



GCSE
C111U10-1



MONDAY, 23 MAY 2022 - MORNING

GEOGRAPHY A – Component 1

Changing Physical and Human Landscapes

**1 hour 30 minutes plus your additional
time allowance**

Surname

First name(s)

Centre Number

Candidate Number

0

ADDITIONAL MATERIALS

Resource Folder.

In addition to this paper you may use a calculator and ruler if required.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces on the previous page.

Answer BOTH questions in Section A.

Answer ONE question in Section B.

(Turn over)

Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use the additional page(s) at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

Your ability to spell, punctuate and use grammar and specialist terms accurately will be assessed in your answer to question 2(c)(iii).

(Turn over)

SECTION A: CORE THEMES

Answer ALL of the questions in this section.

CORE THEME 1: LANDSCAPES AND PHYSICAL PROCESSES

1(a) Study Map 1.1 opposite. It shows the National Parks of England and Wales.

(i) Name ONE National Park in the south-west of England. [1 mark]

(Turn over)

1 (a) (ii) **Circle** the correct answer in
the statement below. [1 mark]

**The three National Parks in Wales cover
approximately 20% / 45% / 60% of
the land area.**

(Turn over)

- 1 (a) (iii) Describe the location of the
Yorkshire Dales within England.
[3 marks]**

(Turn over)

- 1 (a) (iv) The Yorkshire Dales, like other National Parks, contains honeypot sites. These attract many visitors.**

Explain why too many visitors at honeypot sites is an important issue. [4 marks]

Name of landscape studied

(Turn over)

- 1 (b) The hydrograph opposite shows the discharge of a river after a period of heavy rainfall.**

Study GRAPH 1.2 opposite.

- (i) Give the lag time (difference in hours between peak rainfall and peak discharge) for river B. [1 mark]**

_____ hours

(Turn over)

- 1 (b) (ii) State TWO differences, other than lag time, between the discharge for river A and river B.**
[2 marks]

Difference 1

Difference 2

(Turn over)

1(b) (iii) The lag time can be affected by the underlying geology of a drainage basin.

Give TWO other factors that can affect the lag time. [2 marks]

Factor 1

Factor 2

(Turn over)

1(b)(iv) Explain why impermeable surfaces can increase the risk of river flooding.

[6 marks]

(Turn over)

**Additional space for question 1(b)(iv)
only:**

(Turn over)

1 (c) Study PHOTOGRAPH 1.3 opposite.

(i) Identify the landform in the photograph.
[1 mark]

Tick (✓) the correct box below.

LANDFORM	TICK (✓) ONE
Slip-off slope	
Waterfall	
V-shaped Valley	

(Turn over)

- 1 (c) (ii) Complete the following paragraph by selecting the correct term from the box opposite. [3 marks]

Rivers flowing over steep gradients

have enough energy to erode

_____ into

the river bed. In the upper course of the

river rocks lying in the river channel can

be large and quite _____ .

As the river flows downstream the

process of _____

gradually reduces the overall

size of the bedload.

(Turn over)

1 (c) (iii) Describe how large rocks/boulders can be moved downstream by a process of fluvial (river) transportation.

[2 marks]

(Turn over)

- 1 (d) Study the information in RESOURCE BOX 1.4, in the separate RESOURCE FOLDER.**

Analyse the different factors that may be responsible for the rate of landform change along this coastline. Use evidence from the resource box to support your answer. [8 marks]

(Turn over)

(Turn over)

[illegible]

(Turn over)

Additional space for question 1(d) only:

END OF QUESTION 1

(Turn over)

CORE THEME 2: RURAL-URBAN LINKS

2 (a) Study TABLE 2.1 opposite. It shows the number of people commuting out of Wrexham County in North East Wales.

(i) Calculate the range in this dataset.

[2 marks]

Show your working in the space below.

Range _____

(Turn over)

2 (a)(ii) The range is a measure of dispersion.

State ONE way in which the interquartile range may be a more appropriate measure of dispersion.

[1 mark]

(Turn over)

2 (a) (iii)

In 2019 the total number of working residents in Wrexham County was 66 400.

Calculate the percentage of people who commuted out of the county in 2019.

Show your working in the space below.
[2 marks]

_____ %

(Turn over)

2 (a) (iv)

Describe TWO ways in which counter-urbanisation has affected patterns of commuting in the UK.

[4 marks]

(Turn over)

2 (b) Study the OS MAP 2.2, in the separate RESOURCE FOLDER. It shows the town of Shrewsbury, Shropshire.

(i) Grid square 4912 is the town centre of Shrewsbury. Give ONE piece of map evidence which shows this. [1 mark]

(Turn over)

- 2 (b) (ii) In grid square 4513 people can park their cars and use public transport into the centre of Shrewsbury (Park and Ride).**

Give ONE reason why this location was chosen for Park and Ride. Use map evidence.

[2 marks]

(Turn over)

2 (b) (iii) Some retailers choose out of town sites for their stores. Explain why. [4 marks]

(Turn over)

2 (b) (iv) One retail park in Shrewsbury was built on the site of an old market.

Explain why brownfield sites are often chosen as locations for new retail developments. [6 marks]

(Turn over)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

Additional space for question 2(b)(iv) only:

(Turn over)

(c) (i) What are global cities?

Tick (✓) the correct definition below. [1 mark]

DEFINITION	TICK (✓) ONE
Cities with a population greater than 10 million.	
Cities which are the largest in a country.	
Cities which are well-connected with the rest of the world.	

(Turn over)

2 (c) (ii) Give THREE ways in which a global city you have studied is connected to its wider city-region. [3 marks]

Name of global city

(Turn over)

- 2 (c) (iii) Study the information in
RESOURCE BOX 2.3
opposite, below and on the
following page.**

**RESOURCE BOX 2.3 – Information
about the city of Kolkata, India**

- **Kolkata has a population of 14.9 million.**
- **Its population density is 24 000 per sq km.
(London has 5 700 per sq km)**
- **Many people migrate to Kolkata from other
parts of north-east India.**
- **The city has a severe housing shortage.**

(Turn over)

About a third of the population live in bustees (slums).

Thousands more are pavement dwellers.

The state government has programmes to improve the bustees, but also schemes for slum clearance and resettlement to new locations.

People can get cheap loans from banks.

Many charities also provide help to people in Kolkata and elsewhere.

Providing housing is a current urban challenge in many LICs and NICs.

Slum clearance is the best solution to this challenge. How far do you agree?

[8 marks]

Your ability to spell, punctuate and use grammar and specialist terminology accurately will be assessed in your answer to this question. [4 marks]

(Turn over)

(Turn over)

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(Turn over)

Additional space for question 2(c)(iii) only:

END OF QUESTION 2

(Turn over)

SECTION B: OPTIONS

**Answer ONE question in this section.
Choose EITHER Question 3 (Theme 3) OR
Question 4 (Theme 4).**

**THEME 3: TECTONIC LANDSCAPES AND
HAZARDS**

**3 (a) Study the histogram opposite. It
shows the number of volcanic
eruptions with a Volcanic
Explosivity Index (VEI) of 3 and
above between 1971 and 2020.**

**(i) Why was a histogram selected to
present this data? [2 marks]**

(Turn over)

3 (a) (ii) Stratovolcanoes usually have a VEI of 3 and above.

Give TWO reasons why stratovolcanoes are dangerous.

[4 marks]

(Turn over)

- 3 (b) Give TWO ways in which hazard mapping can reduce the risks associated with volcanic eruptions.**
[2 marks]

Way 1

Way 2

(Turn over)

- 3 (c) Study the information in RESOURCE BOX 3.2 below, opposite and on the following page.**

**RESOURCE BOX 3.2
INFORMATION ABOUT THE
PHILIPPINES**

- **The Philippines is a country made up of over 7 000 islands.**
- **Luzon is the main island.**
- **It has a population of 109 million with 47.4% living in urban areas.**
- **It is a NIC with a GNI per capita of US\$ 10 720.**
- **Its HDI figure improved by 12.9% between 2000 and 2017.**
- **At least 40% of employed people work in the informal sector.**
- **The Philippines is near a plate boundary and has 53 active volcanoes.**

(Turn over)

PHILIPPINES FACT BOX

- **Taal volcano previously erupted 43 years ago.**
- **It's the second most active volcano in The Philippines.**
- **The volcano is a large caldera filled by Taal Lake.**
- **Taal is only 70 km to the south of the capital city, Manila.**
- **The 2020 eruption resulted in the evacuation of 8 000 people and the closure of schools, workplaces and the cancellation of flights.**
- **39 people died in the 2020 eruption.**

(Turn over)

‘Social and economic factors are more significant than physical factors in making The Philippines more vulnerable to the impacts of volcanic eruptions.’

How far do you agree with this statement?

[8 marks]

(Turn over)

(Turn over)

(Turn over)

Additional space for question 3(c) only:

END OF QUESTION 3

(Turn over)

**THEME 4:
COASTAL HAZARDS AND THEIR
MANAGEMENT**

**If you have answered question 3, DO NOT
answer question 4.**

**4 (a) Study the histogram opposite. It
shows the number of named UK
storms (powerful storms) between
2015 and 2020.**

**(i) Why was a histogram selected to
present this data? [2 marks]**

(Turn over)

- 4 (a) (ii) Give TWO reasons why powerful storms increase vulnerability to coastal erosion. [4 marks]**

(Turn over)

4 (b) Give TWO ways in which hazard mapping can reduce the risks associated with coastal flooding.

[2 marks]

Way 1

Way 2

(Turn over)

- 4 (c) Study the information in RESOURCE BOX 4.2 below, opposite and the following page.**

**RESOURCE BOX 4.2
INFORMATION ABOUT THE
PHILIPPINES**

- **The Philippines is a country made up of over 7 000 islands.**
- **Luzon is the main island.**
- **It has a population of 109 million with 47.4% living in urban areas.**
- **It is a NIC with a GNI per capita of US\$ 10 720.**
- **Its HDI figure improved by 12.9 % between 2000 and 2017.**
- **At least 40% of employed people work in the informal sector.**
- **On average 9 typhoons make landfall on the islands each year.**

(Turn over)

TYPHOON KAMMURI DECEMBER 5, 2019

- **Kammuri made landfall on the south eastern part of Luzon.**
- **It was a powerful typhoon equivalent of a Category 4 Atlantic hurricane.**
- **Tropical Cyclone Warning Systems were issued as the storm came close to Luzon.**
- **Flood waters forced 60 000 people to flee their homes and landslides cut off roads to some isolated towns.**
- **12 people died and damage repair was estimated at US\$116 million.**
- **Climate change is likely to increase the risk of coastal floods in the future.**

(Turn over)

‘Social and economic factors are more significant than physical factors in making The Philippines more vulnerable to the impacts of coastal flooding.’

How far do you agree with this statement?

[8 marks]

(Turn over)

(Turn over)

(Turn over)

Additional space for question 4(c) only:

END OF QUESTION 4

END OF PAPER

(Turn over)

Question number	Additional page, if required. Write the question number(s) in the left-hand margin.

(Turn over)

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(Turn over)

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(Turn over)

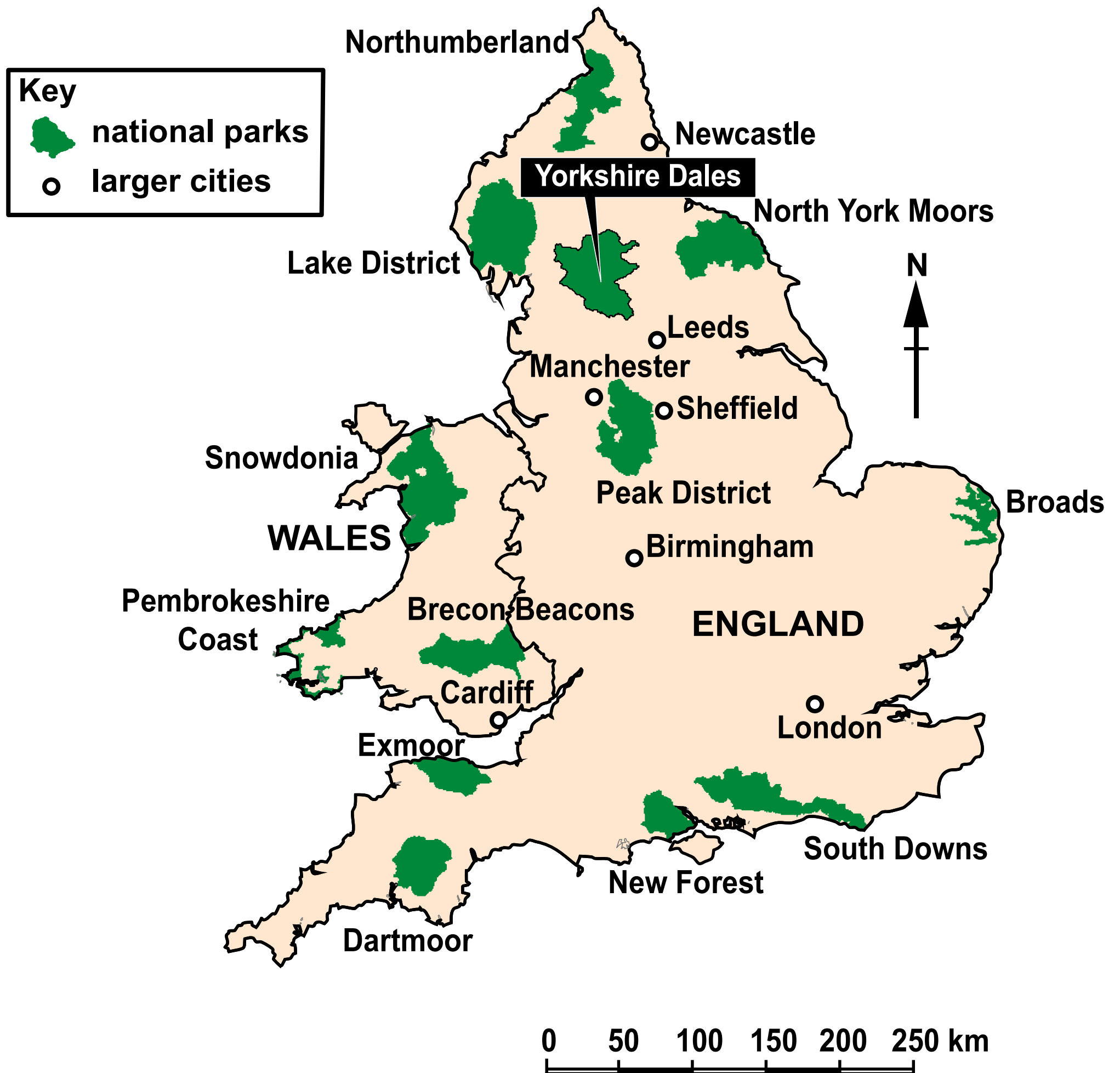
Question number	Additional page, if required. Write the question number(s) in the left-hand margin.

(Turn over)

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	34	
2	34	
SPaG	4	
either 3	16	
or 4	16	
Total	88	

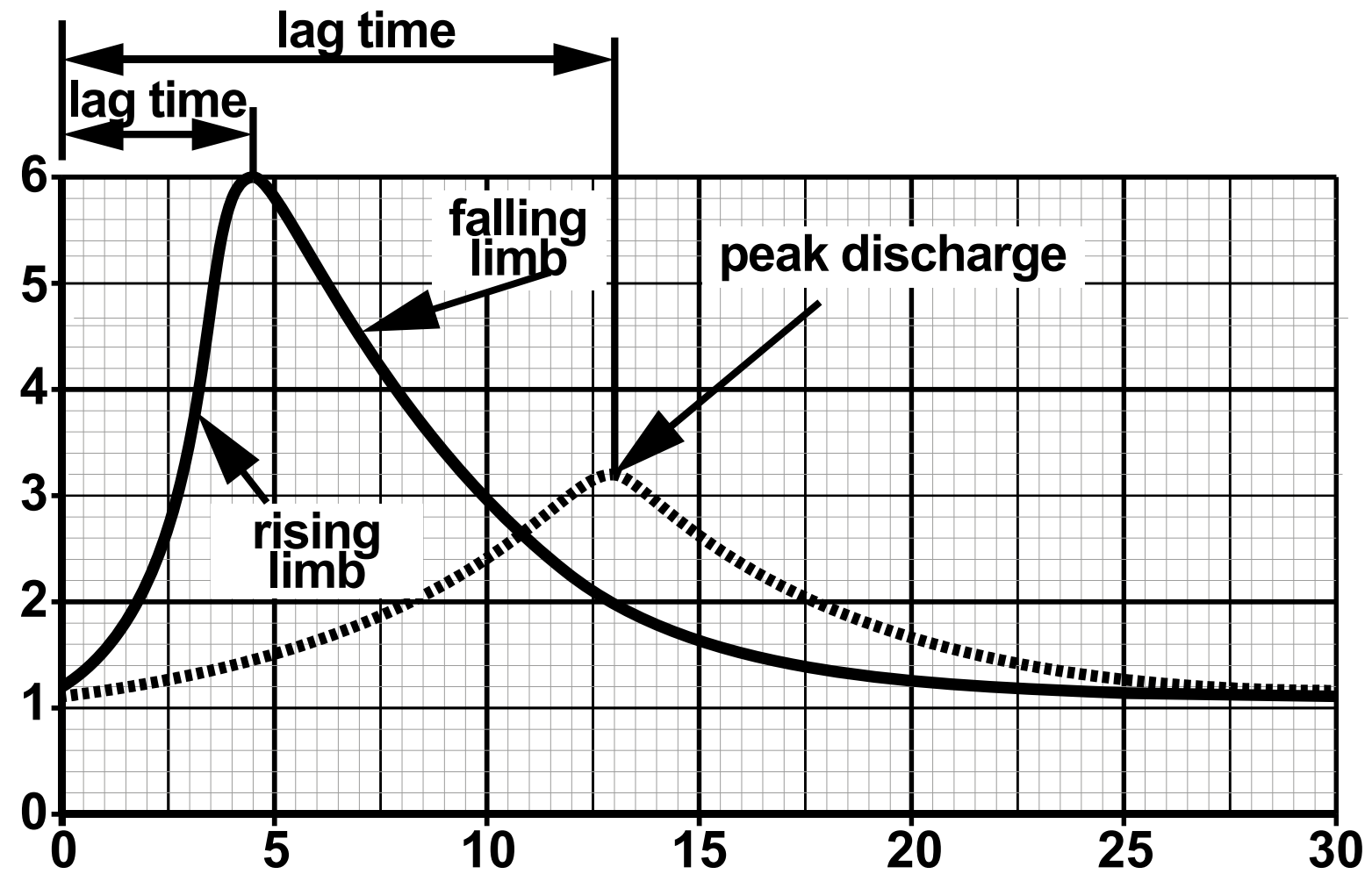
For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	34	
2	34	
SPaG	4	
either 3	16	
or 4	16	
Total	88	

MAP 1.1 - The National Parks of England and Wales



Graph 1.2 - A hydrograph for two rivers

Discharge
(cumecs)



Hours after the peak rainfall

Key:

— River A

..... River B

Photograph 1.3 - A river flowing in an upland area of the UK



Question 1 (c) (ii)

angular

laterally

suspension

vertically

attrition

horizontally

smooth

weathering

rounded

TABLE 2.1

**NUMBER OF PEOPLE COMMUTING OUT OF WREXHAM
COUNTY 2010–2019**

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
16 600	17 700	18 000	17 900	14 900	15 700	15 900	17 300	19 400	16 800

Location of Kolkata



Slum quarter, Shibpur district



Many people work in the informal sector



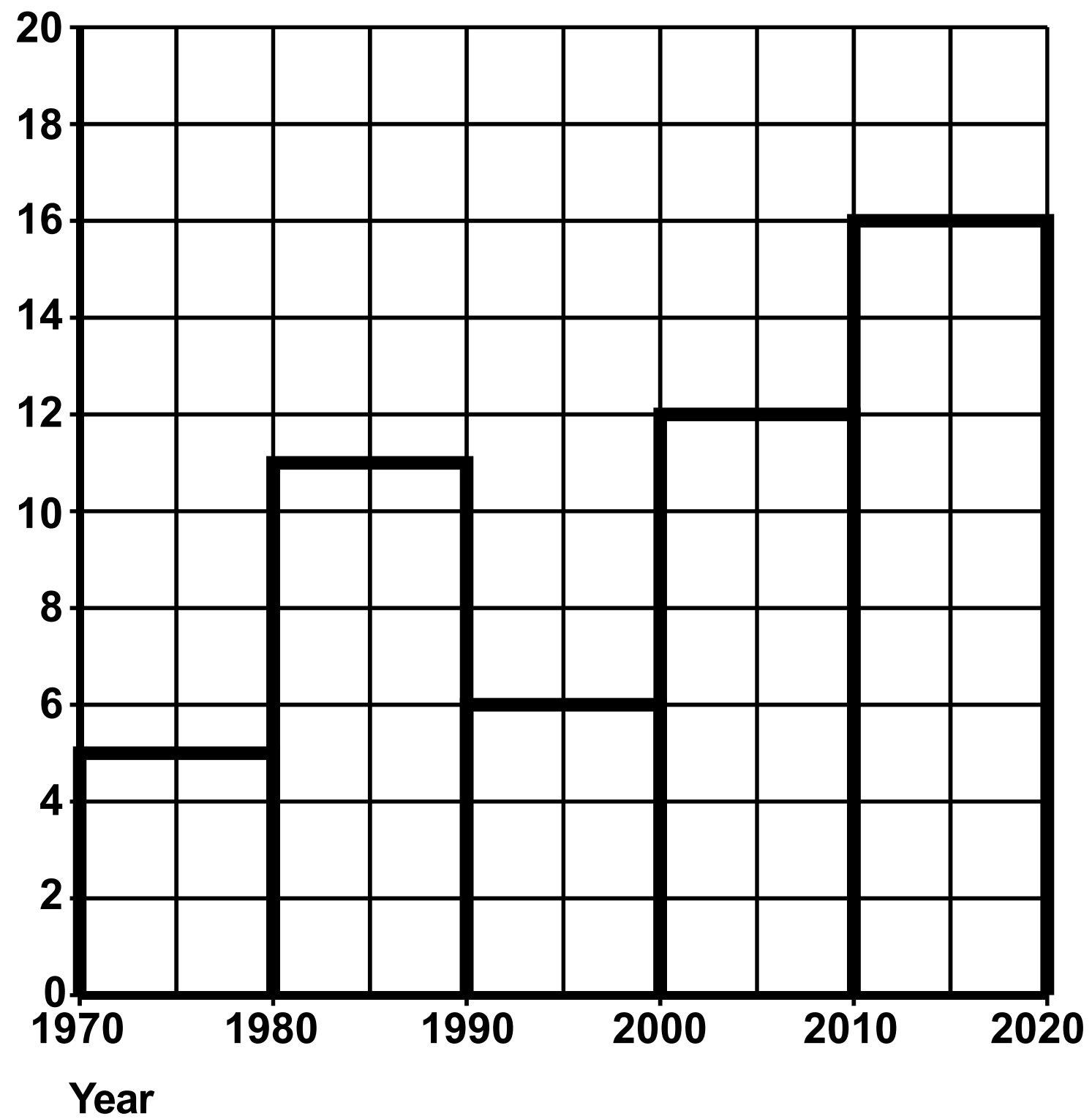
Urban development



Housing development in a 'New Town' on the edge of Kolkata as a possible alternative to the slums.

Graph 3.1 - Number of Larger Volcanic Eruptions 1971 - 2020

**Number of
eruptions**



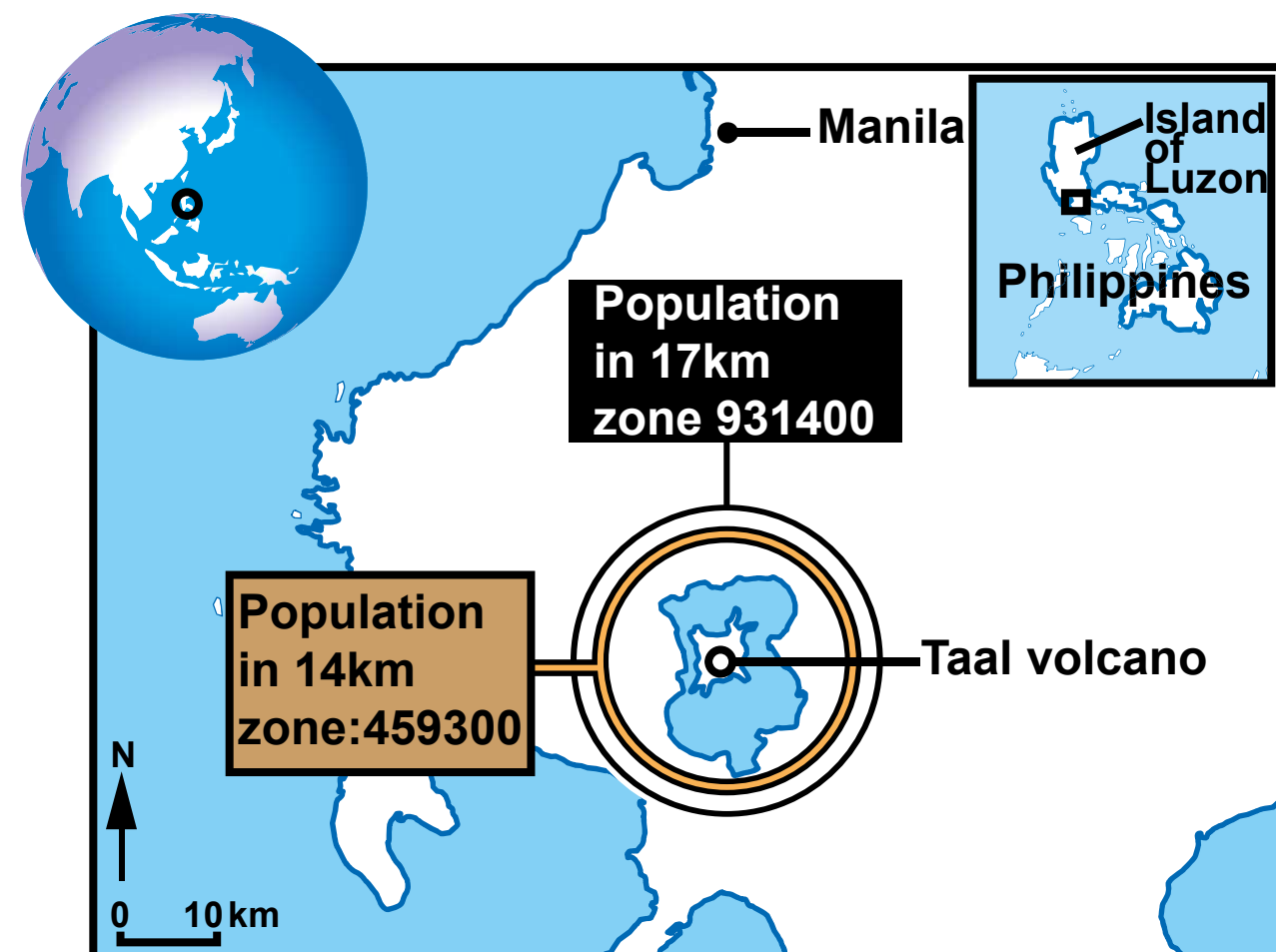
Location of The Philippines



Taal eruption January 12, 2020



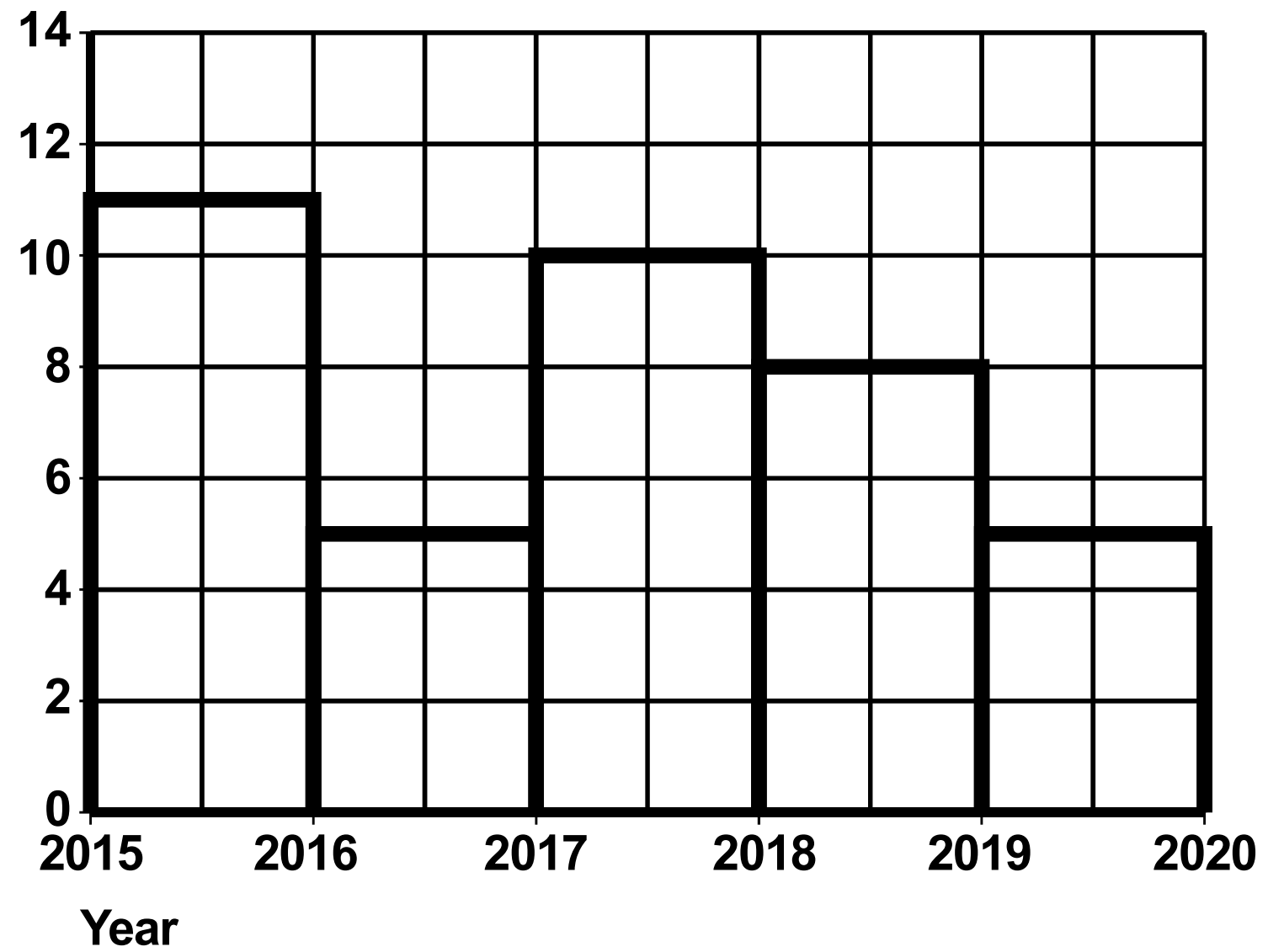
The location of Taal Volcano on the island of Luzon



Ambulance covered in ash

Graph 4.1 - Number of named storms 2015 - 2020

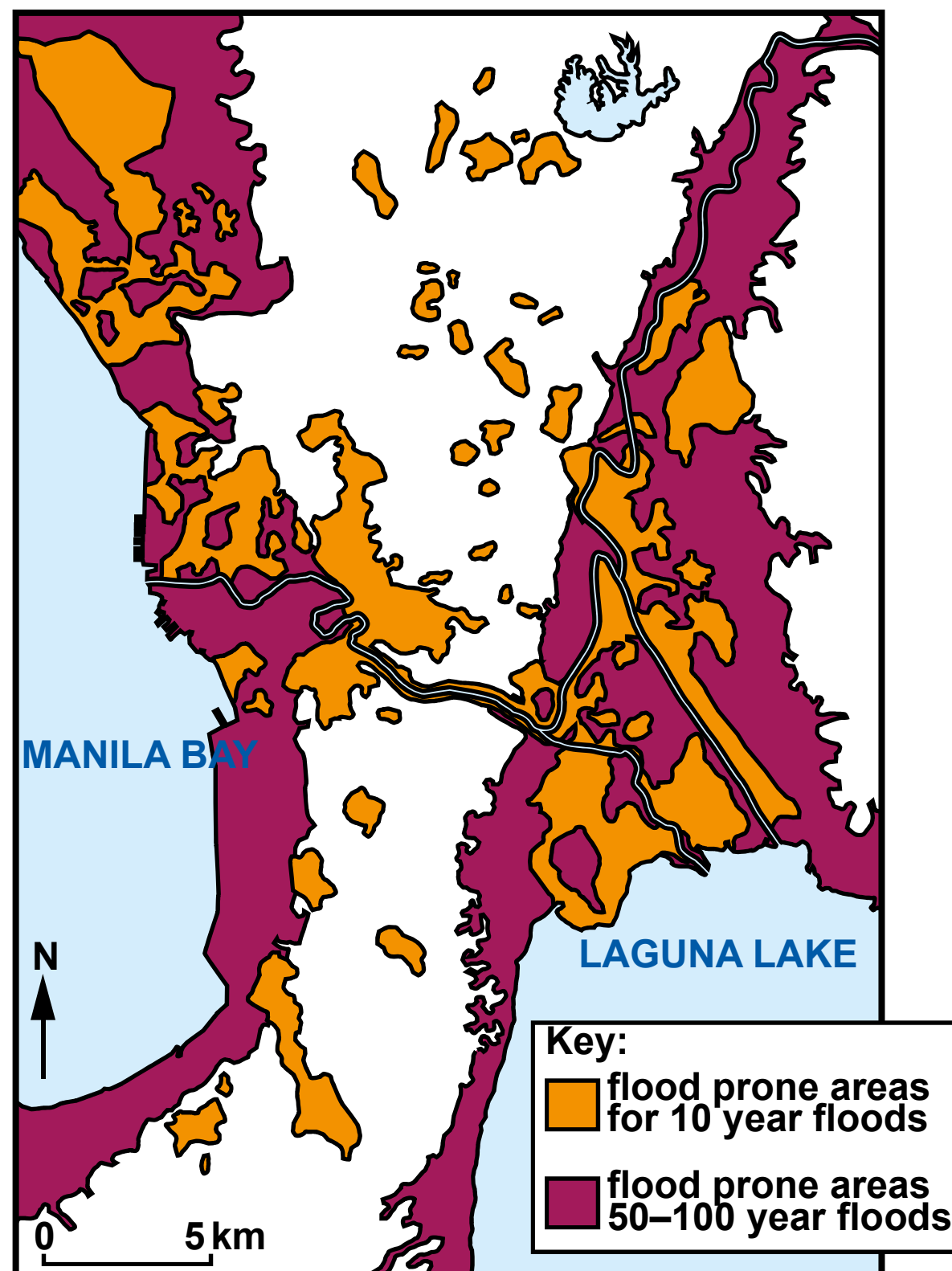
**Number of
storms**



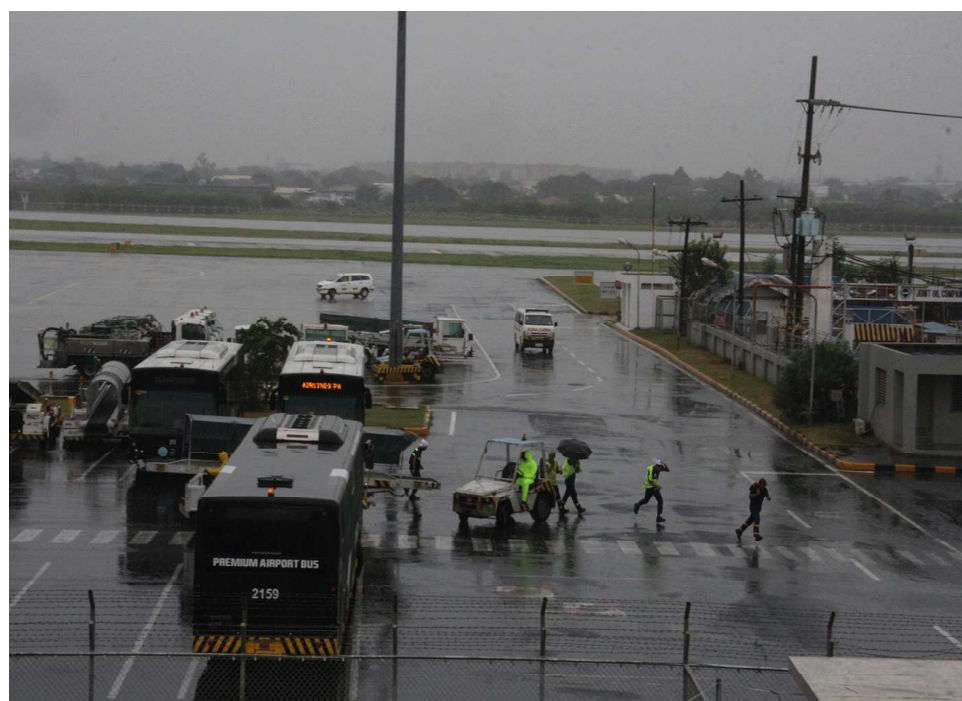
Location of the Philippines



Flood Risk Map of area around Manila



Location of the capital city, Manila, on island of Luzon



Manila airport - cancelled flights



Fishermen's stilt houses along the Luzon Coast

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MONDAY, 23 MAY 2022 - MORNING

GEOGRAPHY A – Component 1

RESOURCE FOLDER

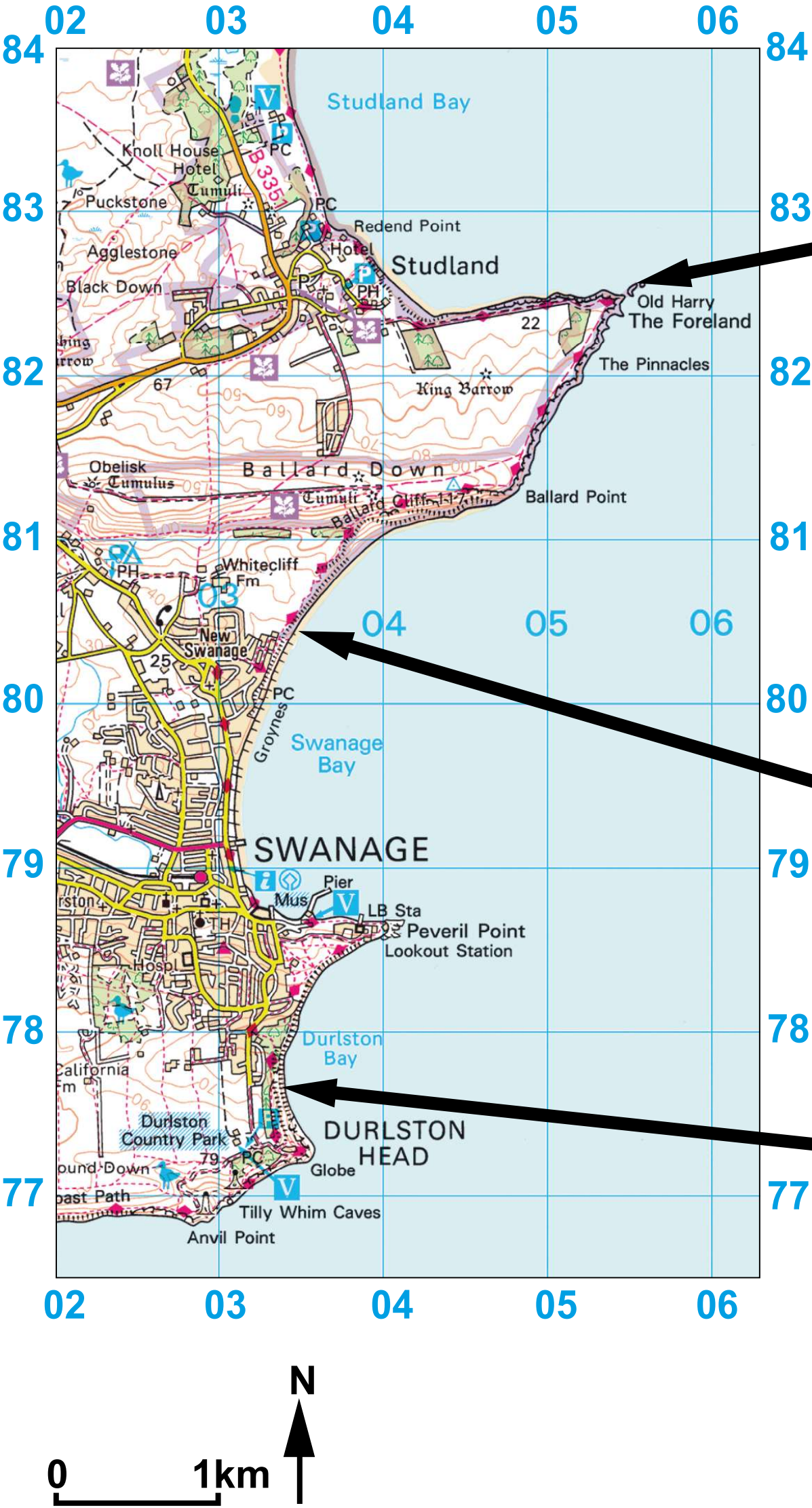
This folder is for use with questions in:

**CORE THEME 1: Landscapes and
Physical Processes**

CORE THEME 2: Rural-Urban Links.

**This folder need not be handed in with
your answer booklet.**

RESOURCE BOX 1.4 - THE DORSET COASTLINE



The Foreland and Old Harry



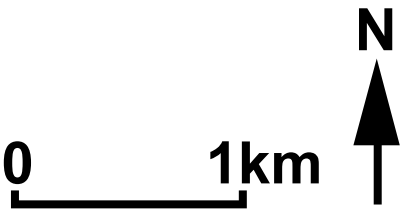
Cliffs at Swanage Bay



Cliffs at Durlston Bay



OS MAP 2.2 - SHREWSBURY



Landranger series (1:50 000 scale)

LANDRANGER MAP SYMBOLS



ROADS AND PATHS

Not necessarily rights of way

Motorway (dual carriageway)

Primary Route

Main road

Road under construction

Secondary road

Narrow road with passing places

Road generally more than 4m wide

Road generally less than 4m wide

Other road, drive or track

Path

Gradient: steeper than 20% (1 in 5)/
14% to 20% (1 in 7 to 1 in 5)

Gates / Road tunnel

Ferry (passenger) / Ferry (vehicle)

LAND FEATURES

Cutting, embankment

Electricity transmission line
(pylons shown at standard spacing)

Pipe line
(arrow indicates direction of flow)

Buildings

Important building (selected)

Bus or coach station

Glass structure

Heliport

Current or former place of worship;
with tower
with spire, minaret or dome

Place of worship

Triangulation pillar

Mast

Wind pump

Wind turbine

Windmill with or without sails

Graticule intersection at 5' intervals

Landfill site or slag/spoil heap

Coniferous wood

Non-coniferous wood

Mixed wood

Orchard

Park or ornamental ground

Access land (symbols indicate
owner or agency - see below)

Forestry Commission

Natural Resources Wales

National Trust; always open,
limited access - observe local signsNational Trust for Scotland;
always open, limited access -
observe local signs

RAILWAYS

Track multiple or single

Track under construction

Light rail system,
narrow gauge or tramway

Bridges, footbridge

Tunnel, cutting

Station, (a) principal

Siding

Light rail system station

Level crossing

Viaduct, embankment

PUBLIC RIGHTS OF WAY

Not shown on maps of Scotland

Footpath

Bridleway

Restricted byway (not for use by
mechanically propelled vehicles)

Byway open to all traffic

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

Public rights of way shown on this map have been taken from local authority definitive maps and later amendments.

The symbols show the defined route so far as the scale of the mapping will allow.

Rights of way are liable to change and may not be clearly defined on the ground. Please check with the relevant local authority for the latest information. Rights of way are not shown on maps in Scotland.

OTHER PUBLIC ACCESS

National Trail, Scotland's Great Trails,
European Long Distance Path and
selected Recreational Routes

On-road cycle route

Traffic-free cycle route

Cycle Network number;
National / Regional

Other route with public access
(not normally shown in urban areas)

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. These routes are not shown on maps of Scotland

Danger Area

Firing and Test Ranges in the area.
Danger! Observe warning notices.

BOUNDARIES

National

County, Unitary Authority, Metropolitan District
or London Borough

District

National Park

WATER FEATURES

Marsh or salting

Towpath

Lock

Ford

Slopes

Cliff

Flat rock

Lighthouse (in use)

Lighthouse (disused)

Beacon

Sand Dunes

Shingle

Mud

Aqueduct

Weir

Footbridge

Bridge

Lake

Canal (dry)

ABBREVIATIONS

See website for full list

Br	Bridge	MS	Milestone
Cemy	Cemetery	Mus	Museum
CG	Cattle grid	P	Post office
CH	Clubhouse	PC	Public convenience (in rural areas)
Coll	College	PH	Public house
Fm	Farm	Sta	Station
Ho	House	Sch	School
Hospl	Hospital	TH	Town Hall, Guildhall or equivalent
MP	Milepost	Univ	University

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

+	Site of antiquity	VILLA	Roman	✕ 1066	Site of battle (with date)
✕	Visible earthwork	Castle	Non-Roman		

HEIGHTS

Contours are at 10
metres vertical interval

Heights are to the
nearest metre above
mean sea level

Where two heights are shown, the first is the height of the natural ground in the location of the triangulation pillar, and the second (in brackets) to a separate point which is the natural summit.

ROCK FEATURES

Cliff

Outcrop

Cliff

Scree

TOURIST INFORMATION

Viewpoint 180°

Viewpoint 360°

Visitor centre

Walks / trails

Nature reserve

Picnic site

Youth hostel

Golf course or links

Garden / arboretum

Camp site / Caravan site

Camping and caravan site

Selected places of tourist interest

Information centre, all year / seasonal

Parking

Park & Ride, all year / seasonal

Phone, public / emergency / roadside assistance

Recreation / leisure / sports centre

World Heritage site or area