Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Monday 18 May 2020

Morning (Time: 1 hour 30 minutes) | Paper Reference **1GA0/01**

Geography A

Paper 1: The Physical Environment

You must have:
Resource Booklet, calculator

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 Question 1 and **two** questions from Questions 2, 3 and 4.
- In Section B and Section C answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Where asked you must **show all your working out** with **your answer clearly identified** at the **end of your solution**.

Information

- The total mark for this paper is 94.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- The marks available for spelling, punctuation, grammar and use of specialist terminology are clearly indicated.

Advice

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

Turn over ▶

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SECTION A

The Changing Landscapes of the UK

Answer ALL parts of Question 1. Write your answers in the spaces provided.

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 ☒.

1 UK landscapes consist of a range of different rock types.

(a) (i) State **one** example of a sedimentary rock.

(1)

.....

(ii) Identify **one** characteristic of a sedimentary rock.

(1)

☐ **A** formed by cooling

☐ **B** crystal structure

☐ **C** layered structure

☐ **D** formed by heating

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(b) Study Figure 1 in the Resource Booklet.

Describe the relief of the landscape in grid square **A**.

(2)

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(c) Explain **one** way in which forestry can affect the landscape.

(2)

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(Total for Question 1 = 6 marks)

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Answer only TWO questions from Question 2 (Coastal Landscapes and Processes), Question 3 (River Landscapes and Processes) and Question 4 (Glaciated Upland Landscapes and Processes).

Question 2: Coastal Landscapes and Processes

If you answer Question 2 put a cross in the box ☒ .

2 Coastal landscapes are constantly being changed by different processes.

(a) Study Figure 2a in the Resource Booklet.

Identify landform **X** shown on Figure 2a.

(1)

☒ **A** arch

☒ **B** spit

☒ **C** stack

☒ **D** wave cut platform

(b) State **one** type of weathering process.

(1)

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(c) Groynes are an example of hard engineering.

Explain **one** disadvantage of using groynes to protect the coast.

(2)

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(d) Study Figures 2b and 2c in the Resource Booklet.

Examine the role of geology and physical processes in the formation of the coastal landforms shown in Figures 2b and 2c.

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(Total for Question 2 = 12 marks)

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Question 3: River Landscapes and Processes

If you answer Question 3 put a cross in the box ☒ .

3 River landscapes are constantly being changed by different processes.

(a) Study Figure 3a in the Resource Booklet.

Identify landform **Y** shown on Figure 3a.

(1)

☐ **A** interlocking spurs

☐ **B** levee

☐ **C** point bar

☐ **D** river cliff

(b) State **one** type of erosion process.

(1)

.....

(c) Explain **one** way that heavy rainfall can cause flooding in river landscapes.

(2)

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(d) Study Figure 3b in the Resource Booklet.

Examine the advantages and disadvantages of the flood defences (washlands and floodplain zoning) shown in Figure 3b.

(8)

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(Total for Question 3 = 12 marks)

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Question 4: Glaciated Upland Landscapes and Processes

If you answer Question 4 put a cross in the box ☒ .

4 Glaciated upland landscapes are constantly being changed by different processes.

(a) Study Figure 4a in the Resource Booklet.

Identify the landform labelled **Z** on Figure 4a.

(1)

☒ **A** arête

☒ **B** hanging valley

☒ **C** terminal moraine

☒ **D** truncated spur

(b) State **one** type of mass movement process.

(1)

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(c) Explain **one** way in which glaciers transport material.

(2)

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(d) Study Figure 4b in the Resource Booklet.

Examine the advantages and disadvantages of human activities in the glaciated upland landscape shown in Figure 4b.

(8)

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(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 30 MARKS

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SECTION B

Weather Hazards and Climate Change

Answer ALL questions in this section. Write your answer in the spaces provided.

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 ☒.

5 The global climate was different in the past.

(a) Study Figure 5 in the Resource Booklet.

(i) Identify the year with the lowest mean temperature.

(1)

☐ **A** 1150

☐ **B** 1310

☐ **C** 1470

☐ **D** 1920

(ii) Calculate the range of temperatures shown in Figure 5.

You must show your working in the space below.

(2)

..... °C

(b) State **one** type of evidence for natural climate change.

(1)

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(c) Explain **one** negative effect that climate change is having on the environment.

(3)

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(Total for Question 5 = 7 marks)

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6 The atmosphere operates as a global system transferring heat and energy.

(a) Study Figure 6a in the Resource Booklet.

(i) Identify **one** warm ocean current shown in Figure 6a.

(1)

☒ **A** California

☒ **B** Gulf Stream

☒ **C** Labrador

☒ **D** Peru

(ii) Explain **one** way in which ocean currents redistribute heat energy across the Earth.

(2)

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(b) The causes of drought are complex.

(i) Explain **one** human cause of drought.

(4)

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(ii) Explain **one** way in which the government of a country can respond to drought.

(2)

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(c) Hurricanes develop under specific conditions.

(i) Study Figure 6b in the Resource Booklet.

Calculate the number of major hurricanes affecting the USA in 2016.

(1)

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(ii) State **one** condition of the ocean required for a hurricane to form.

(1)

.....

Natural hazards, such as hurricanes, can have serious impacts on people and the environment.

(iii) Study Figure 6c in the Resource Booklet.

Suggest **two** impacts of Hurricane Maria on Dominica.

Use evidence from Figure 6c in your answer.

(4)

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(d) Evaluate the following statement.

> The impacts of hurricanes (tropical cyclones) are less serious in developed countries than in emerging or developing countries.

(8)

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(Total for Question 6 = 23 marks)

TOTAL FOR SECTION B = 30 MARKS

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SECTION C

Ecosystems, Biodiversity and Management

Answer ALL questions in this section. Write your answers in the spaces provided.

Spelling, punctuation, grammar and specialist terminology will be assessed in Question 7e.

7 (a) The biosphere is a vital system.

(i) Define the term **biosphere**.

(1)

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Study Figure 7a below which shows information about selected large-scale ecosystems.

Large-scale ecosystem	Estimated area (million km^2)
Boreal forest	16
Desert	32
Temperate forest	15
Tropical rainforest	22.5
Tropical grassland	21.5
Temperate grassland	10.5
Tundra	7.5

Figure 7a

The estimated area of selected large-scale ecosystems

(ii) Calculate the percentage (%) of the total land area shown in Figure 7a which is covered by temperate forest.

You must show your working in the space below.

(2)

..... %

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(b) Wetlands are one of the UK's main terrestrial ecosystems.

Study Figure 7b below.

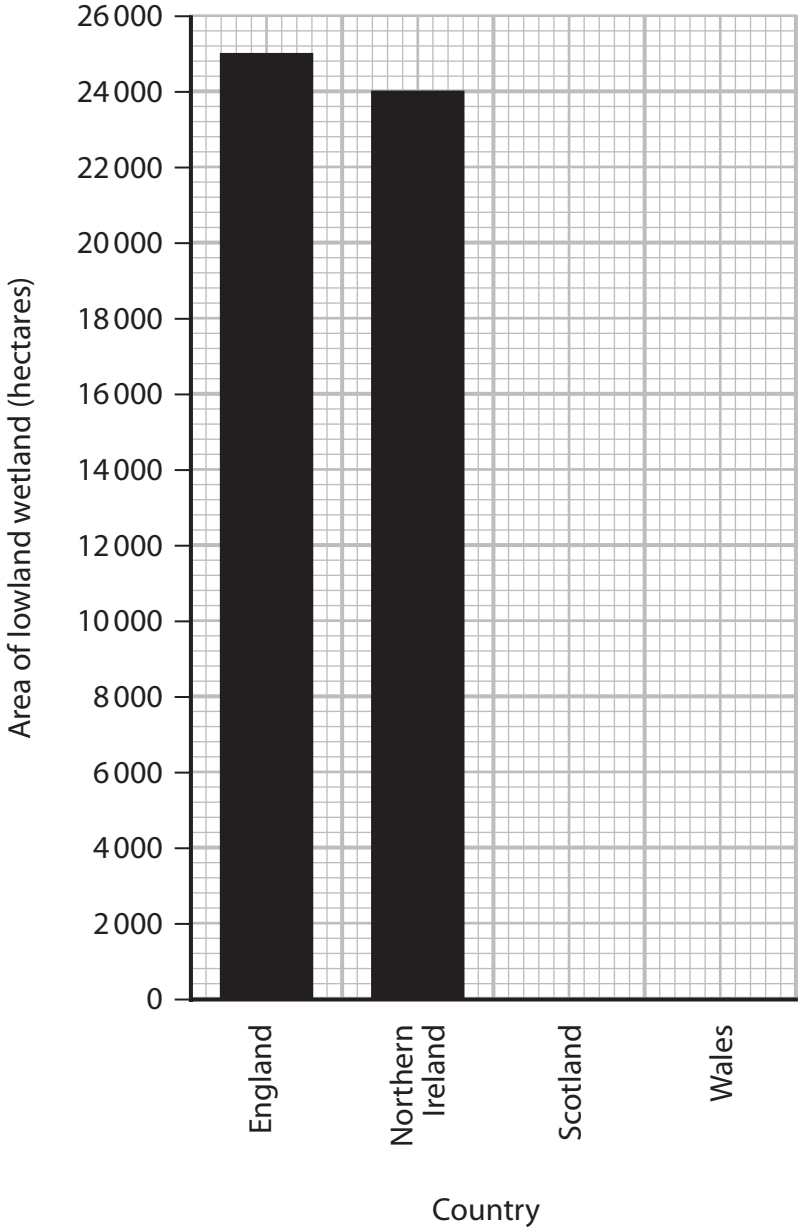

Figure 7b

The area of lowland wetland in the different countries of the UK

(i) Plot the data from the table below on Figure 7b.

(2)

Country	**Area of lowland wetland (hectares)**
Scotland	22 000
Wales	8 000

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(ii) State **one** other main terrestrial ecosystem in the UK.

(1)

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(c) Tropical rainforest ecosystems are under threat.

Study Figure 7c in the Resource Booklet.

(i) Suggest **one** reason why this area of tropical rainforest is under threat.

Use evidence from Figure 7c in your answer.

(3)

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Study Figure 7d below.

Year	Forest cover (km^2)
2000	3 505 932
2015	3 321 065

Figure 7d

Forest cover in the tropical rainforest in Brazil

(ii) Calculate the percentage (%) decrease in forest cover in the tropical rainforest in Brazil between 2000 and 2015.

Answer to **one** decimal place.

You must show your working in the space below.

(2)

..... %

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Study Figure 7e in the Resource Booklet.

(iii) Suggest **two** ways that ecotourism may help the sustainable management of this area of tropical rainforest.

Use evidence from Figure 7e in your answer.

(4)

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(d) Deciduous woodlands have a range of features.

Study Figure 7f in the Resource Booklet.

(i) Suggest **two** ways in which this deciduous woodland has adapted to the environment.

Use evidence from Figure 7f in your answer.

(4)

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(ii) Explain **one** way in which climate change may be a threat to deciduous woodlands ecosystems.

(3)

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In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and for your use of specialist terminology.

(e) Evaluate the following statement.

> Climate is the most important factor influencing the distribution of different large-scale ecosystems.

(8)

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(Spelling, punctuation, grammar and use of specialist terminology = 4 marks)
(Total for Question 7 = 34 marks)

TOTAL FOR SECTION C = 34 MARKS
TOTAL FOR PAPER = 94 MARKS

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Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Monday 18 May 2020

Morning (Time: 1 hour 30 minutes) | Paper Reference **1GA0/01**

Geography A

Paper 1: The Physical Environment

Resource Booklet

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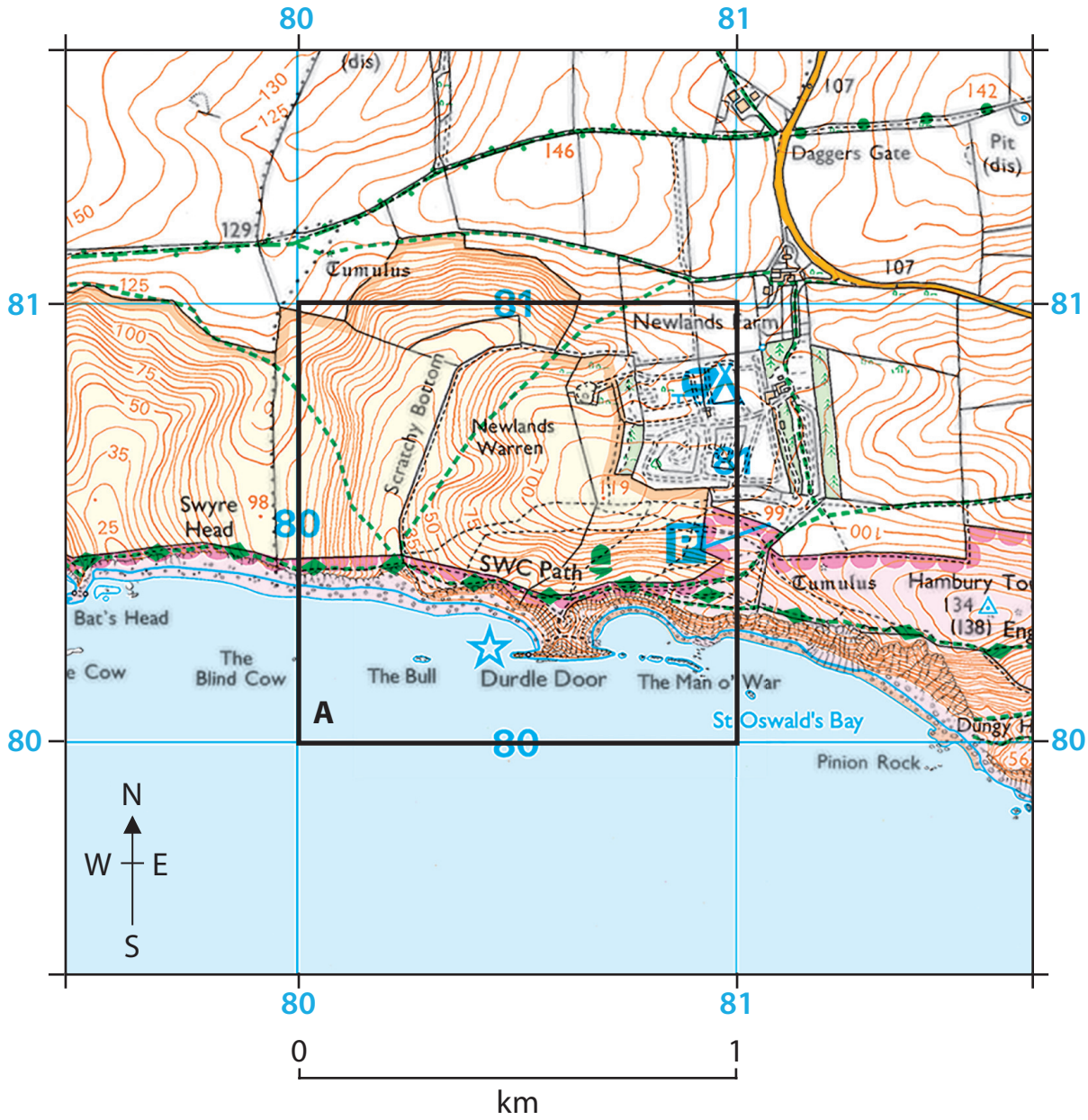
SECTION A

The Changing Landscapes of the UK



Key

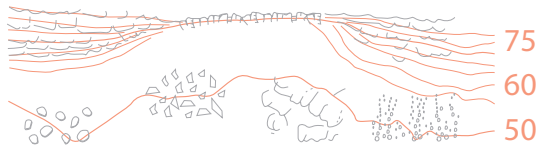
Height and natural features

52 · Ground survey height

284 · Air survey height

Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first height is to the base of the triangulation pillar and the second (in brackets) to the highest natural point of the hill

Vertical face/cliff



Water; mud

Sand; sand and shingle

Figure 1

Map extract showing an area of South Dorset, England

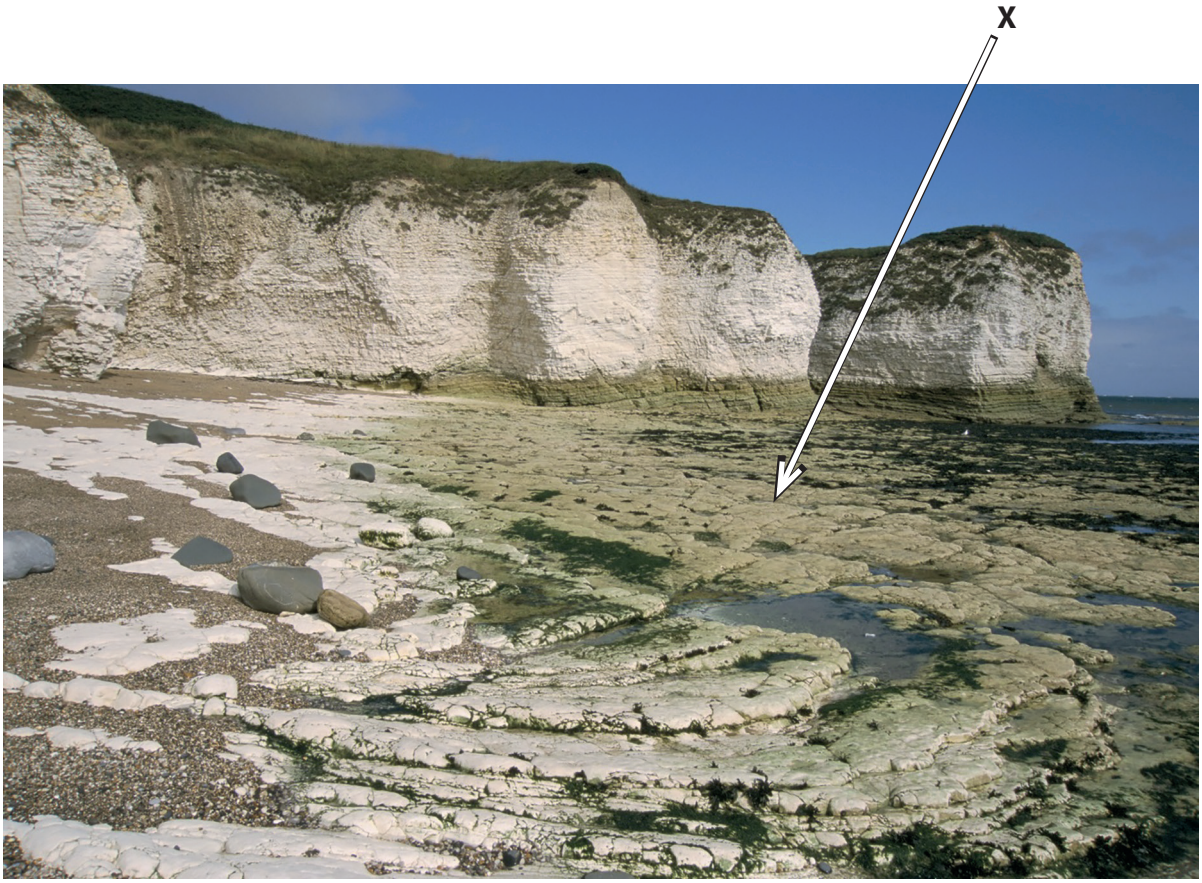


Figure 2a

Flamborough Head in East Yorkshire, England

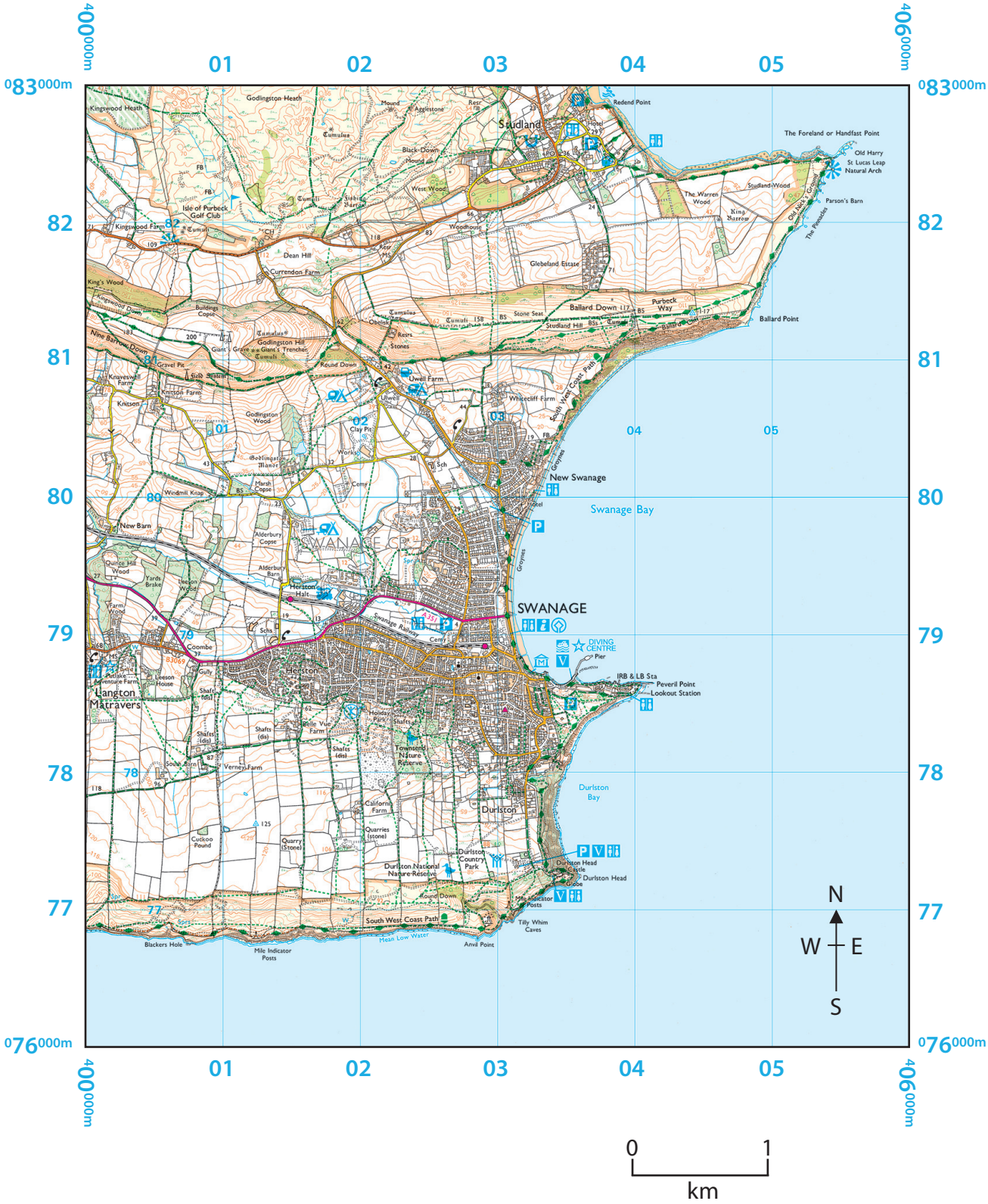


Figure 2b

Map extract of the South Dorset coastline, England

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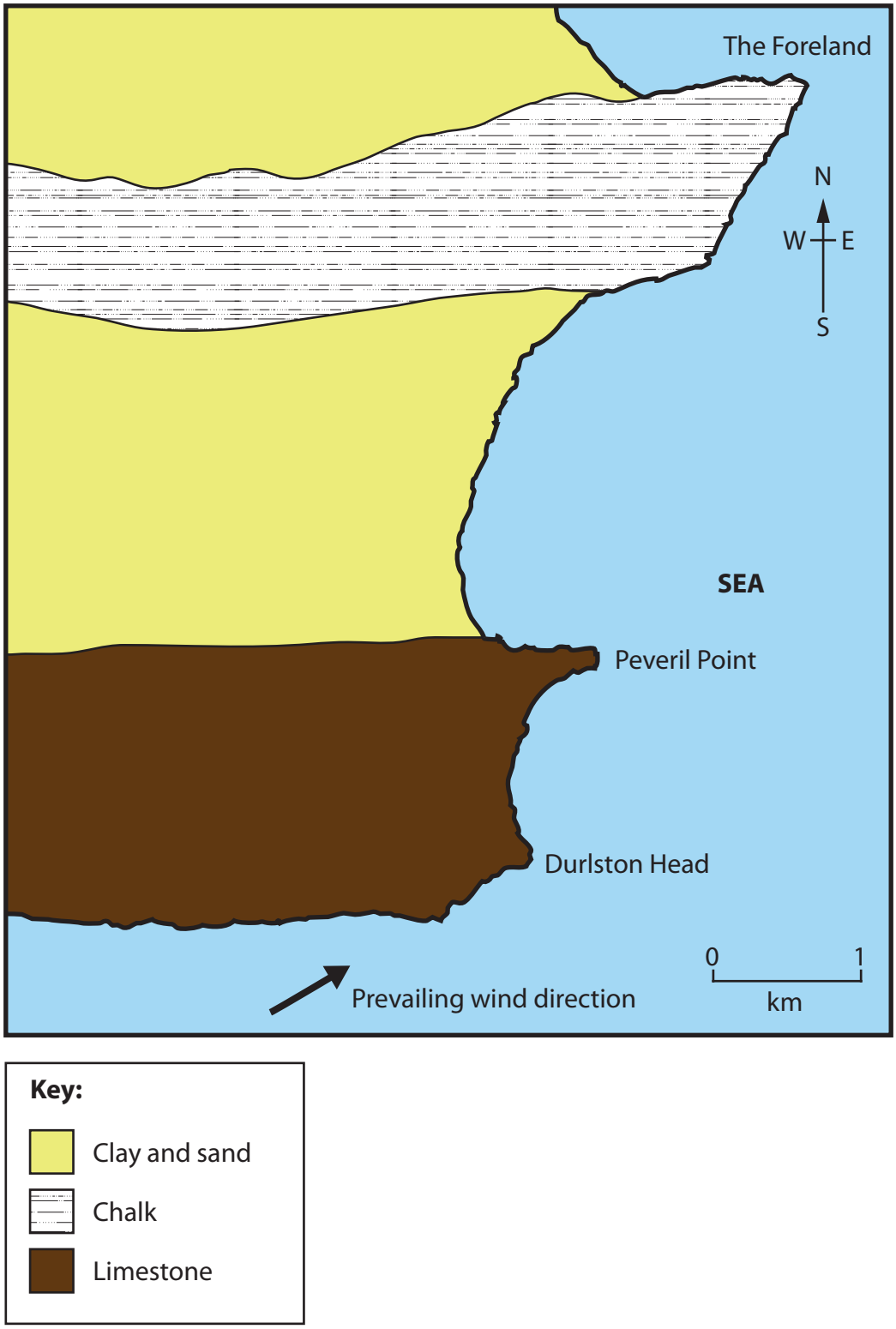

Figure 2c

Sketch map showing the geology along the South Dorset coastline, England

Figure 3a

Meanders on the River Severn in Shropshire, England

KEY:

- Washlands
- Grassland
- Housing
- Direction of river flow
- Woodland
- SCH School
- Boundary of Beam Country Park

Parts of the floodplain were once used for housing and industry but some of the buildings have now been demolished.

The scheme provides protection against a 1 in 25-year flood event.

When the area is not flooded it provides an outdoor space for lots of different activities.

The floodplain provides safe storage of 450 000 m^3 of water – equivalent to 180 Olympic sized swimming pools.

£4.5 million scheme to create an area of washlands along the River Beam and its tributary.

The scheme protects over 570 homes and businesses, including the Ford car plant in Dagenham.

Figure 3b

A map showing the location of washlands in Beam Valley Country Park, Dagenham, England

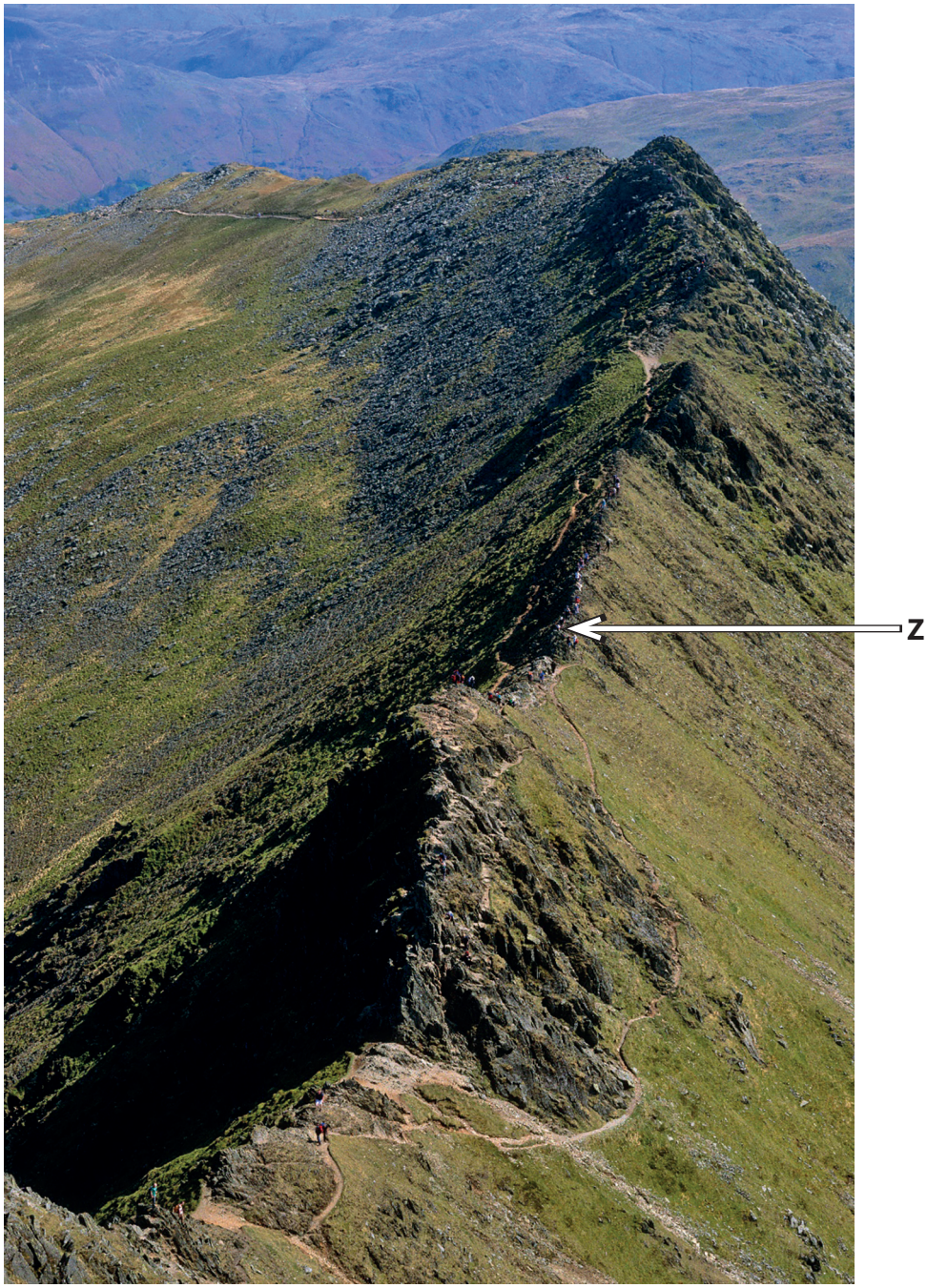

Figure 4a

A glaciated upland landscape in the Lake District, England

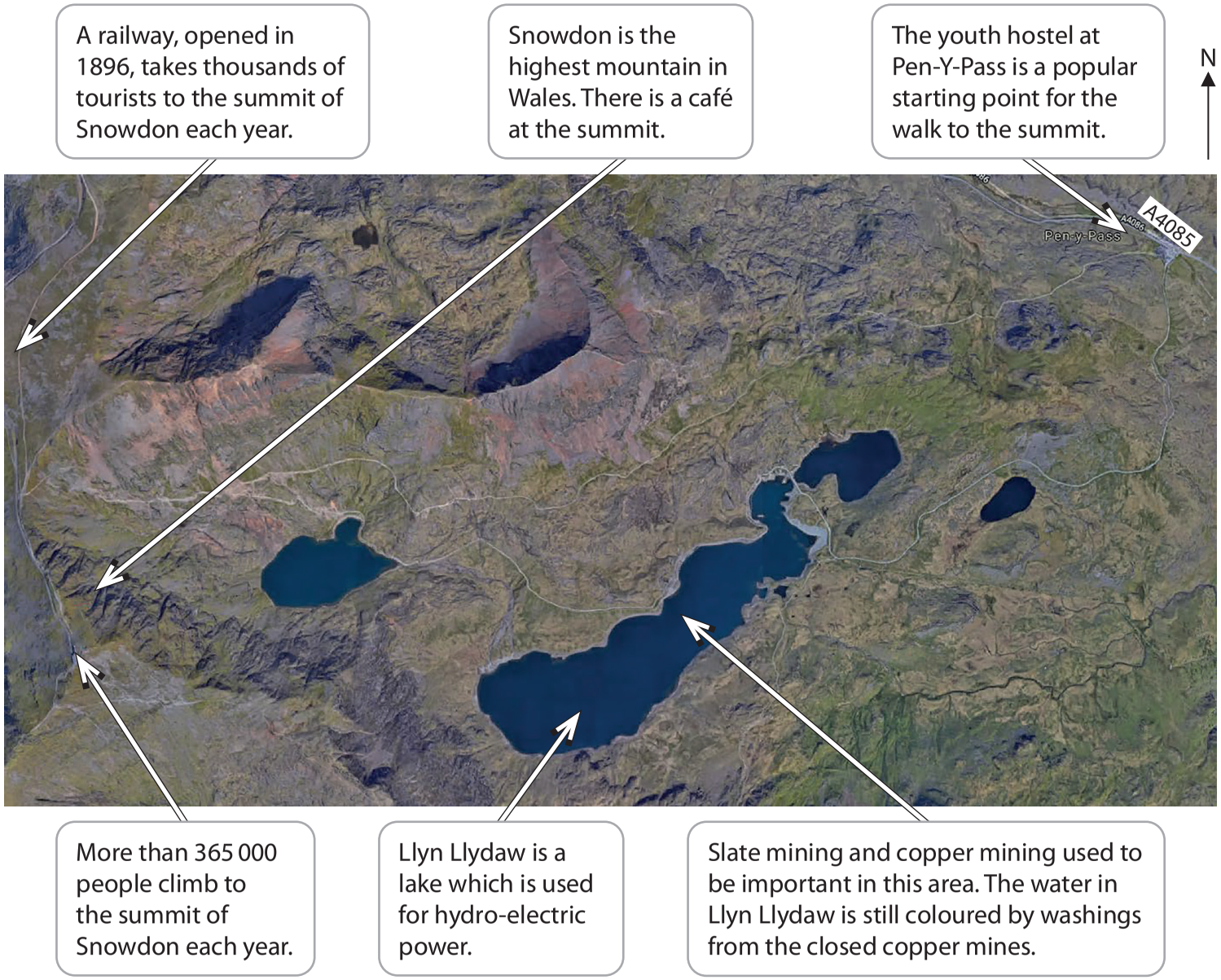

Figure 4b

GIS map extract showing a glaciated upland landscape in Snowdonia, Wales

SECTION B

Weather Hazards and Climate Change

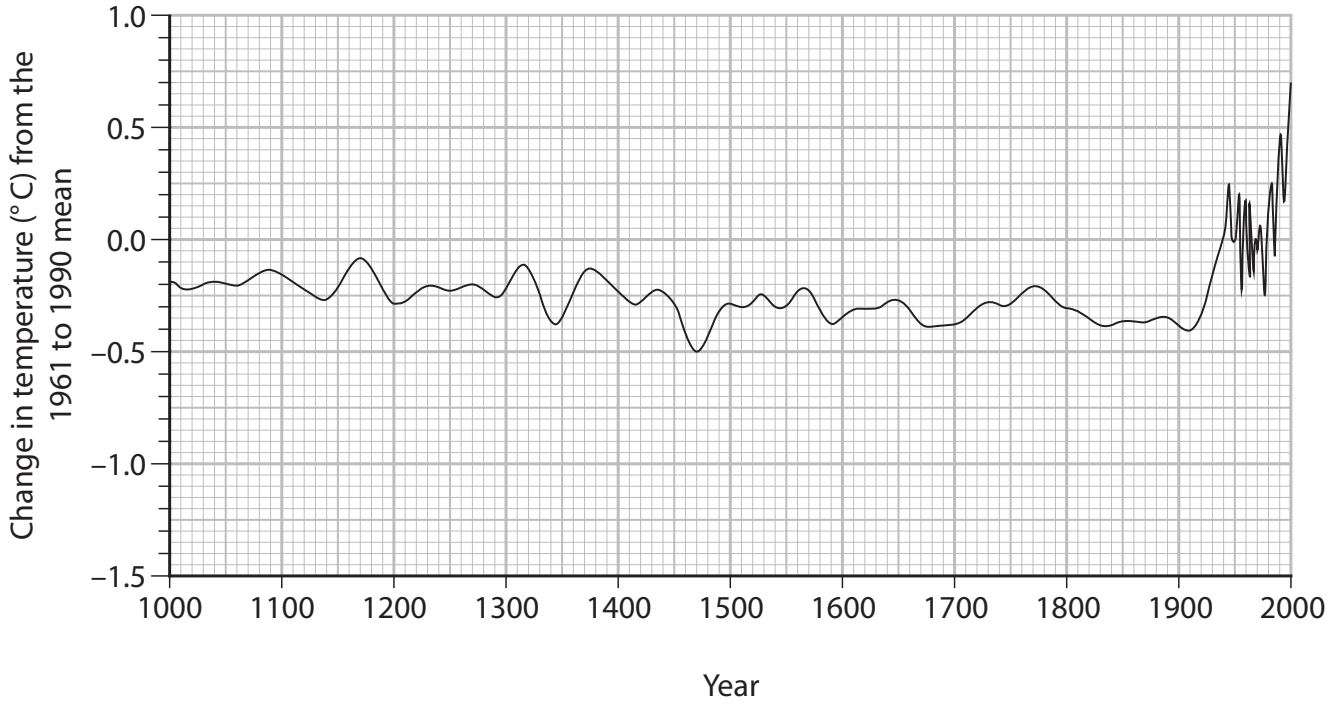

Figure 5

Changes in the mean temperature in the Northern Hemisphere over the past 1000 years

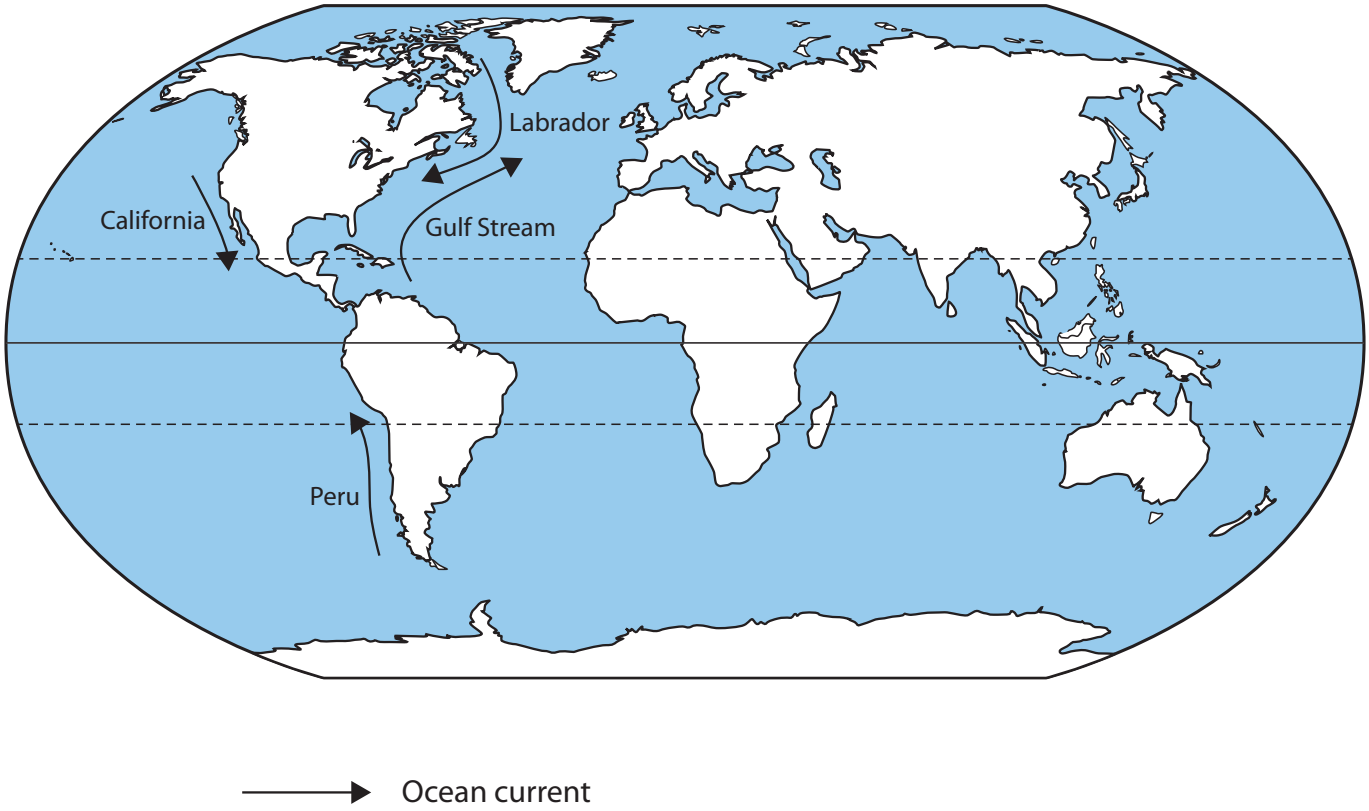

Figure 6a

Selected global ocean currents

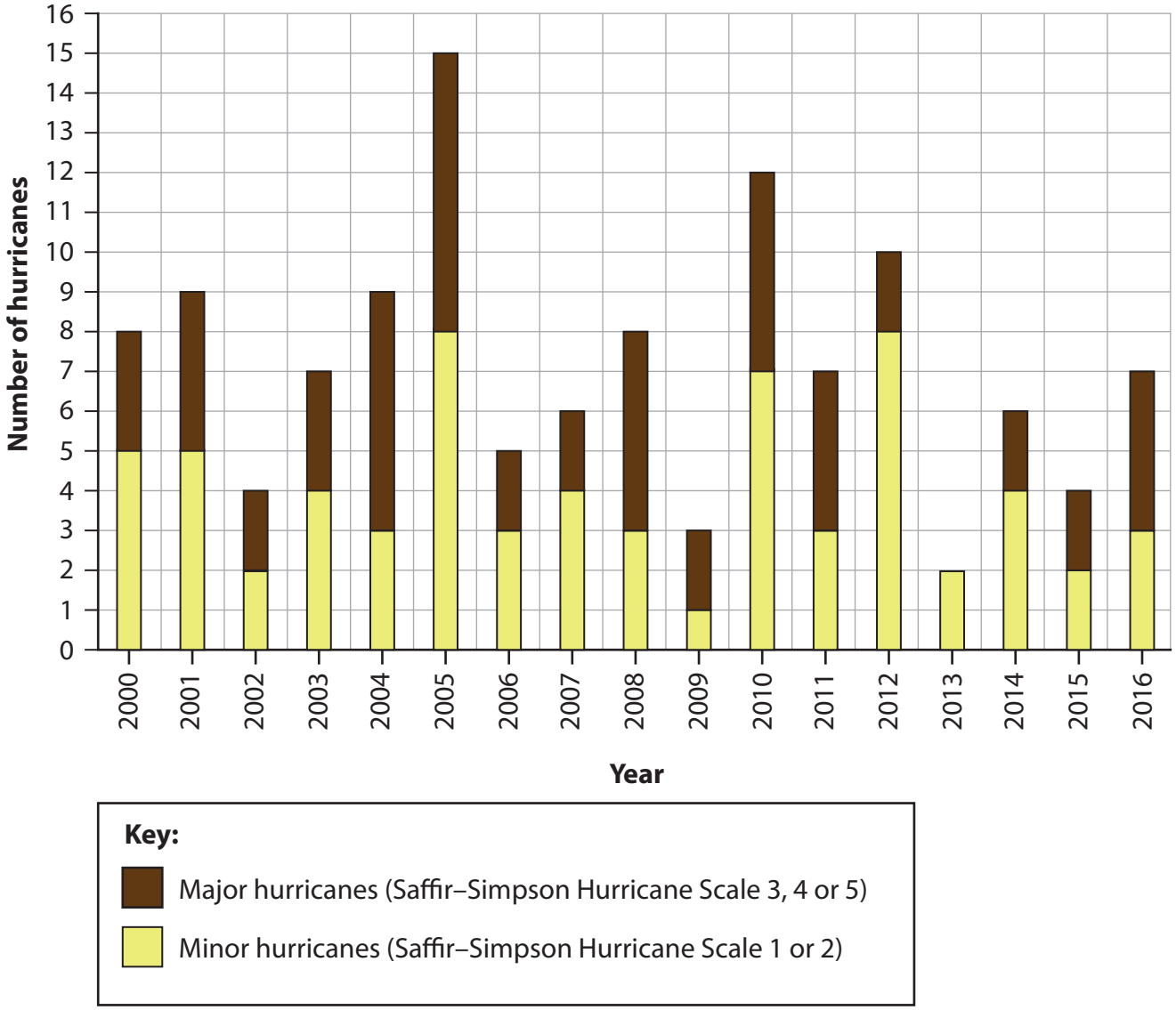

Figure 6b

Number of hurricanes affecting the USA, 2000–2016

Figure 6c

Effects of Hurricane Maria in Dominica, an island in the Caribbean

SECTION C

Ecosystems, Biodiversity and Management

Figure 7c

Human activity in an area of tropical rainforest in Brazil

According to the website, these ecolodges provide unique and authentic cultural experiences in an unspoiled setting. They directly support the sustainable development of local people and help to protect wildlife and create local employment. They respect local construction types and use building materials from the forest.

Figure 7e

Rainforest ecolodge in Ecuador

Figure 7f

An area of deciduous woodland

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Figure 6a Sourced from: http://www.geocraft.com/WVFossils/last_400k_yrs.html

Figure 6b NOAA/NASA Goddard MODIS Rapid Response Team

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