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)

Time 1 hour 30 minutes

Paper reference **1GA0/01**

Geography A

PAPER 1: The Physical Environment

You must have:
Resource booklet (enclosed), 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 and grammar 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 ▶

P70839A

Q:1/1/1/1/1/1/1/1/1/1/1

P 7 0 8 3 9 A 0 1 2 8

Pearson

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 are constantly being changed by different processes.

(a) Name **one** type of metamorphic rock.

(1)

.....

(b) State **one** characteristic of a sedimentary rock.

(1)

.....

(c) Explain **one** reason why igneous rocks often have large crystals.

(2)

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(d) Study Figure 1a in the Resource Booklet.

Figure 1b below is a cross section from 750586 to 790586.

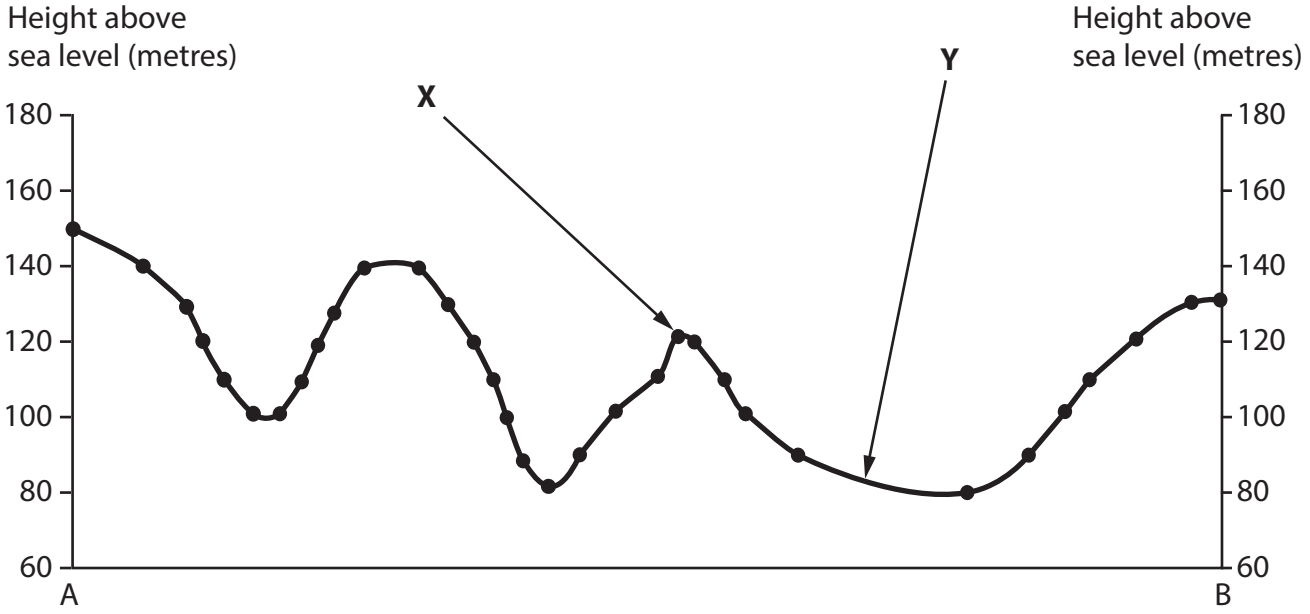

Figure 1b

(i) Identify the land use at **X**.

(1)

- ☒ **A** buildings
- ☒ **B** railway
- ☒ **C** woodland
- ☒ **D** youth hostel

(ii) Identify the settlement at **Y**.

(1)

(Total for Question 1 = 6 marks)

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 physical processes.

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

Identify the landform shown in Figure 2a.

(1)

☒ **A** arch

☒ **B** beach

☒ **C** spit

☒ **D** stack

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

(1)

.....

(c) Explain **one** way that constructive waves can affect beaches.

(2)

.....

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(d) Study Figure 2b in the Resource Booklet.

Examine how different physical processes and human activities may have affected the rates of erosion shown in Figure 2b.

(8)

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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 physical processes.

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

Identify landform **Y**.

(1)

☒ **A** flood plain

☒ **B** gorge

☒ **C** interlocking spurs

☒ **D** oxbow lake

(b) State **one** type of sediment transportation process.

(1)

.....

(c) Explain **one** reason why sediment size usually decreases downstream.

(2)

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(d) Study Figures 3b and 3c in the Resource Booklet.

Examine the role of erosion processes and geology in the formation of the waterfalls and gorge shown in Figures 3b and 3c.

(8)

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(Total for Question 3 = 12 marks)

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 physical processes.

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

Identify landform **Z**.

(1)

- ☒ **A** arête
- ☒ **B** corrie
- ☒ **C** drumlin
- ☒ **D** truncated spur

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

(1)

.....

(c) Explain **one** impact of freeze thaw weathering on landscapes.

(2)

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(d) Study Figures 4b and 4c in the Resource Booklet.

Examine the role of erosional processes in the formation of the glacial trough shown in Figures 4b and 4c.

(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. 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 ☒.

5 Some locations are more vulnerable to drought than others.

(a) Study Figure 5a in the Resource Booklet.

(i) Identify the year that the rainfall was furthest below the mean.

(1)

☒ **A** 1955

☒ **B** 1968

☒ **C** 1984

☒ **D** 2003

(ii) Calculate the range of the rainfall between 1990 and 2015.

Answer to **one** decimal place.

You must show your working in the space below.

(2)

.....cm / month

(b) Study Figure 5b in the Resource Booklet.

Explain **one** impact of drought on people and **one** impact on the environment in South east Australia.

You must use evidence from Figure 5b in your answer.

(4)

People

Environment

(Total for Question 5 = 7 marks)

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

(a) Name **one** of the global atmospheric circulation cells.

(1)

.....

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

(i) Identify the amount of solar energy received (kWh/m^2) per day at **X**.

(1)

☒ **A** 2.2–2.9

☒ **B** 3.8–4.5

☒ **C** 5.4–6.1

☒ **D** 6.2–6.9

(ii) Explain **one** reason why location **X** receives a different amount of solar energy than location **Y**.

You must use evidence from Figure 6a in your answer.

(3)

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(c) Explain **one** meteorological cause of drought.

(3)

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(d) Tropical cyclones (hurricanes and typhoons) develop under specific conditions and in certain locations.

Study Figure 6b in the Resource Booklet.

(i) Identify which **one** of the following dates had the strongest wind speeds.

(1)

☒ **A** 12 Sept

☒ **B** 14 Sept

☒ **C** 16 Sept

☒ **D** 18 Sept

(ii) Calculate the total distance travelled by Typhoon Ompong between 12–18 September 2018.

Answer to **one** decimal place.

You must show your working in the space below.

(2)

.....km

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

(i) Identify the year with the highest number of tropical cyclones.

(1)

.....

(ii) Suggest **one** reason for the overall change in the frequency of tropical cyclones between 1970 and 2020.

You must use evidence from Figure 6c in your answer.

(3)

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(f) Evaluate the following statement.

Human activity is the main cause of global climate change.

(8)

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(Total for Question 6 = 23 marks)

TOTAL FOR SECTION B = 30 MARKS

SECTION C

Ecosystems, Biodiversity and Management

Answer ALL questions. 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 ☒.

Spelling, punctuation, grammar and specialist terminology will be assessed in Question 7(h).

7 Large-scale ecosystems are found in different parts of the world.

(a) Study Figure 7a in the Resource Booklet.

Identify which **one** of the following describes the climate in the tundra ecosystem.

(1)

- ☒ **A** Low precipitation and high temperatures
- ☒ **B** High precipitation and low temperatures
- ☒ **C** Low precipitation and low temperatures
- ☒ **D** High precipitation and high temperatures

(b) Explain **one** way that altitude may affect the distribution of the temperate forest ecosystem.

(2)

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(c) Marine ecosystems in the UK are an important resource.

Study Figure 7b below.

Seven main fish species caught	Weight of fish caught (tonnes)
Mackerel	152 100
Herring	75 500
Blue whiting	60 800
Haddock	33 800
Cod	29 000
Monkfish	17 700
Saithe	15 300
Total catch	384 200

Figure 7b

Seven main fish species caught by UK vessels in 2019

(i) Calculate the weight of cod caught as a percentage of the total catch.

Answer to **one** decimal place.

You must show your working in the space below.

(2)

.....%

(ii) Explain **one** way humans have damaged marine ecosystems.

(2)

(d) Name **one** of the main terrestrial ecosystems in the UK.

(1)

(e) Study Figure 7c in the Resource Booklet.

Suggest **one** way that the vegetation shown in Figure 7c has adapted to the tropical rainforest environment.

You must use evidence from Figure 7c in your answer.

(3)

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(f) Explain **two** ways that climate change is a threat to the biodiversity of tropical rainforests.

(4)

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2 .....

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(g) Deciduous woodlands show a range of distinguishing features.

Study Figures 7d and 7e below.

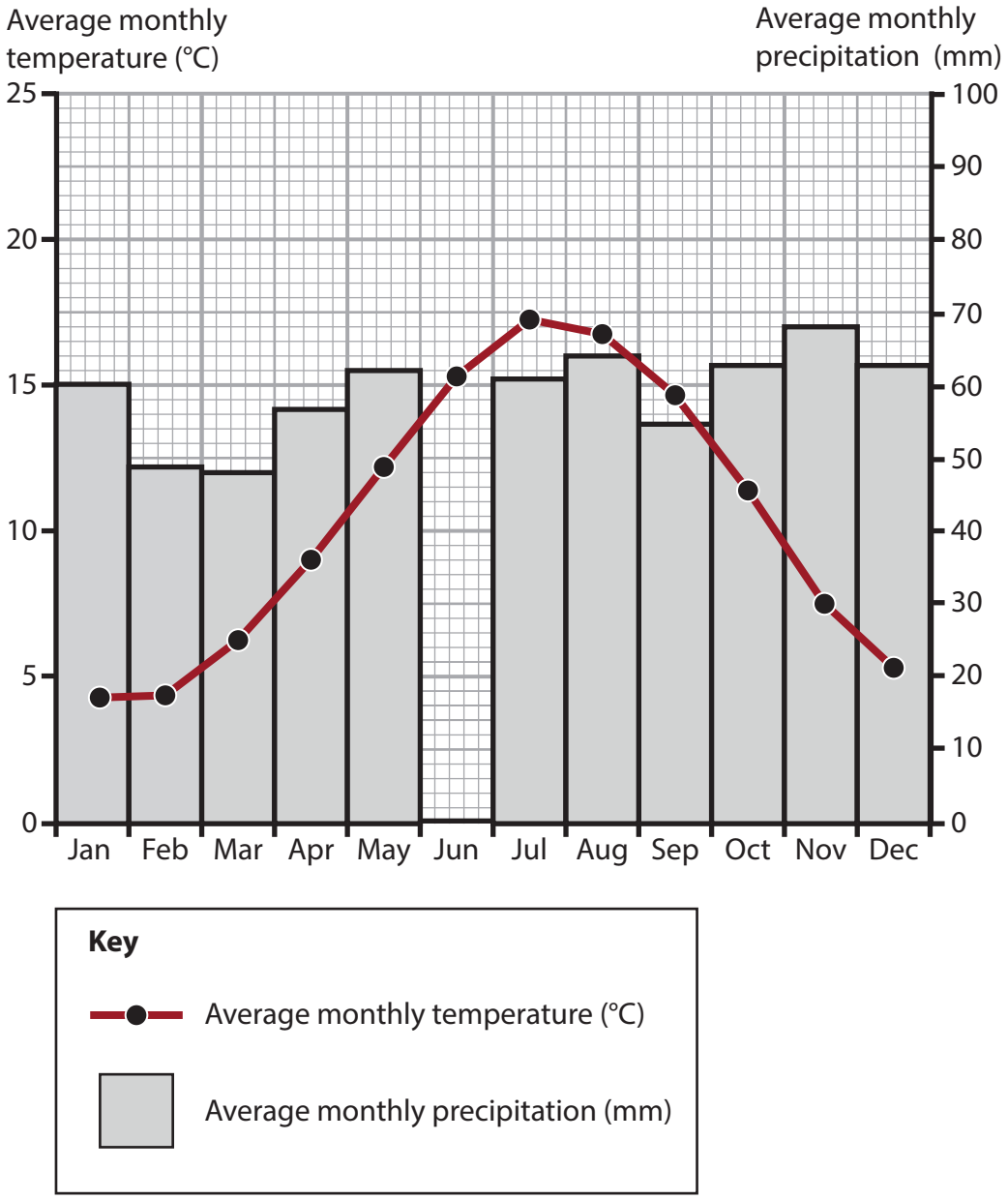

Figure 7d

Climate graph for an area of deciduous woodland in the UK

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec
Average monthly temperature (°C)	4.6	4.7	6.4	9.0	12.3	15.3	17.3	16.8	14.6	11.4	7.5	5.3
Average monthly precipitation (mm)	60	49	48	57	62	60	61	64	55	63	68	63

Figure 7e

Data for the climate graph shown in Figure 7d

(i) Plot the June precipitation total on Figure 7d.

(1)

(ii) Calculate the mean of the average monthly temperatures shown in Figure 7e.

Answer to **one** decimal place.

You must show your working in the space below.

(2)

.....°C

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(iii) Explain **two** ways that deciduous woodland ecosystems can provide goods and services.

(4)

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2 .....

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

(h) Assess the importance of the impact of human activity on deciduous woodland 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

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

Time 1 hour 30 minutes

Paper reference **1GA0/01**

Geography

PAPER 1: The Physical Environment

Resource Booklet

Do not return this Booklet with the question paper.

Turn over ▶

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P 7 0 8 3 9 A

Pearson

SECTION A

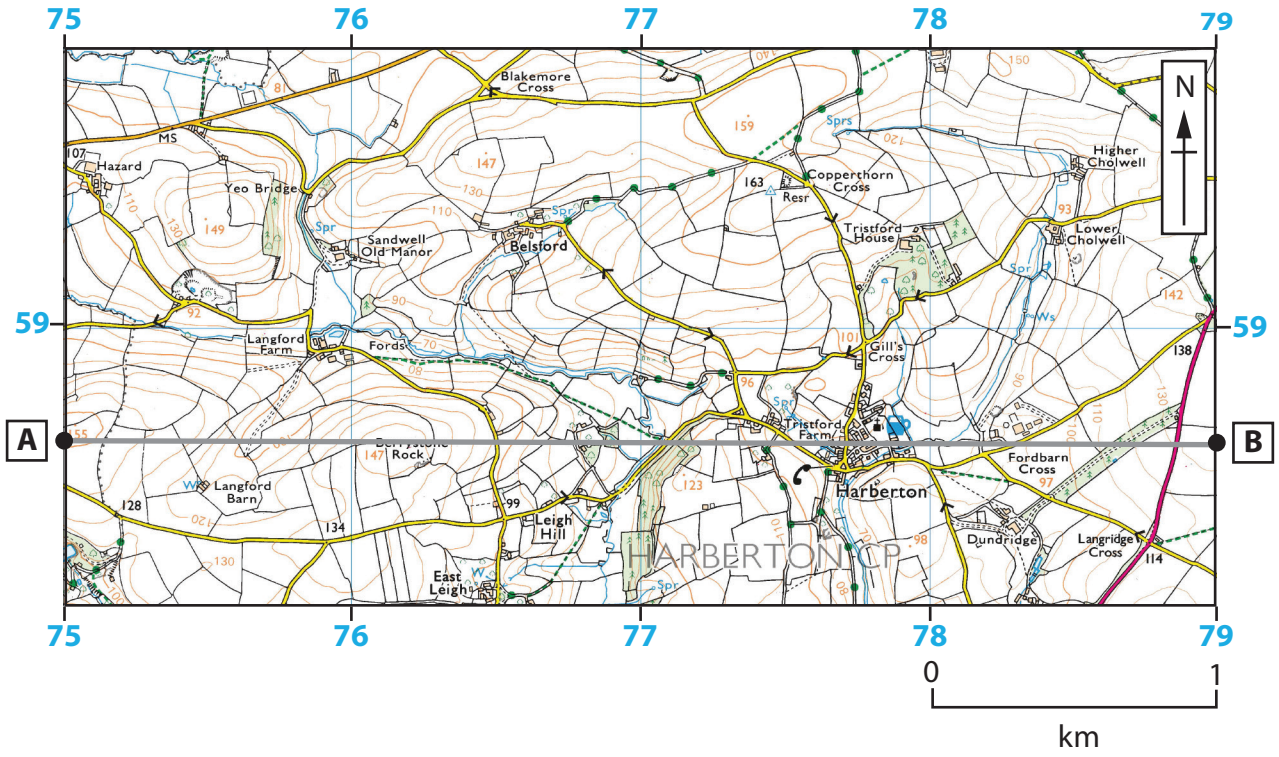


Figure 1a

An area in Devon, England

Key for Figure 1a

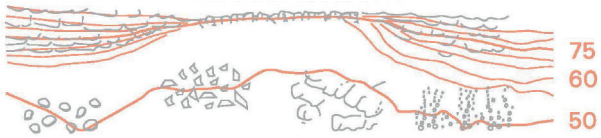
HEIGHTS AND NATURAL FEATURES

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



Boulders **Loose rock** **Outcrop** **Scree**

Water; mud

Sand; sand and shingle

VEGETATION

Vegetation limits are defined by positioning of symbols

Coniferous trees

Non-coniferous trees

Coppice

Key for Figure 1a continued

GENERAL FEATURES

Building; important building

Glasshouse

Youth hostel

Bunkhouse / camping barn / other hostel

Bus or coach station

ROADS AND PATHS **Not necessarily rights of way**

A 30 Main road

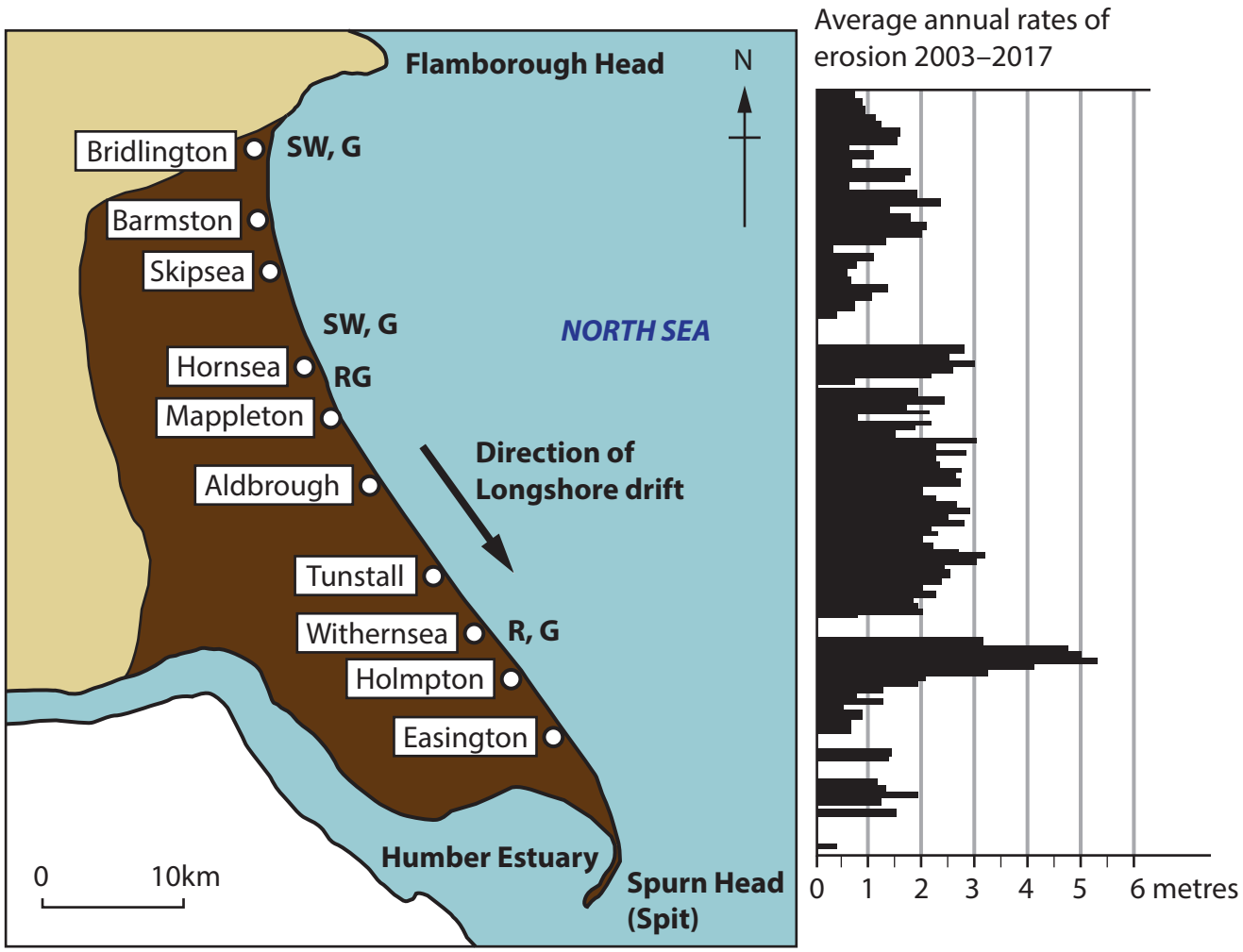
Road generally less than 4 m wide

Railway

Multiple track
Single track
} Standard gauge

Figure 2a

Durdle Door, Dorset, England



Key

Chalk (less easily eroded)

Clay (more easily eroded)

SW	Sea wall
RG	Rock groyne
R	Revetment
G	Groynes

Figure 2b

Coastal erosion along the Holderness coastline in England

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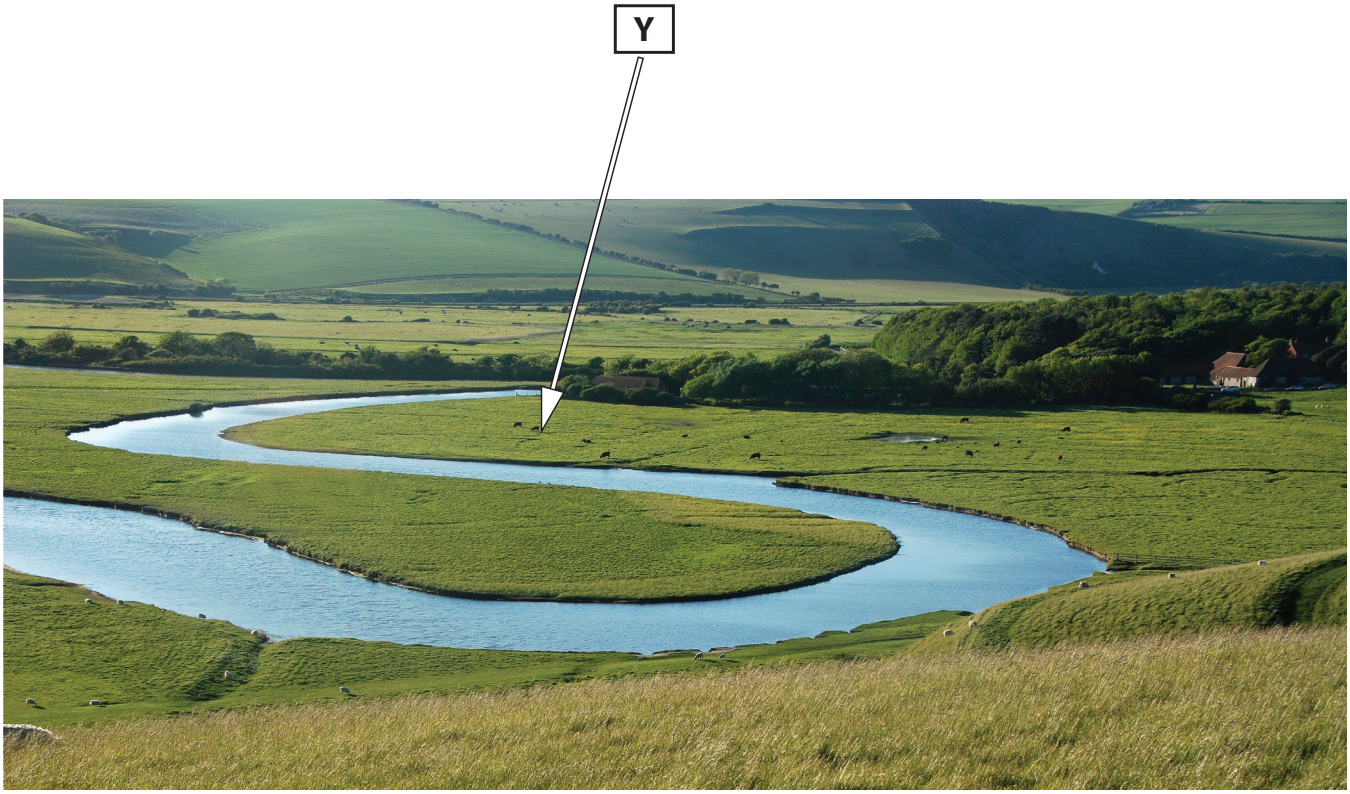


Figure 3a

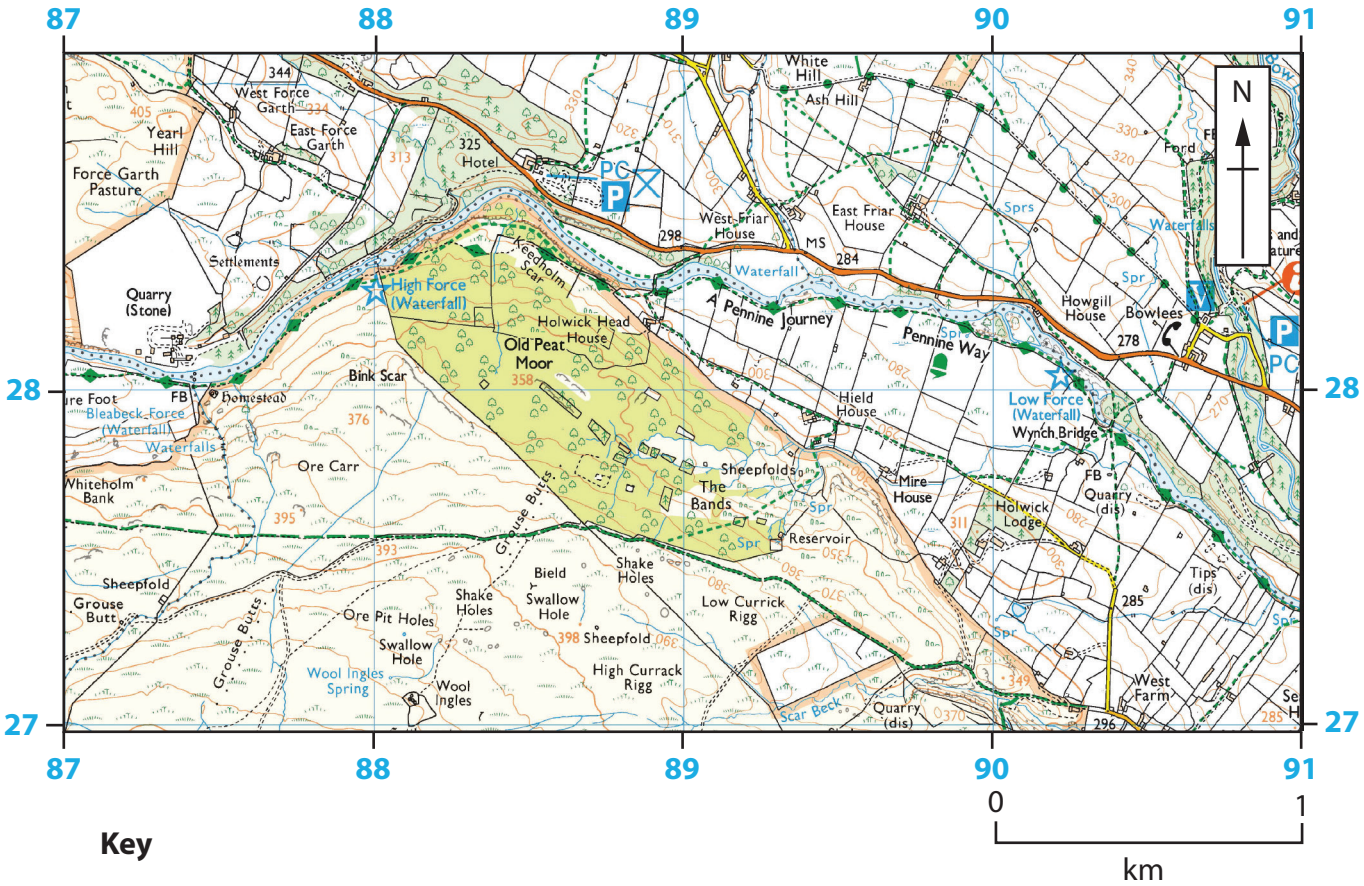
River Cuckmere, Sussex, England

The rock at the top of the waterfall is igneous.

The rock at the bottom of the waterfall is sedimentary.

Figure 3b

High Force waterfall, River Tees, England



Key

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284 · Air survey height

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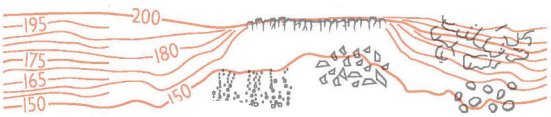
Vertical face/cliff



Boulders **Loose rock** **Outcrop** **Scree**

Water; mud

Sand; sand and shingle

VEGETATION

Vegetation limits are defined by positioning of symbols

Coniferous trees

Non-coniferous trees

Coppice

Orchard

Scrub

Bracken, heath or rough grassland

Marsh, reeds or saltings

Figure 3c

Location of High Force waterfall

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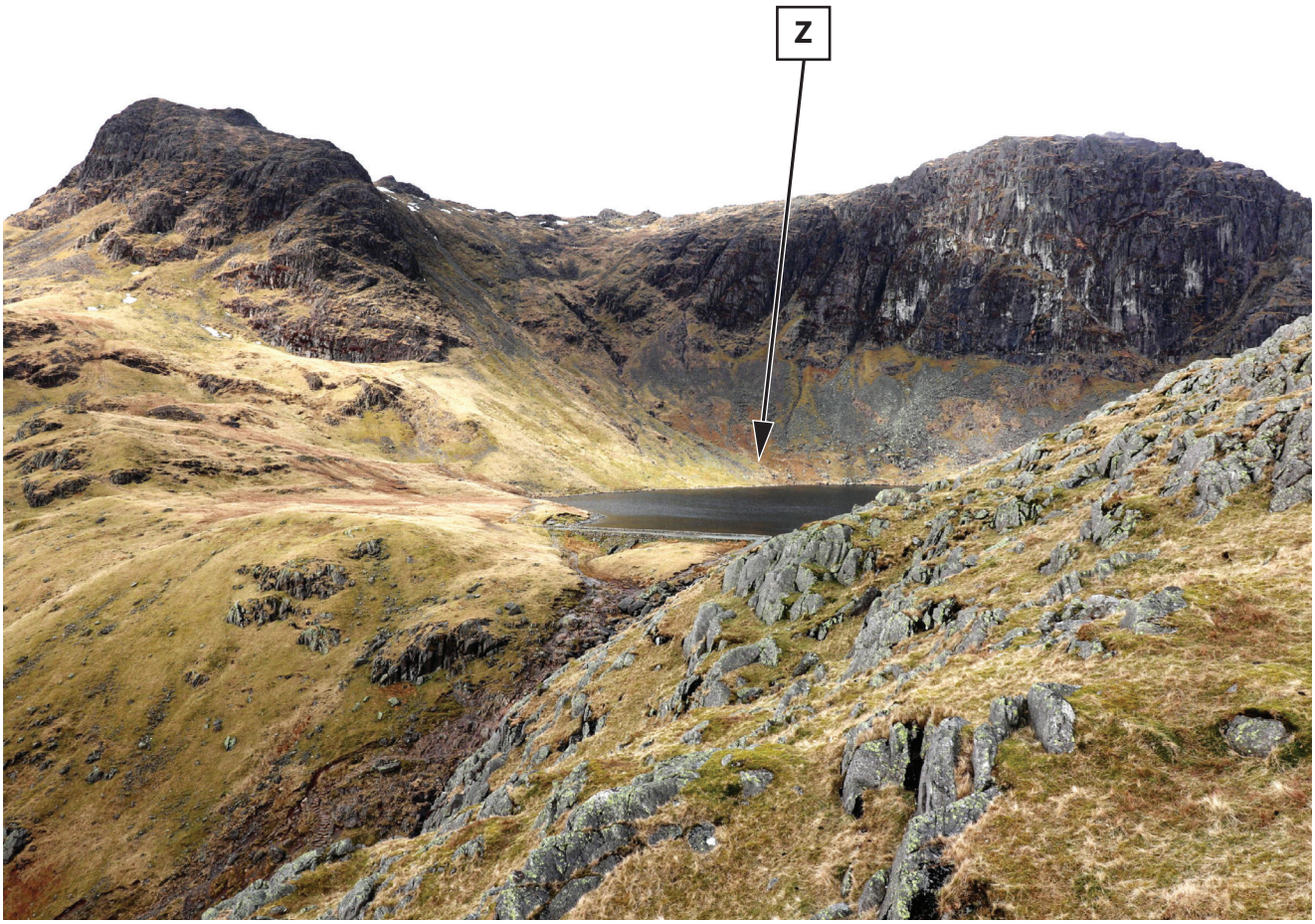
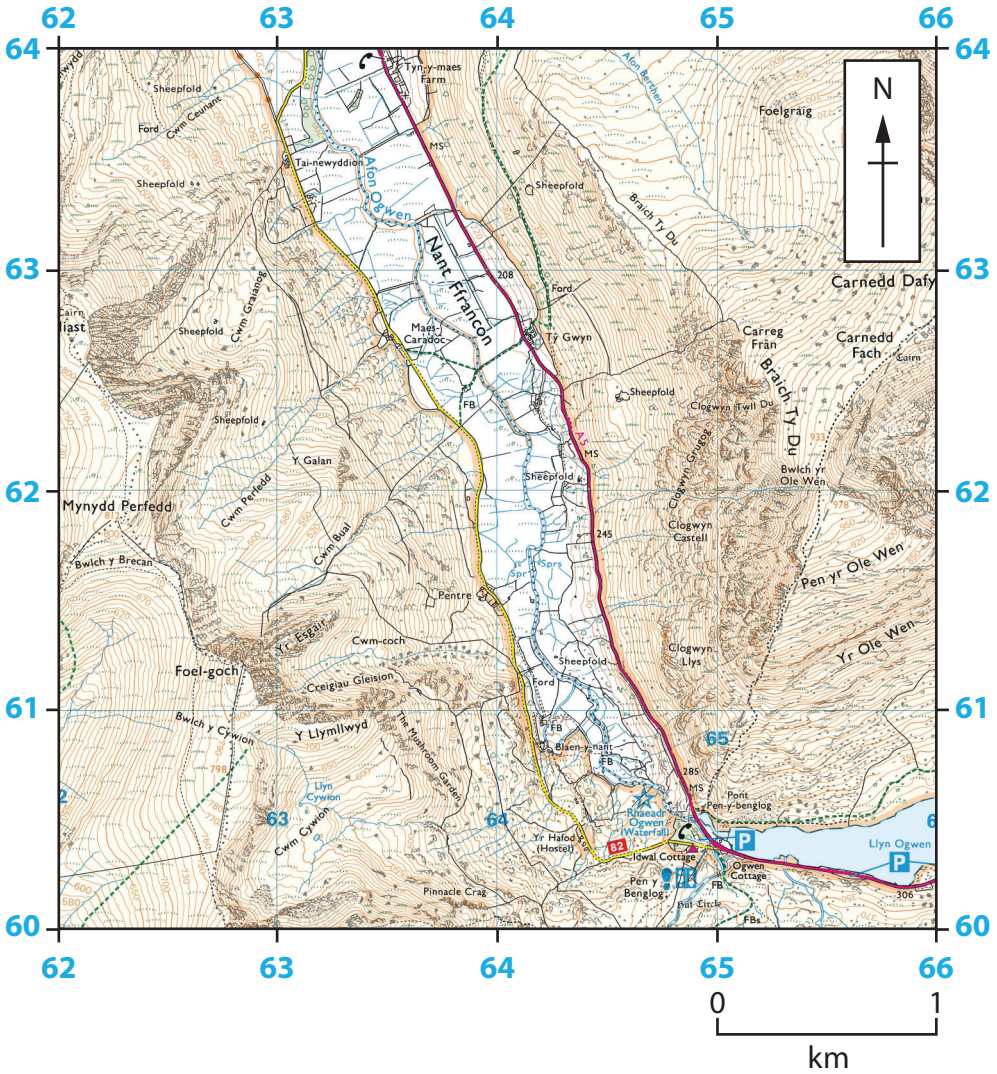


Figure 4a

Stickle Ghyll, Lake District, England

Figure 4b

Nant Ffrancon, a glacial trough in Snowdonia, Wales



Key

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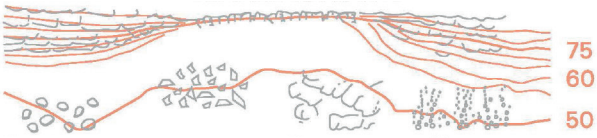
Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first height is to the base of the triangulation pillar and the second (in brackets) to the highest natural point of the hill.

Vertical face/cliff



Boulders **Loose rock** **Outcrop** **Scree**

Water; mud

Sand; sand and shingle

VEGETATION

Vegetation limits are defined by positioning of symbols

Coniferous trees

Non-coniferous trees

Coppice

Orchard

Scrub

Bracken, heath or rough grassland

Marsh, reeds or saltings

Figure 4c

Location of Nant Ffrancon

SECTION B

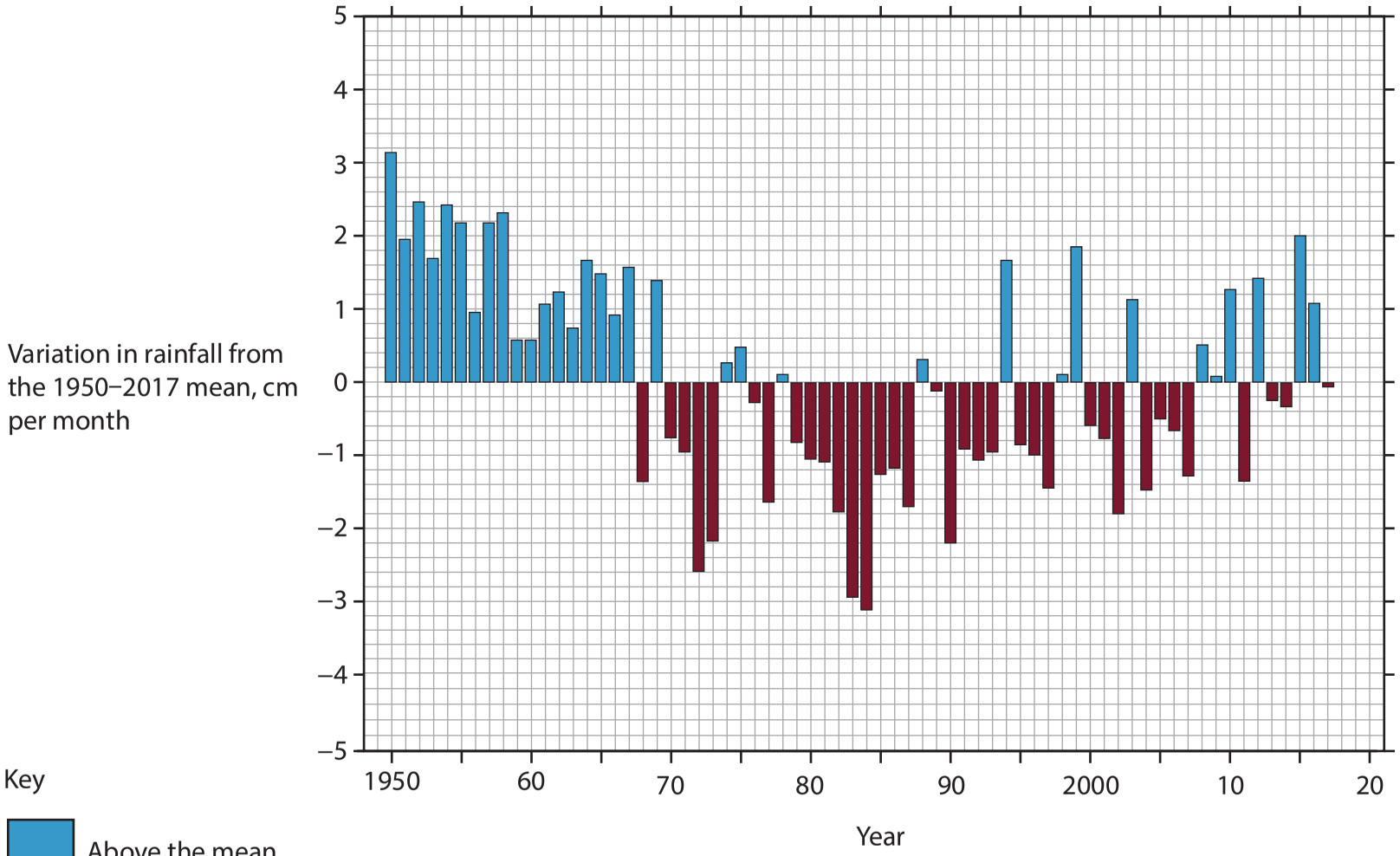


Figure 5a

Variations in annual rainfall in the Sahel region of Africa, 1950–2017

South east Australia was affected by a major drought.

Farmers had to provide emergency food for their animals.

There were 15 months of below mean rainfall.

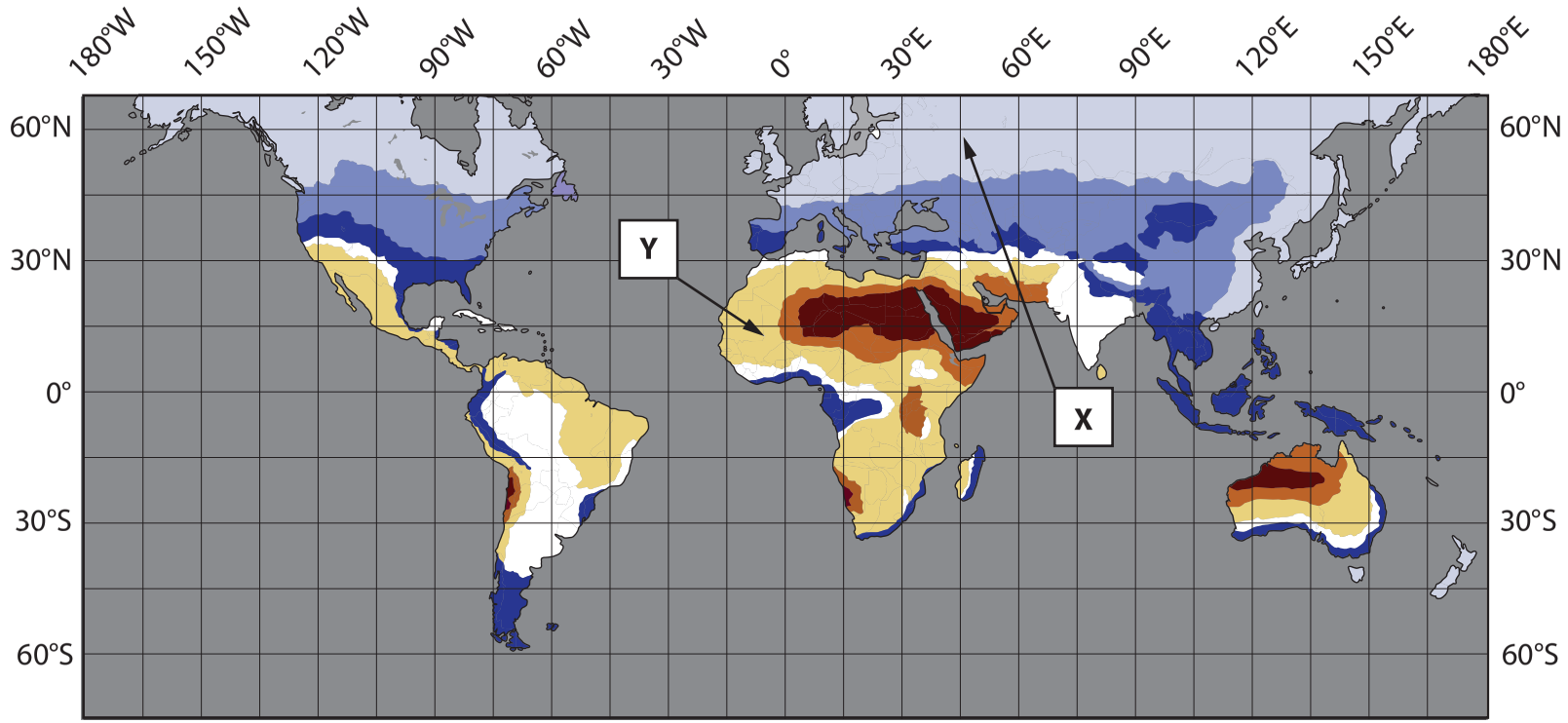
Many trees in the area died.

The incomes of many farmers fell.

Many farmers became physically and mentally ill.

Figure 5b

Impacts of drought in South east Australia in 2018–2019



Key: Solar energy received per day (kWh/m^2)

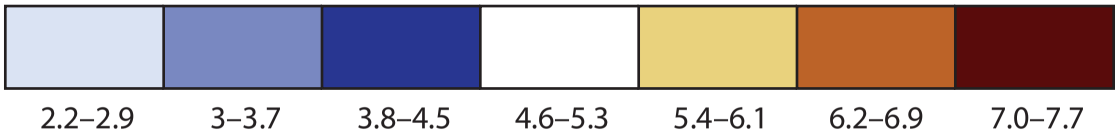
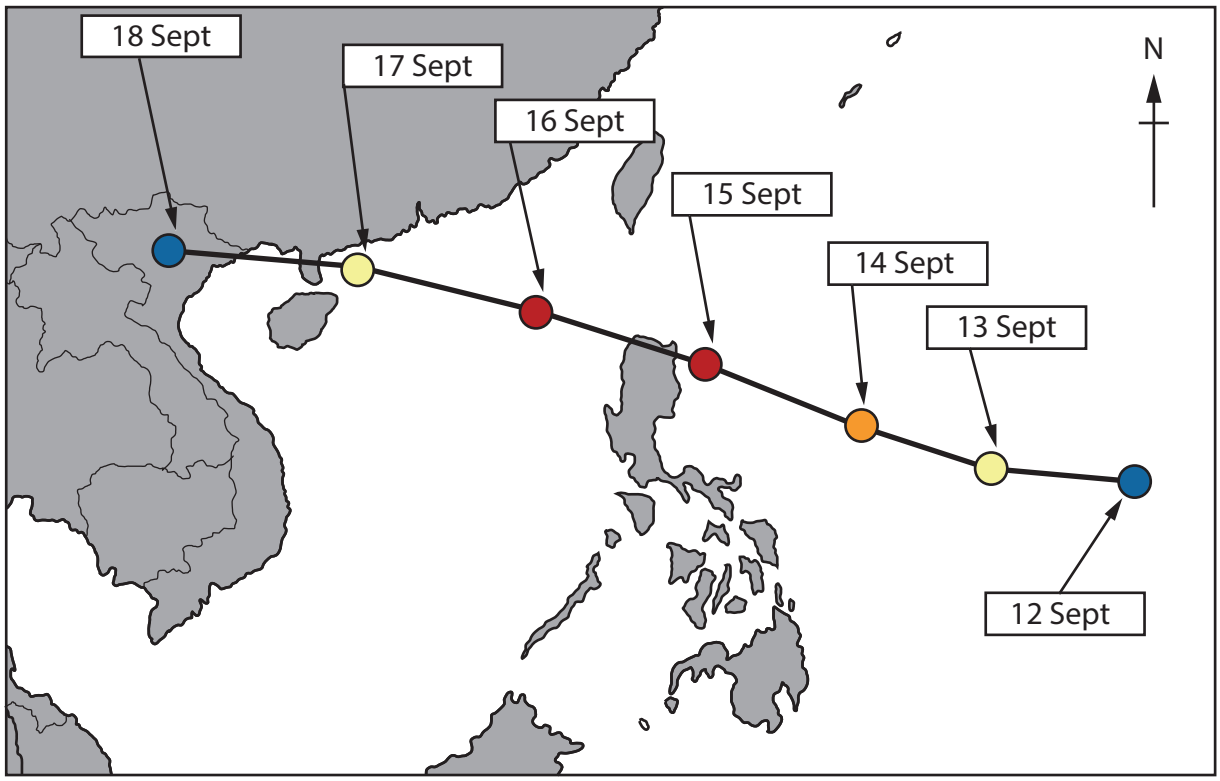


Figure 6a

Solar energy received per day (kWh/m^2)



Key

Typhoon

Track of typhoon

Scale

1cm = 300km

Saffir – Simpson Hurricane Scale

Category	Wind speed (km/h)	
1	119–153	
2	154–177	
3	178–208	
4	209–251	
5	252 or higher	

Figure 6b

Track of Typhoon Ompong, September 2018

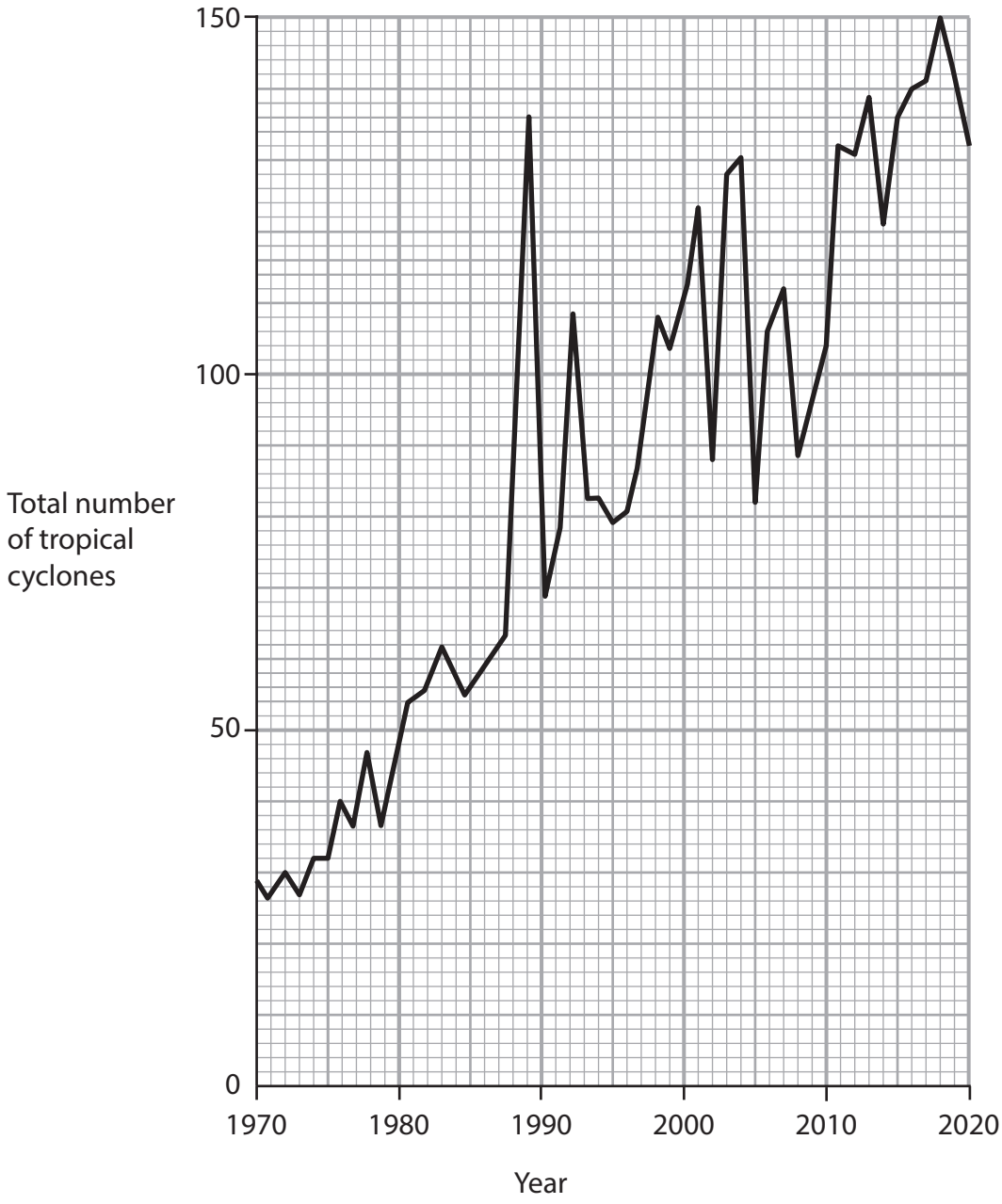


Figure 6c

Total number of tropical cyclones worldwide, 1970–2020

SECTION C

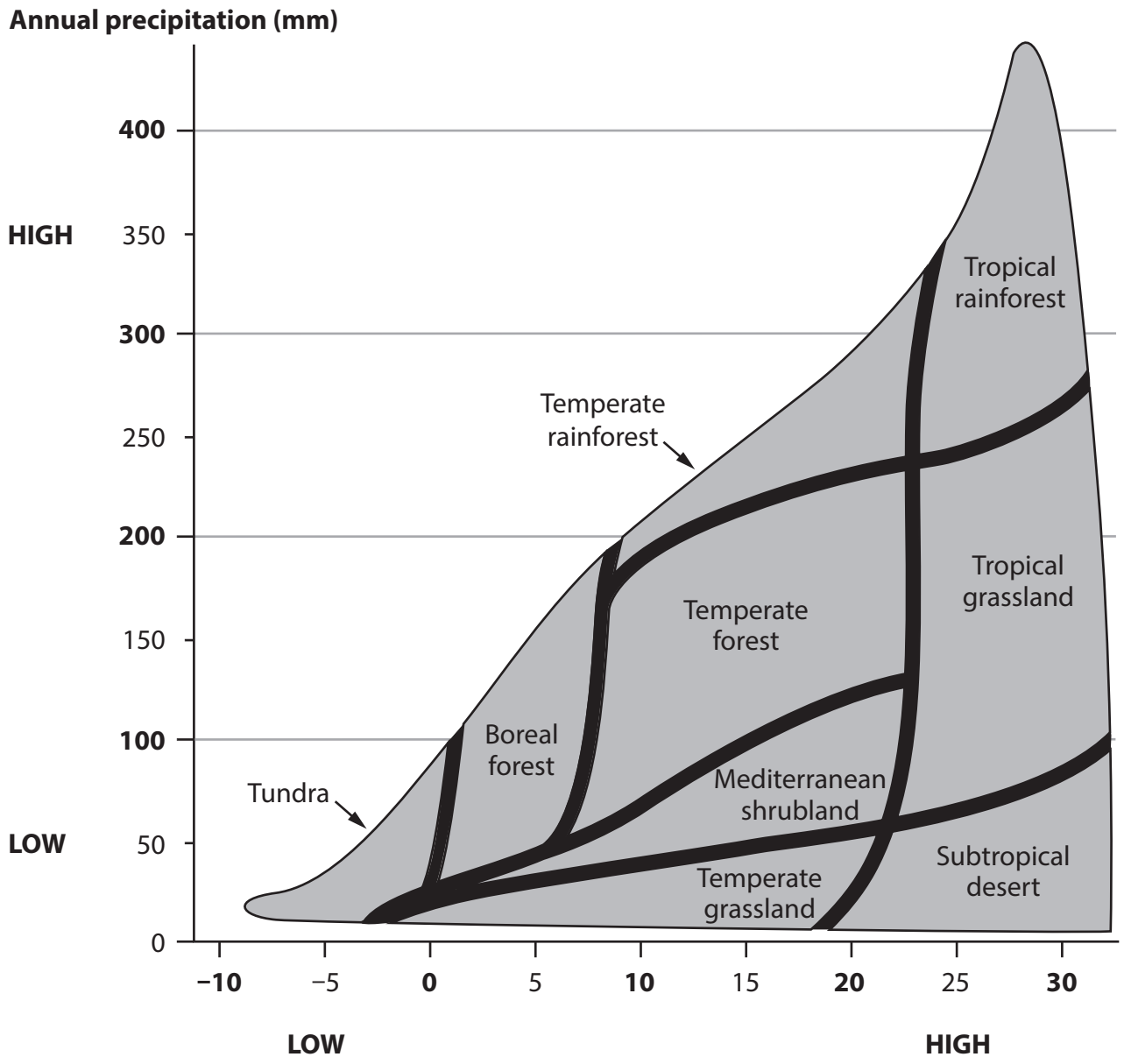


Figure 7a

Climate characteristics in large-scale ecosystems

Figure 7c

Tropical rainforest vegetation in Peru

Acknowledgements
Pearson Education Ltd. gratefully acknowledges all the following sources used in the preparation of this paper:
Figure 1a Ordnance Survey
Figure 1b adapted from Ordnance Survey
Figure 2a ©Fern Doyle/Shutterstock
Figure 2b http://urbanrim.org.uk/Holderness.htm
Figure 3a © imageBROKER/Alamy Stock Photo
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Figure 3c Ordnance Survey
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Figure 4b ©Image Professionals GmbH/Alamy Stock Photo
Figure 4c Ordnance Survey
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Figure 5b ©Image Professionals GmbH/Alamy Stock Photo
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Figure 6c https://www.who.int/bulletin/volumes/90/2/11-088302/en/
Figure 7b https://www.statista.com/chart/23651/quantity-of-fish-landed-by-uk-vessels-in-the-uk-and abroad
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