

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C111U10-1



**MONDAY, 23 MAY 2022 – MORNING**

## GEOGRAPHY A – Component 1

### Changing Physical and Human Landscapes

1 hour 30 minutes

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

#### ADDITIONAL MATERIALS

Resource Folder.

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

#### INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **both** questions in Section **A**.

Answer **one** question in Section **B**.

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).



JUN22C111U10101

## 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** below. It shows the National Parks of England and Wales.

**MAP 1.1 – The National Parks of England and Wales**



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

.....

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

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

(iii) Describe the location of the Yorkshire Dales within England. [3]

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(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]

Name of landscape studied .....

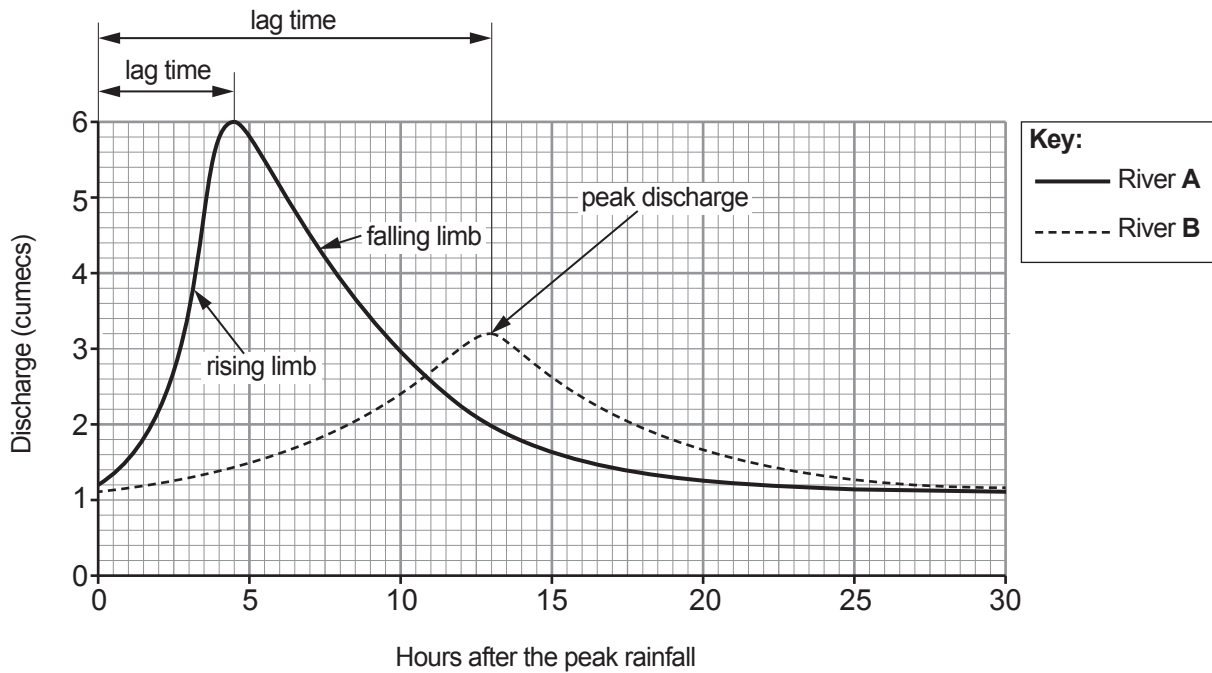
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- (b) A hydrograph shows the discharge of a river after a period of heavy rainfall. Study **Graph 1.2** below.

**Graph 1.2 – A hydrograph for two rivers**



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

..... hours

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

Difference 1

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Difference 2

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Examiner only

(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]

Factor 1

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Factor 2

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

[6]

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- (c) Study **Photograph 1.3** below.

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



- (i) Identify the landform in the photograph.

[1]

Tick (✓) the correct box below.

Landform	Tick (✓) one
Slip-off slope	<input type="checkbox"/>
Waterfall	<input type="checkbox"/>
V-shaped Valley	<input type="checkbox"/>



Examiner only

(ii) Complete the following paragraph by selecting the correct term from the box below.

[3]

angular	laterally	suspension	vertically	attrition
horizontally	smooth	weathering	rounded	

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.

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

[2]

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**End of Question 1**

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**CORE THEME 2: Rural-Urban Links**

- 2. (a) Study **Table 2.1** below. It shows the number of people commuting out of Wrexham County in North East Wales.

**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

- (i) Calculate the range in this dataset. [2]  
Show your working in the space below.

Range .....

- (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]

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- (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]

..... %



(iv) Describe **two** ways in which counter-urbanisation has affected patterns of commuting in the UK.

[4]

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(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]

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(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]

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

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(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]

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(c) (i) What are global cities? Tick (✓) the correct definition below.

[1]

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.	

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

Name of global city .....

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(iii) Study the information in **Resource Box 2.3**.

### 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.

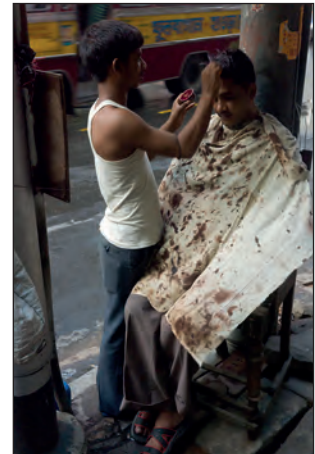
#### Location of Kolkata



#### Slum quarter, Shibpur district



#### Many people work in the informal sector



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.

#### Urban development



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







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**End of Question 2**



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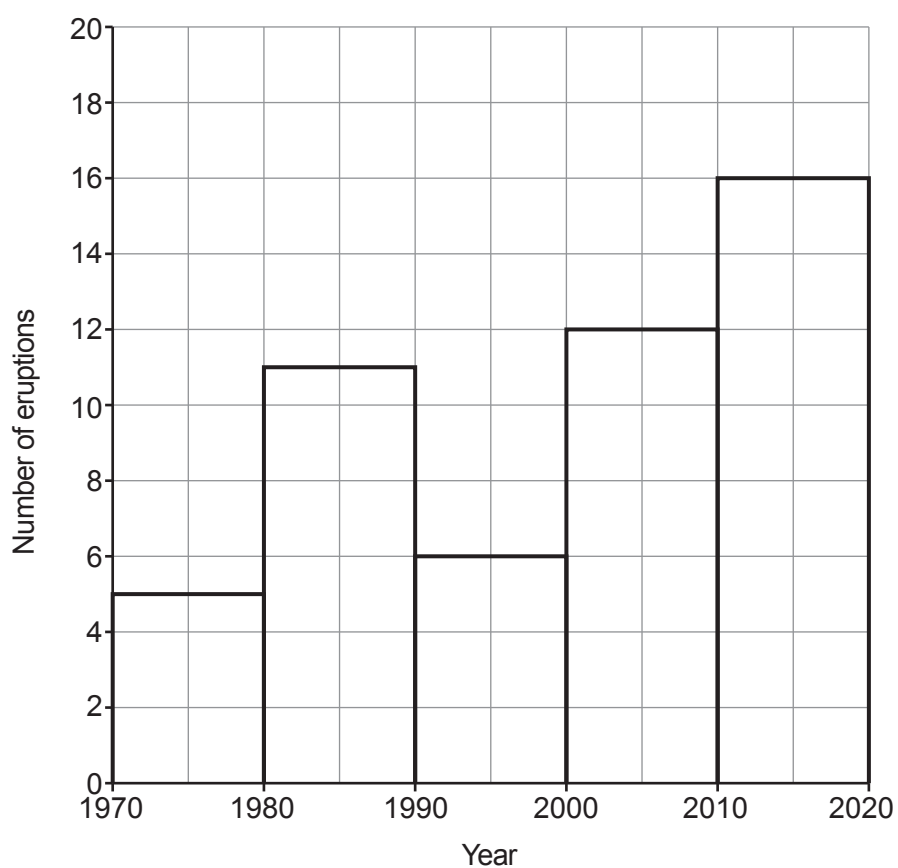
**SECTION B: OPTIONS**

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

**Graph 3.1 – Number of Larger Volcanic Eruptions 1971–2020**



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only

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

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(ii) Stratovolcanoes usually have a VEI of 3 and above.  
Give **two** reasons why stratovolcanoes are dangerous. [4]

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

Way 1

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Way 2

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(c) Study the information in **Resource Box 3.2** below.

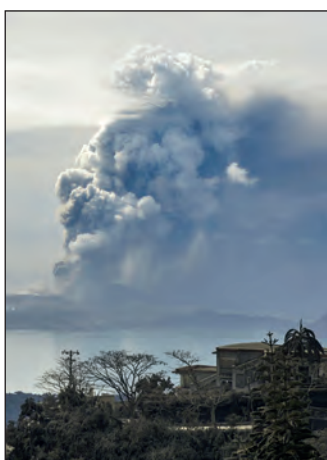
### Resource Box 3.2 – Information about The Philippines

- 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.

#### Location of The Philippines

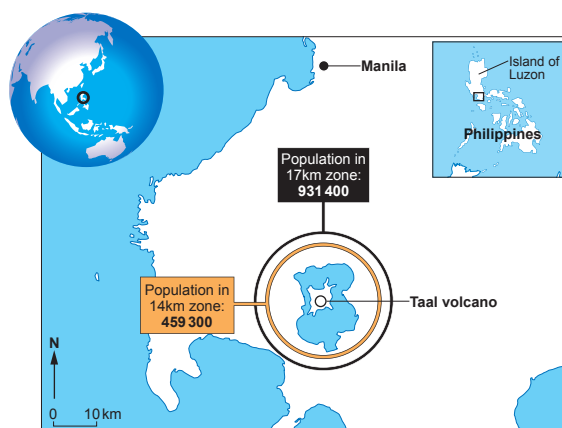


#### Taal eruption January 12, 2020



**Ambulance covered in ash**

#### The Location of Taal Volcano on the island of Luzon



#### 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.



‘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]

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**End of Question 3**





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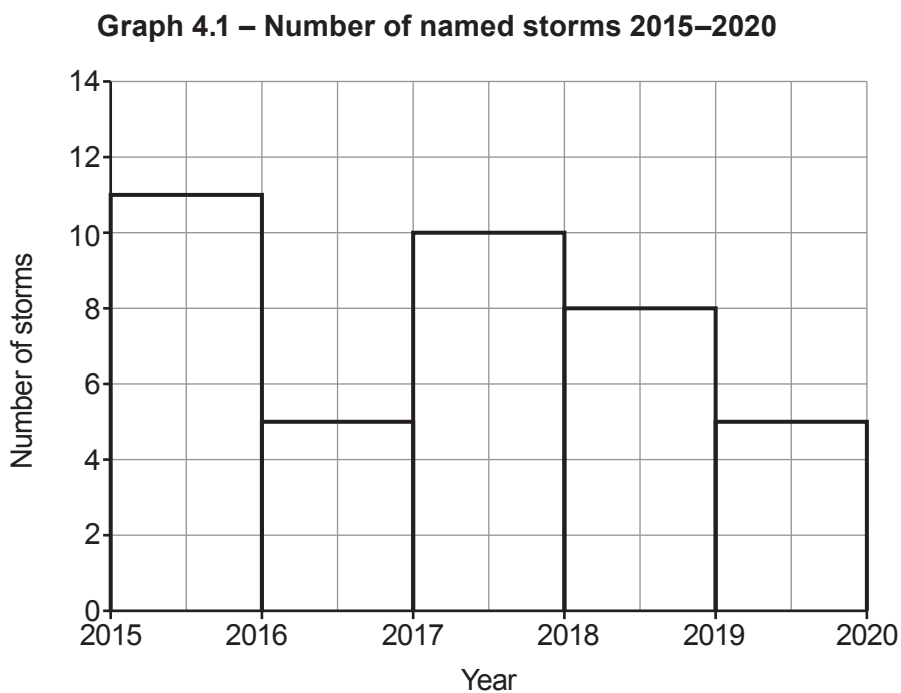
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**THEME 4: Coastal Hazards and their Management**

If you have answered question 3, **do not** answer question 4.

4. (a) Study the histogram below. 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]

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Examiner  
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(ii) Give **two** reasons why powerful storms increase vulnerability to coastal erosion.

[4]

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

[2]

Way 1

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Way 2

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(c) Study the information in **Resource Box 4.2** below.

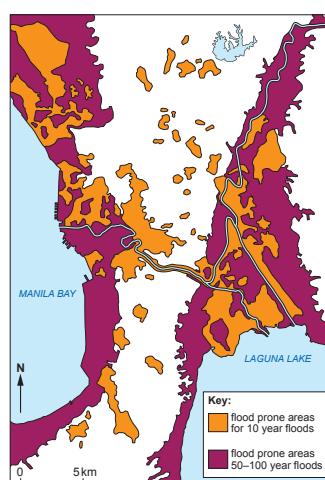
### Resource Box 4.2 – Information about The Philippines

- 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.

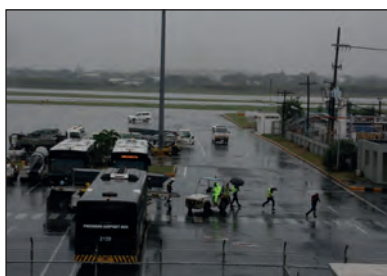
#### Location of the Philippines



#### 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**

### 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.



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'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]

Ruled area for writing the answer to the question.



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Additional space for question 4(c) only:

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**End of Question 4**

**END OF PAPER**



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

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Landranger series (1:50 000 scale)  
**LANDRANGER MAP SYMBOLS**

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

**LAND FEATURES**

**RAILWAYS**

**PUBLIC RIGHTS OF WAY** Not shown on maps of Scotland

**OTHER PUBLIC ACCESS**

**BOUNDARIES**

**WATER FEATURES**

**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**

**ROCK FEATURES**

**TOURIST INFORMATION**



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**GEOGRAPHY A – Component 1**

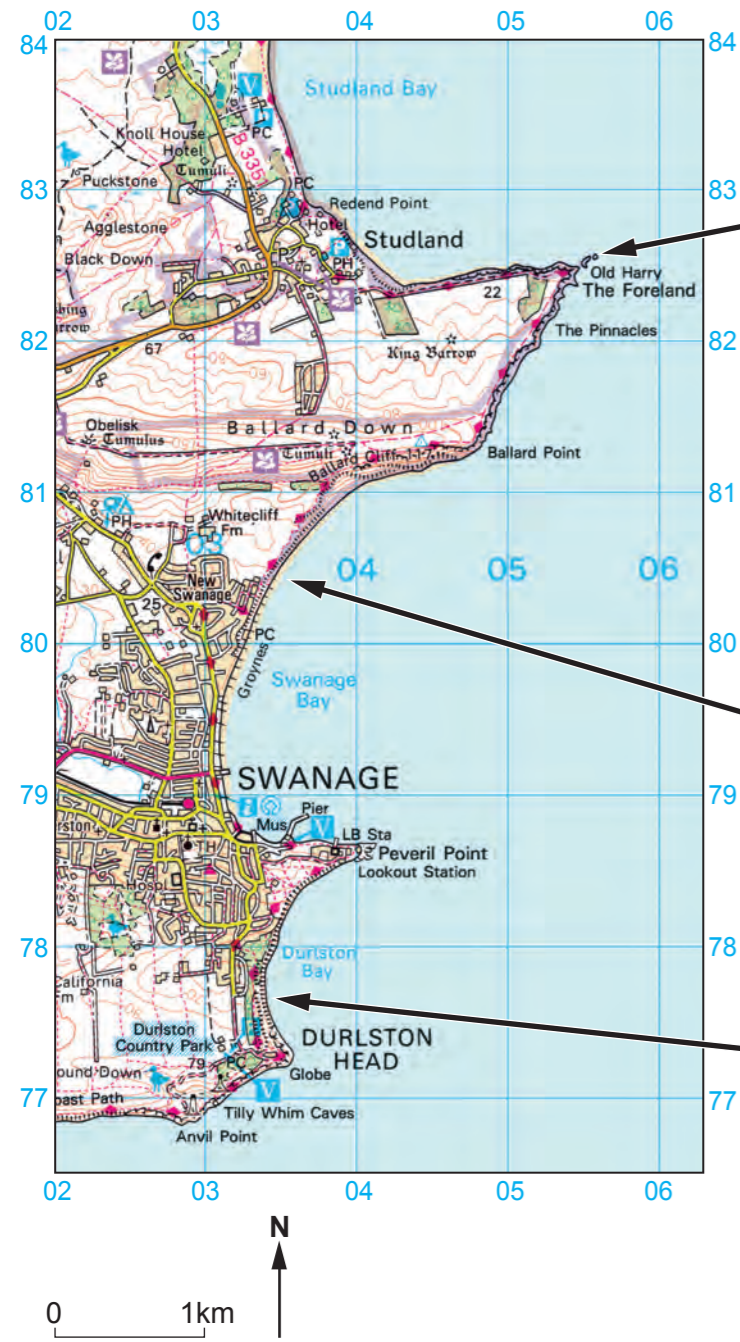
**Resource Folder**

**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

