

Please check the examination details below before entering your candidate information						
Candidate surname	Other names					
Pearson Edexcel Level 1/Level 2 GCSE (9–1)	Centre Number <table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>					
	Candidate Number <table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>					
Tuesday 21 May 2019						
Afternoon (Time: 1 hour 30 minutes)	Paper Reference 1GA0/01					
Geography A Paper 1: The Physical Environment						
You must have: Resource Booklet (enclosed) Ordnance Survey Map Extract (enclosed), Calculator	Total Marks <table border="1"><tr><td></td></tr></table>					

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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P 5 6 1 5 3 R A 0 1 2 8


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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 The UK's physical landscape is made up of different rock types.

(a) Study Figure 1 in the Resource Booklet.

Identify rock type **X**.

(1)

- ☐ **A** Chalk
- ☐ **B** Granite
- ☐ **C** Sandstone
- ☐ **D** Limestone

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

(1)

(c) Explain **one** reason why areas of igneous rock are usually upland.

(2)

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(d) Study the Ordnance Survey (OS) map extract.

(i) Identify the main type of woodland in grid square 9047.

(1)

(ii) Identify the six figure grid reference for the summit of Bossington Hill.

(1)

☐ **A** 901487

☐ **B** 904485

☐ **C** 908487

☐ **D** 909485

(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 different physical processes.

(a) Define the term **mass movement**.

(1)

(b) Name **one** type of coastal landform created by deposition.

(1)

(c) Explain **one** way rock type leads to the formation of headlands.

(2)

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(d) Study Figure 2 in the Resource Booklet.

Examine how coastal retreat has affected people and the environment in the landscape shown in Figure 2.

(8)

Area for writing answer.



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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) Define the term **river discharge**.

(1)

(b) Name **one** way sediment is transported by a river.

(1)

(c) Explain **one** way that deposition leads to the formation of levees.

(2)



P 5 6 1 5 3 R A 0 7 2 8

(d) Study Figure 3 in the Resource Booklet.

Examine how land use affected the storm hydrographs for River A and River B shown in Figure 3.

(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 different processes.(a) Define the term **relict glacial landscape**.

(1)

(b) Name **one** type of mechanical weathering process that operates on glacial landscapes.

(1)

(c) Explain **one** way that farming can have an impact on glaciated landscapes.

(2)

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

Examine the role of erosional processes in the formation of the corrie shown in Figures 4a and 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 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 The Earth's atmosphere is constantly in motion.

(a) Study Figure 5a below.

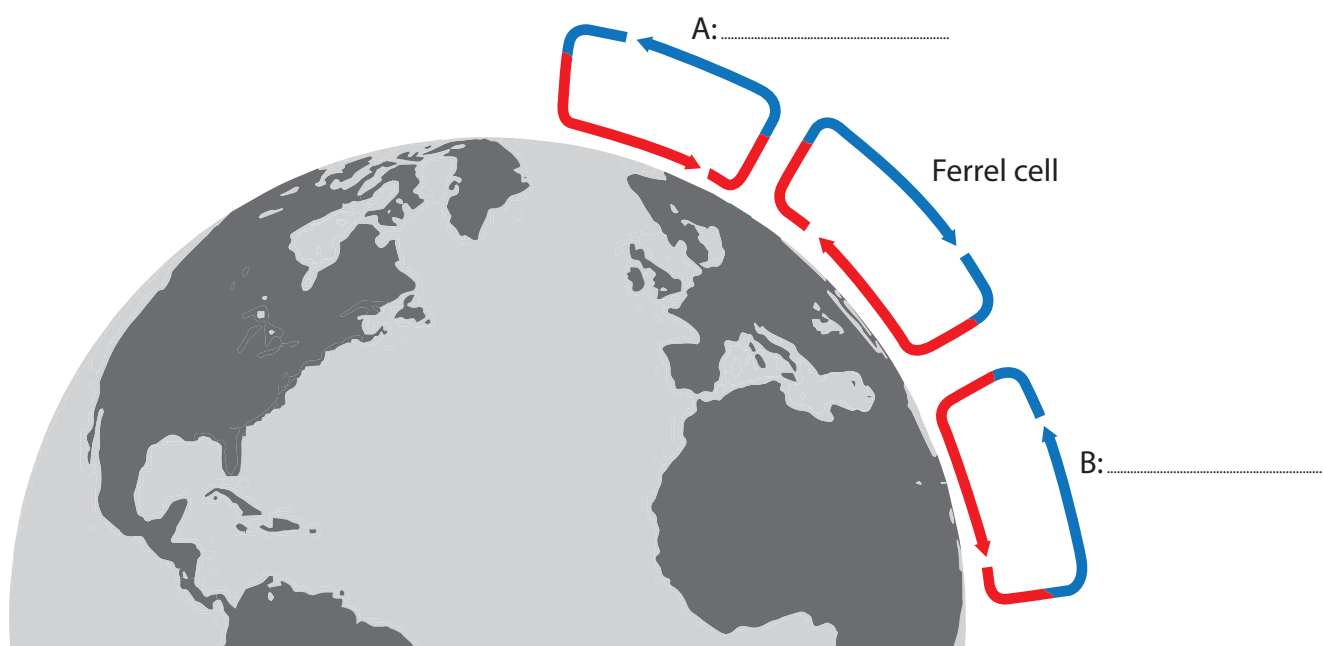


Figure 5a

The global atmospheric circulation cells in the northern hemisphere

Complete Figure 5a by labelling cells A and B.

(2)



P 5 6 1 5 3 R A 0 1 3 2 8

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

(i) Identify the month with the highest heat energy at 60 °N.

(1)

- ☐ **A** February
- ☐ **B** March
- ☐ **C** April
- ☐ **D** June

(ii) Identify the maximum monthly heat energy at 0°N (equator).

(1)

- ☐ **A** 110W/m²
- ☐ **B** 390W/m²
- ☐ **C** 430W/m²
- ☐ **D** 470W/m²

(c) Explain **one** reason why more heat energy is received at the Equator than at the poles.

(3)

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(Total for Question 5 = 7 marks)



6 The global climate was different in the past and continues to change due to natural causes.

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

(i) Calculate the range of temperatures shown in Figure 6a.

You must show your working in the space below.

(2)

..... °C

Historical records such as Figure 6a provide evidence of natural climate change.

(ii) State **two** other pieces of evidence of natural climate change.

(2)

- 1
- 2



(b) Explain **one** way in which the Milankovitch cycles can affect global temperature. (3)

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(c) Tropical cyclones develop under specific conditions and in certain locations.

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

Identify the feature labelled **X** on Figure 6b.

(1)

(ii) Calculate the diameter of the tropical cyclone (shown by the line Y-Z) on Figure 6b.

You must show your workings in the space below.

(2)

..... km

(iii) Identify which country is regularly affected by tropical cyclones.

(1)

- ☐ **A** Indonesia
- ☐ **B** Finland
- ☐ **C** Peru
- ☐ **D** New Zealand



(d) Hurricane Matthew was the first Category 5 Atlantic hurricane since 2007.

Study Figures 6c and 6d in the Resource Booklet.

With reference to Figures 6c and 6d, suggest **two** reasons for the different impacts of Hurricane Matthew on Florida (USA) and Haiti.

(4)

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'Drought is mainly due to natural causes.'





(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.

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(g).

- 7 Tropical grassland and tropical rainforest are both examples of large-scale global ecosystems.

(a) Study Figure 7a below.

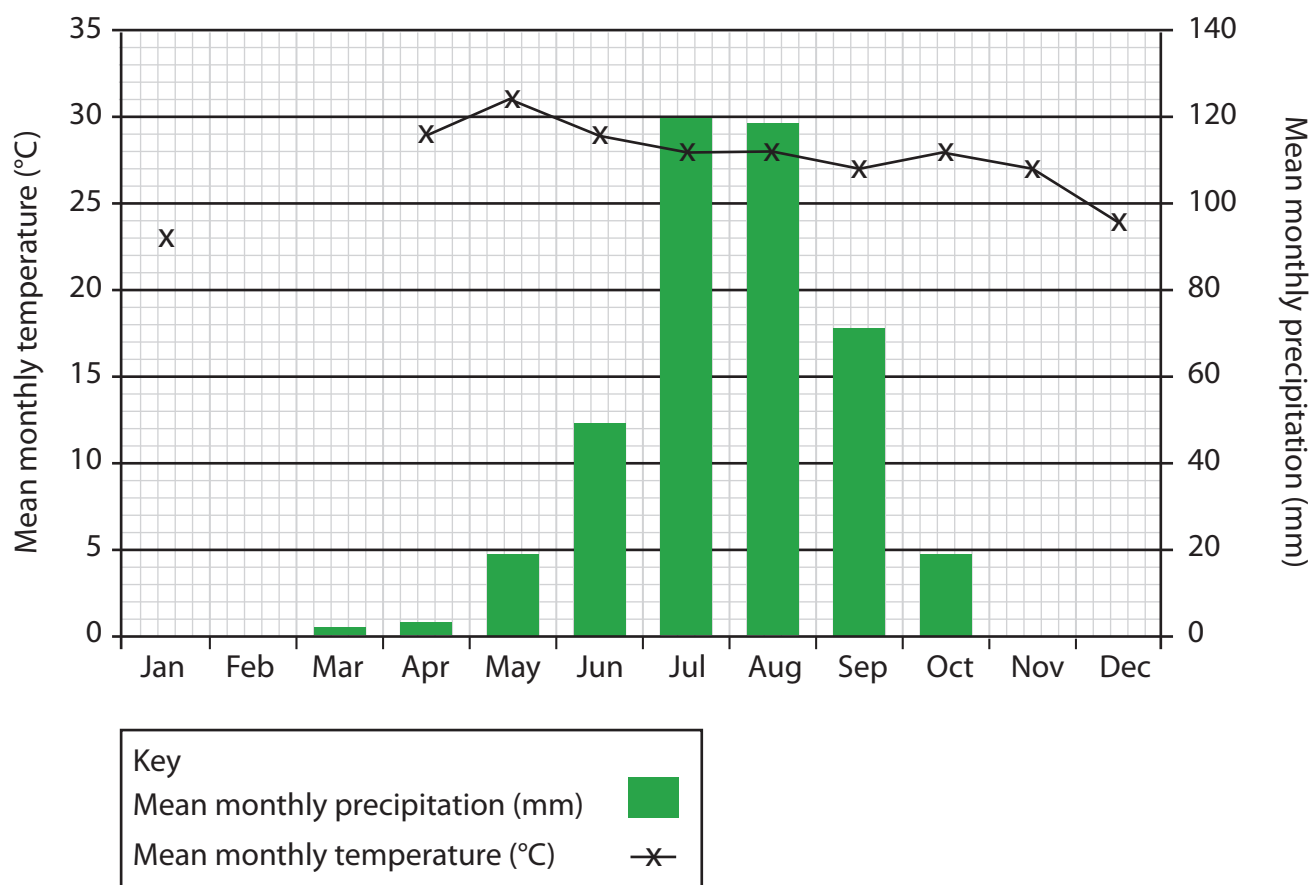


Figure 7a

Climate graph for Nyala, Sudan (Tropical Grassland)



- (i) Plot the temperatures for February and March to complete the line graph shown in Figure 7a. Use the information in the data table below.

(3)

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec
Monthly Temperature (°C)	23	25	29	29	31	29	28	28	27	28	27	24

- (ii) Calculate the mean monthly temperature using the data table.

Answer to one decimal place.

You must show your working in the space below.

(2)

..... °C

- (iii) Identify the median temperature shown on Figure 7a.

(1)

- ☐ **A** 26.5 °C
- ☐ **B** 27.0 °C
- ☐ **C** 27.5 °C
- ☐ **D** 28.0 °C



(b) Explain **two** ways climate can influence the distribution of large-scale ecosystems.

(4)

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(c) With reference to Figure 7b in the Resource Booklet, explain **one** way human activity can damage marine ecosystems in the UK.

(2)

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(d) The tropical rainforest nutrient cycle is very rapid.

Explain **one** reason why the litter store is usually very small in tropical rainforests.

(3)

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

Suggest **one** economic cause for the changes to the tropical rainforest shown on Figure 7c.

(3)

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(f) Explain **two** ways that tropical rainforests can be managed sustainably.

(4)

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

- (g) Evaluate the impact of physical and human factors on the biodiversity of deciduous woodland ecosystems.

(8)

Area for writing answer to question (g). The area contains horizontal dotted lines for writing.



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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)

Tuesday 21 May 2019

Afternoon (Time: 1 hour 30 minutes)

Paper Reference **1GA0/01**

Geography A

Paper 1: The Physical Environment

Resource Booklet

Do not return this Resource Booklet with the question paper.

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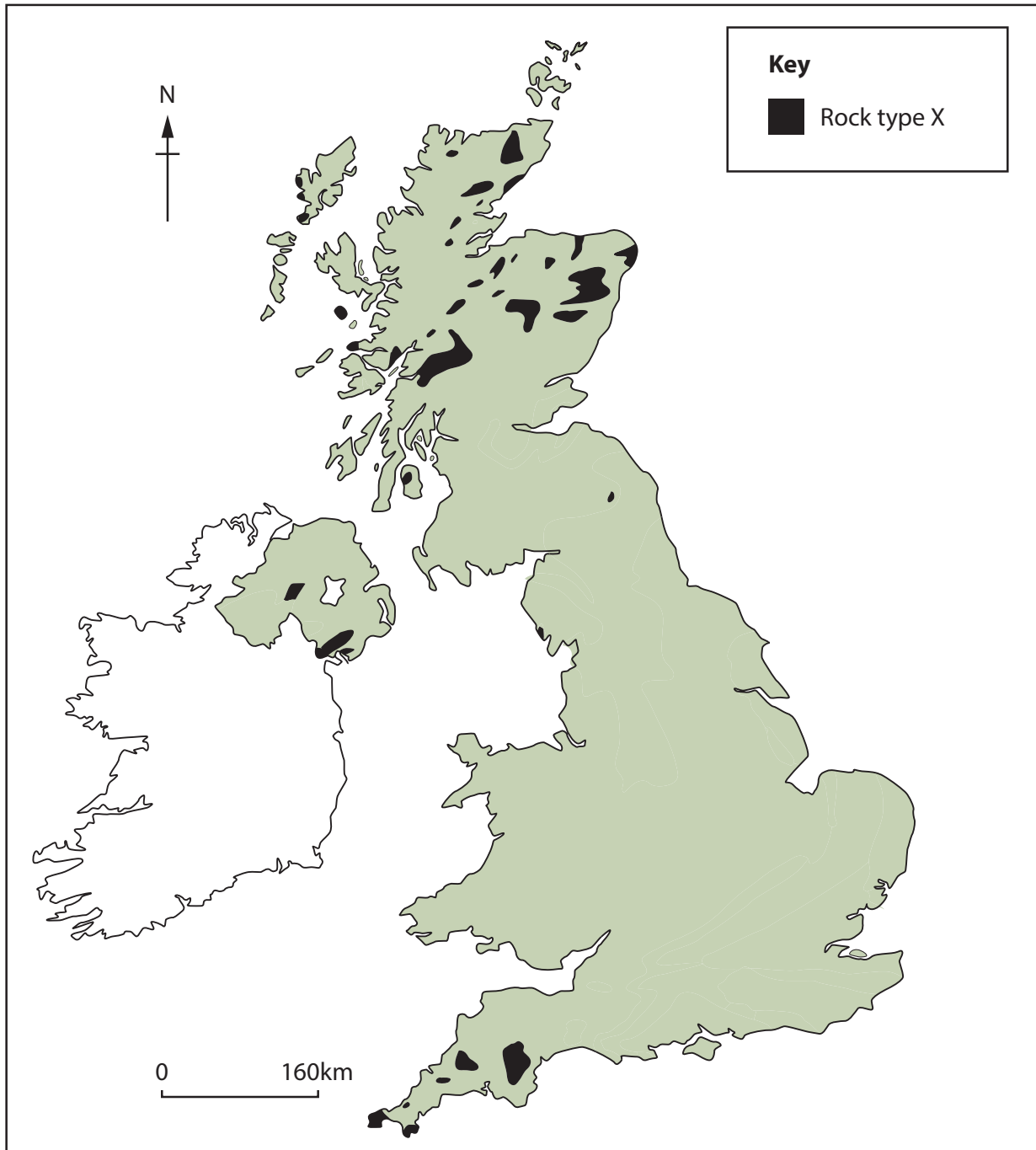
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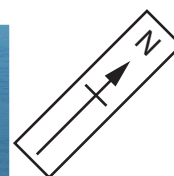
**SECTION A****The Changing Landscapes of the UK****Figure 1****A map of the UK showing a selected rock type**



1996



2012



0 30 metres

Figure 2

**Aerial photographs showing the coastline at Happisburgh, East Anglia
in 1996 and 2012**

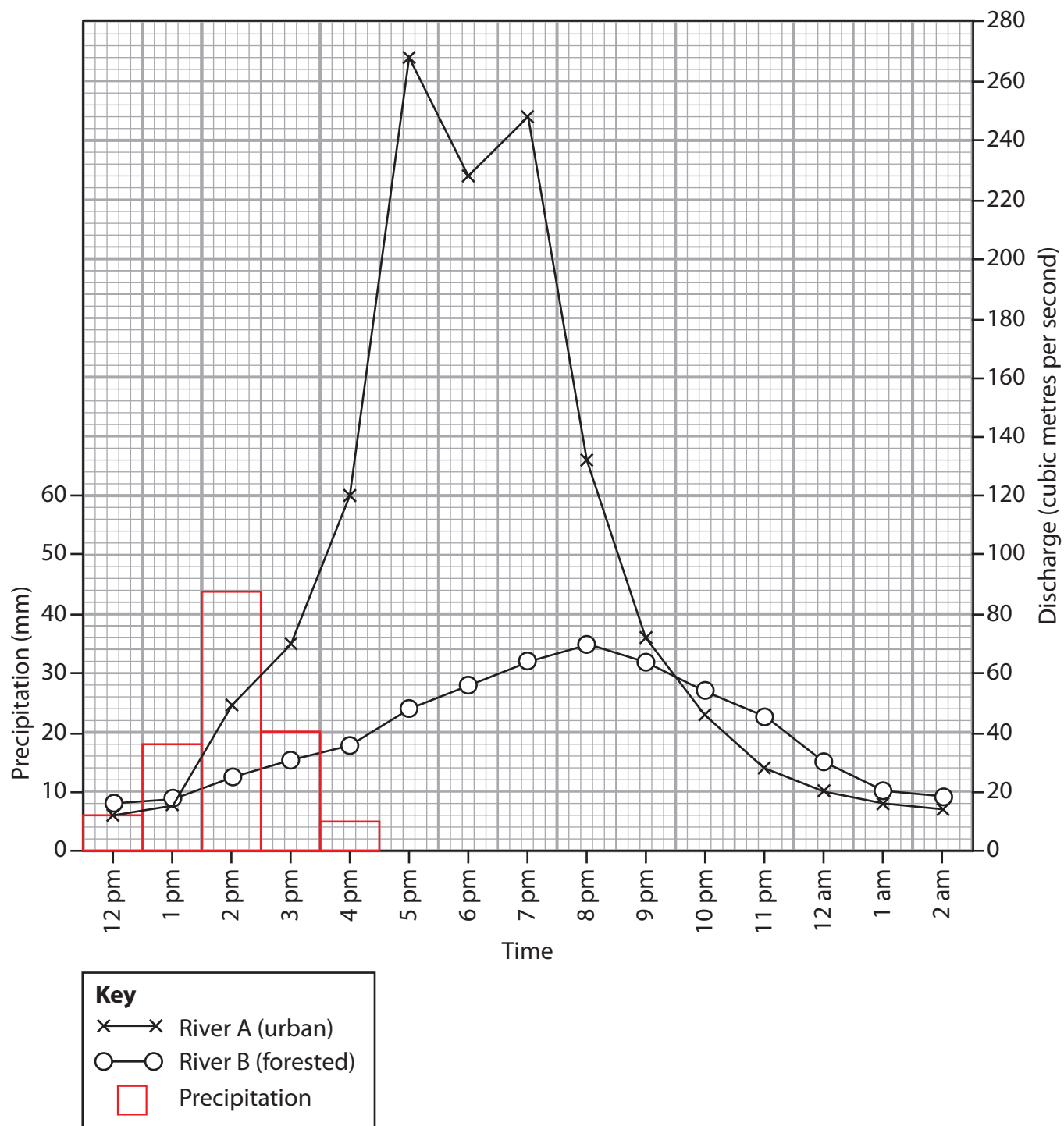


Figure 3

Storm hydrographs for an urban catchment (River A) and a forested catchment (River B) following a period of rainfall

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Figure 4a

**A photograph looking North West to Llyn Cau (a glacial lake formed in the bottom of a corrie),
Cadair Idris, Wales**



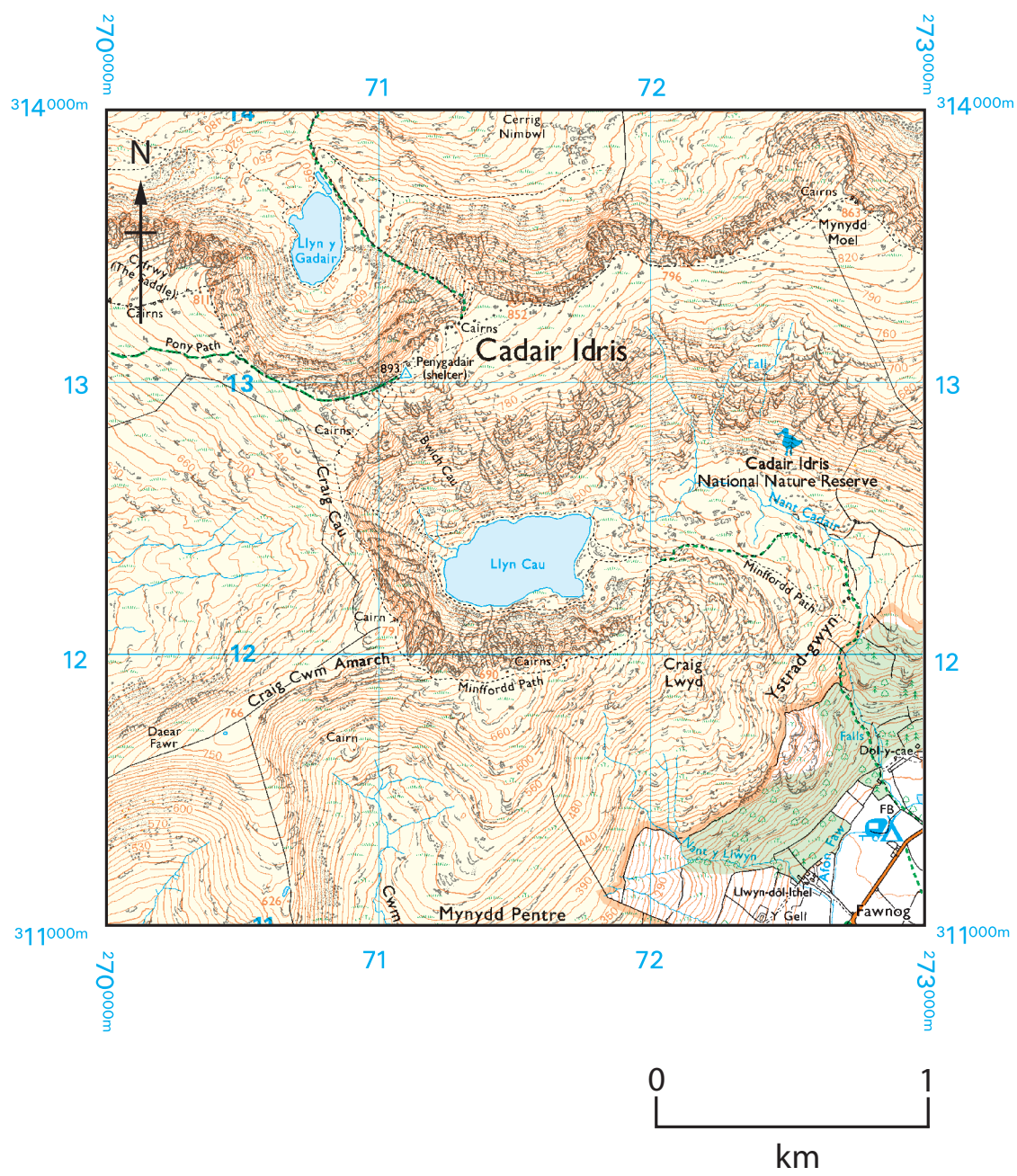
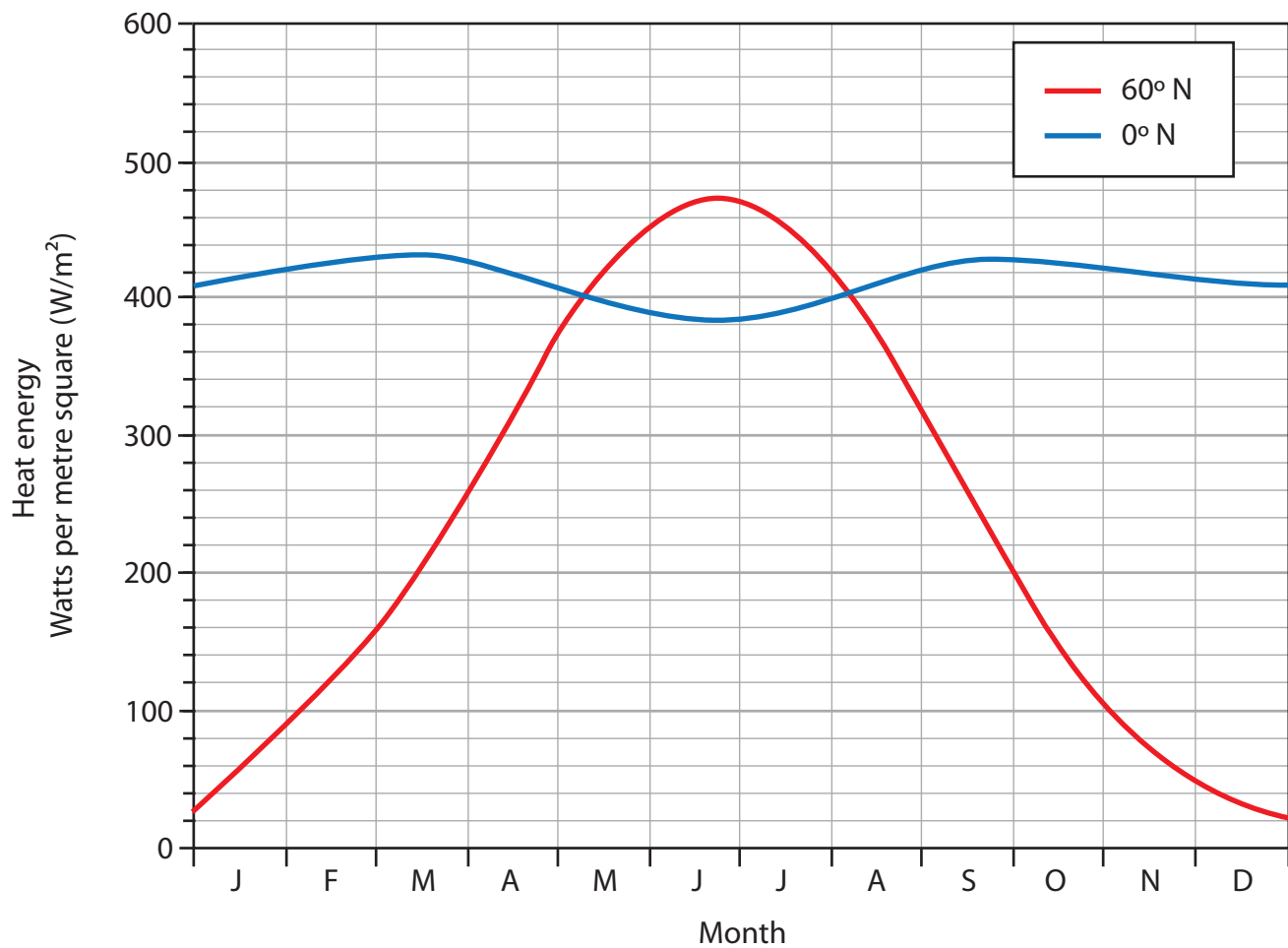


Figure 4b
An Ordnance Survey map of Cadair Idris, Wales

**SECTION B****Weather Hazards and Climate Change****Figure 5b**

Monthly values of heat energy received from the sun at different latitudes in Watts per metre square (w/m²)



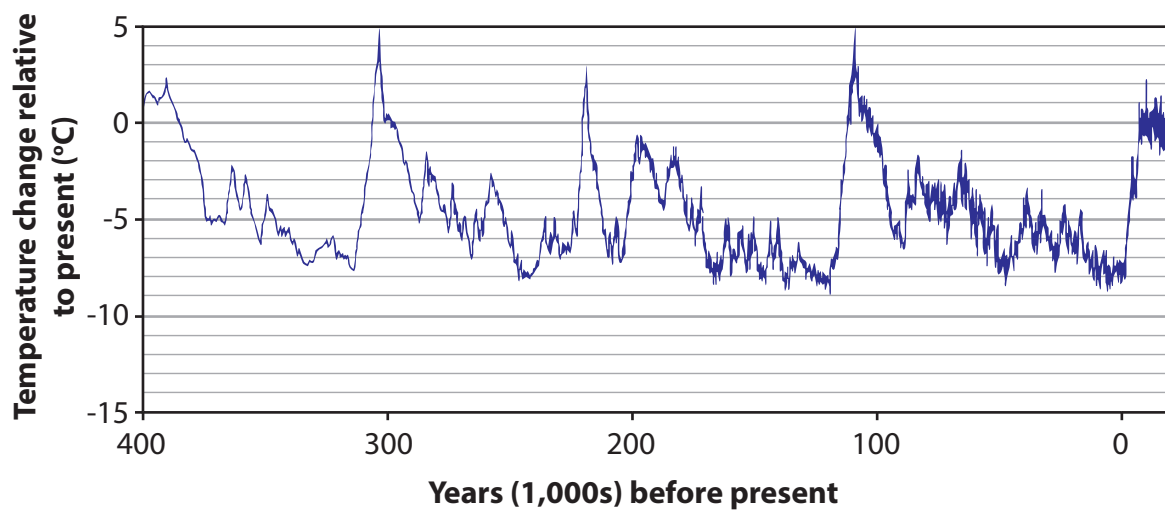


Figure 6a

A line-graph showing changes in the average global surface temperature

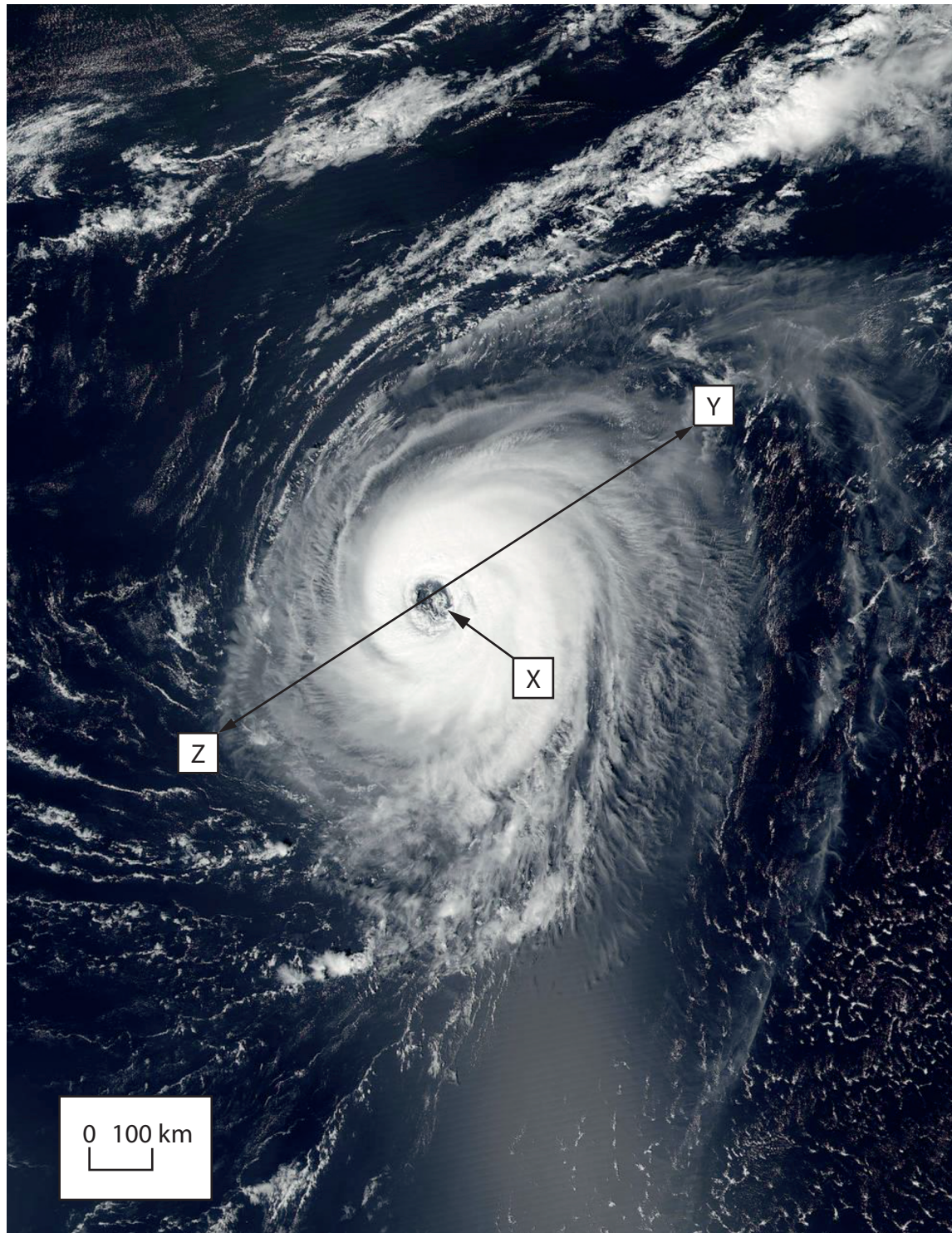


Figure 6b

A satellite image showing Typhoon Meranti, 14 September 2016



It led to 47 deaths in the USA.

The state of Florida planned to evacuate all residents within 100 miles of the coast.

The USA is a developed country with a GNI per capita of US\$ 57,540 (2017).

Figure 6c

Evacuation in Florida, USA before the landfall of Hurricane Matthew, October 2016



It led to 546 deaths in Haiti.

In Haiti there were only 576 hurricane shelters available with capacity of 90,000 people for a population of 11 million.

Haiti is a developing country with a GNI per capita of US\$ 1,760 (2017).

Figure 6d

Damage caused by Hurricane Matthew in Haiti, October 2016



SECTION C

Ecosystems, Biodiversity and Management

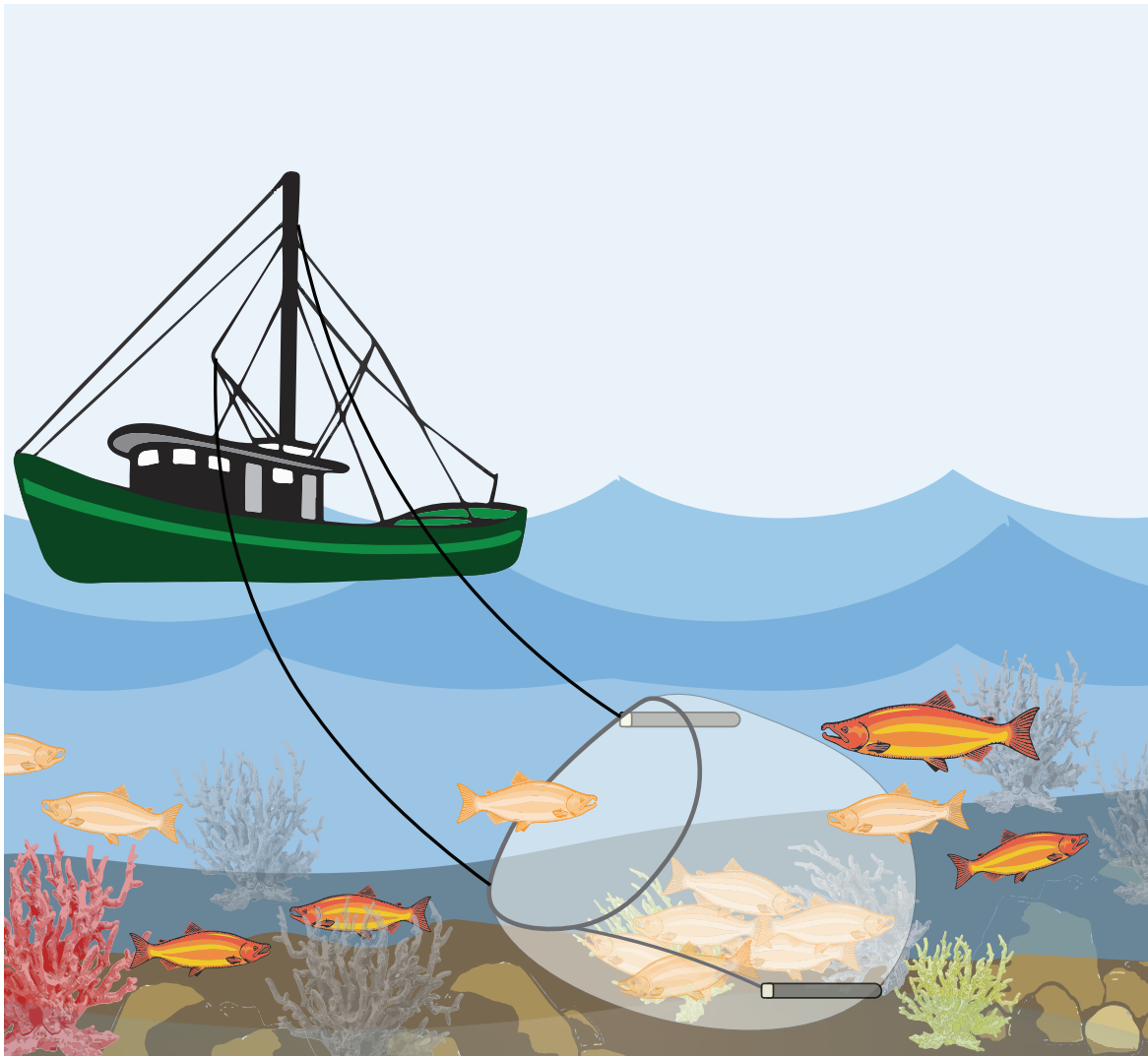


Figure 7b

An example of how human activity can affect marine ecosystems





Figure 7c

The effects of human activity in a tropical rainforest



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Figure 5b Sourced from: <http://www.physicalgeography.net/fundamentals/6i.html>

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

Figure 6b NOAA / NASA Goddard MODIS Rapid Response Team

Figure 6c © GREGG NEWTON/Stringer/Getty Images

Figure 6d © NurPhoto/Getty Images

Figure 7c © Gerry Ellis/ Minden Pictures/Getty Images

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1:25 000 Scale
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ROADS AND PATHS

Not necessarily rights of way	
M1 or A6(M)	Motorway
A 35	Service Area
A 30	Junction Number
B 3074	Dual carriageway
	Main road
	Secondary road
	Narrow road with passing places
	Road under construction
	Road generally more than 4 m wide
	Road generally less than 4 m wide
	Other road, drive or track, fenced and unfenced
	Gradient: steeper than 20% (1 in 5)
	14% (1 in 7) to 20% (1 in 5)
	Ferry; Ferry P – passenger only
	Path

RAILWAYS

	Multiple track
	Single track
	Narrow gauge or Light Rapid Transit System (LRTS) and station
	Road over; road under; level crossing
	Cutting; tunnel; embankment
	Station, open to passengers; siding

PUBLIC RIGHTS OF WAY

Not shown on maps of Scotland	
	Footpath
	Bridleway
	Byway open to all traffic
	Restricted byway-not for use by mechanically propelled vehicles

The representation on this map of any other road, track or path is no evidence of the existence of a right of way

OTHER PUBLIC ACCESS

	Other routes with public access
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The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available

	Recreational route
	National Trail / Long Distance Route
	Permissive footpath
	Permissive bridleway
	Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn.
	Traffic-free cycle route
	National cycle network route number – traffic free; on road

BOUNDARIES

	National
	County (England)
	Unitary Authority (UA), Metropolitan District (Met Dist), London Borough (LB) or District (Scotland & Wales are solely Unitary Authorities)
	Civil Parish (CP) (England) or Community (C) (Wales)
	National Park

HISTORICAL FEATURES

	Site of antiquity
	Site of battle (with date)
	Roman
	Non-Roman
	Visible earthwork

Information provided by English Heritage for England and the Royal Commissions on the Ancient and Historical Monuments for Scotland and Wales

GENERAL FEATURES

	Gravel pit
	Sand pit
	Other pit or quarry
	Landfill site or slag/spoil heap
	Slopes
	Place of worship
	Current or former place of worship – with tower
	Current or former place of worship – with spire,minaret or dome
	Building; important building
	Glasshouse
	Youth hostel
	Bunkhouse / camping barn / other hostel
	Bus or coach station
	Lighthouse; disused lighthouse;
	Beacon
	Triangulation pillar
	Mast
	Windmill; with or without sails
	Wind pump; wind turbine
	Electricity transmission line
	Boundary post
	Boundary stone
	Cattle grid
	Clubhouse
	Footbridge
	Milepost; milestone
	Monument
	Post office
	Police station
	School
	Town hall
	Normal tidal limit
	Well; spring

HEIGHTS AND NATURAL FEATURES

	Ground survey height
	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
	Loose rock
	Outcrop
	Scree
	Water; mud
	Sand; sand and shingle
	Coniferous trees
	Non-coniferous trees
	Coppice
	Orchard
	Scrub
	Bracken, heath or rough grassland
	Marsh, reeds or saltings

ACCESS LAND

	Firing and test ranges in the area. Danger! Observe warning notices
	Access permitted within managed controls, for example, local byelaws.

England and Wales

	Access land boundary and tint
	Access land in wooded area
	Access information point

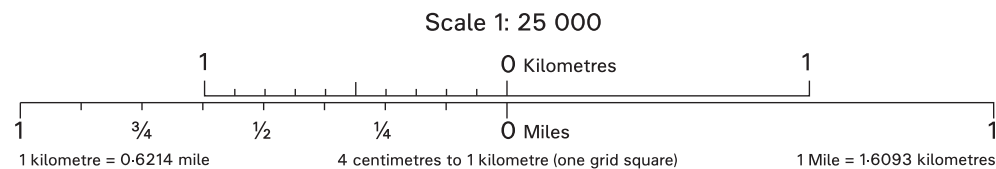
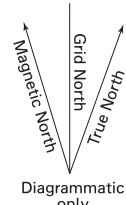
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Access for other activities may also exist. Some restrictions will apply; some land will be excluded from open access rights.

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TOURIST AND LEISURE INFORMATION

	Building of historic interest
	Boat trips
	Boat hire
	Cadw (Welsh heritage)
	Camp site/Caravan site
	Castle / fort
	Cathedral / Abbey
	Craft Centre
	Country park
	Cycle hire
	Cycle trail
	English Heritage property
	Fishing
	Forestry Commission visitor centre
	Garden / arboretum
	Golf course or links
	Historic Scotland
	Information centre, seasonal
	Horse riding
	Museum
	Mountain bike trail
	Nature reserve
	National Trust property
	Other tourist feature
	Parking / Park and ride, all year / seasonal
	Picnic site
	Preserved railway
	Public Convenience
	Public house/s
	Recreation / leisure / sports centre
	Slipway
	Telephone (public/ roadside assistance/ emergency)
	Theme / pleasure park
	Viewpoint
	Visitor centre
	Walks / trails
	Water activities
	World Heritage site or area



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