i) Appropriate technology is a method of water management in LICs.

What is appropriate technology?

(1)

- A** building large-scale projects such as dams
- B** small-scale schemes set up by the local community
- C** importing water from HICs
- D** high technology water pumps



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Edexcel GCSE

Geography A

Unit 2: The Natural Environment

Paper 2F and 2H

Friday 17 June 2011 – Morning
Resource Booklet

Paper Reference
5GA2F/01
5GA2H/01

Do not return the Resource Booklet with the question paper.

Information

This Resource Booklet contains maps and photographs needed for use with the Unit 2: The Natural Environment examination.

This Resource Booklet is for use with both foundation and higher tier papers.

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SECTION A – THE PHYSICAL WORLD

Topic 1: Coastal Landscapes



(By kind permission: S. Warren)

Figure 1b

Topic 2: River Landscapes



Figure 2b

Topic 3: Glaciated Landscapes



"I sure am glad we came up here to practice for the Talent Show."

(Source: CartoonStock.com)

Figure 3b

Topic 4: Tectonic Landscapes



Figure 4b

SECTION B – ENVIRONMENTAL ISSUES

Topic 5: A Wasteful World



Figure 5b

Water supply problems in England

Water supply problems

- Serious
- Moderate
- Low
- Not assessed

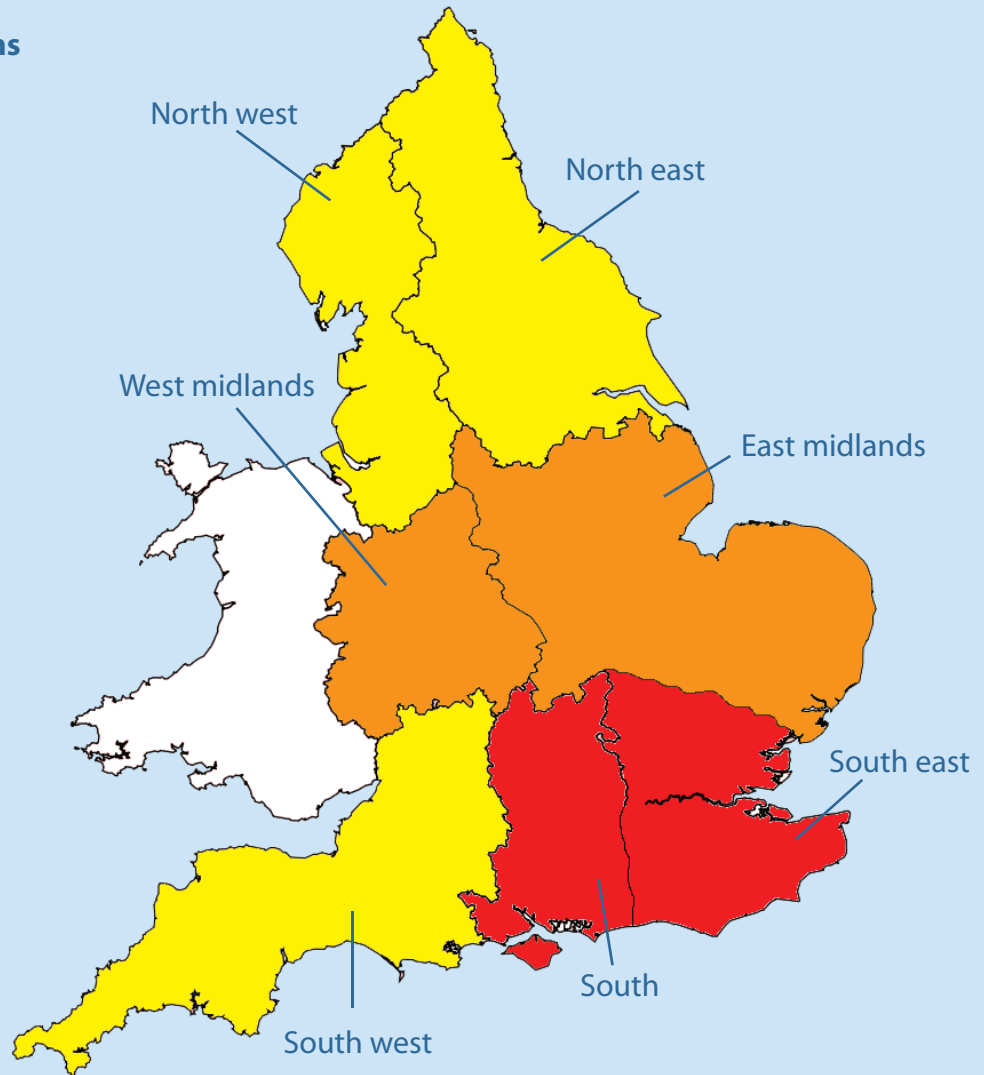


Figure 6b

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