Surname	Centre Number	Candidate Number
First name(s)		0

GCSE

C112U30-1

S23-C112U30-1

FRIDAY, 16 JUNE 2023 – AFTERNOON

GEOGRAPHY B – Component 3

Applied Fieldwork Enquiry

1 hour 30 minutes

For Examiner's use only		
	Maximum Mark	**Mark Awarded**
Part A	**18**	
Part B	**18**	
Part C	**36**	
SPaG	**4**	
Total Marks	**76**	

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ADDITIONAL MATERIALS

Resource Folder. You may also require a calculator and a ruler.

INSTRUCTIONS TO CANDIDATES

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

You may use a pencil for graphs and diagrams only.

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

Answer **all** questions.

Write your answers in the spaces provided in this booklet. 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.

You are reminded that assessment will take into account your ability to spell, punctuate and use grammar and specialist terms accurately in your answer to Part C, Question **3**(f).

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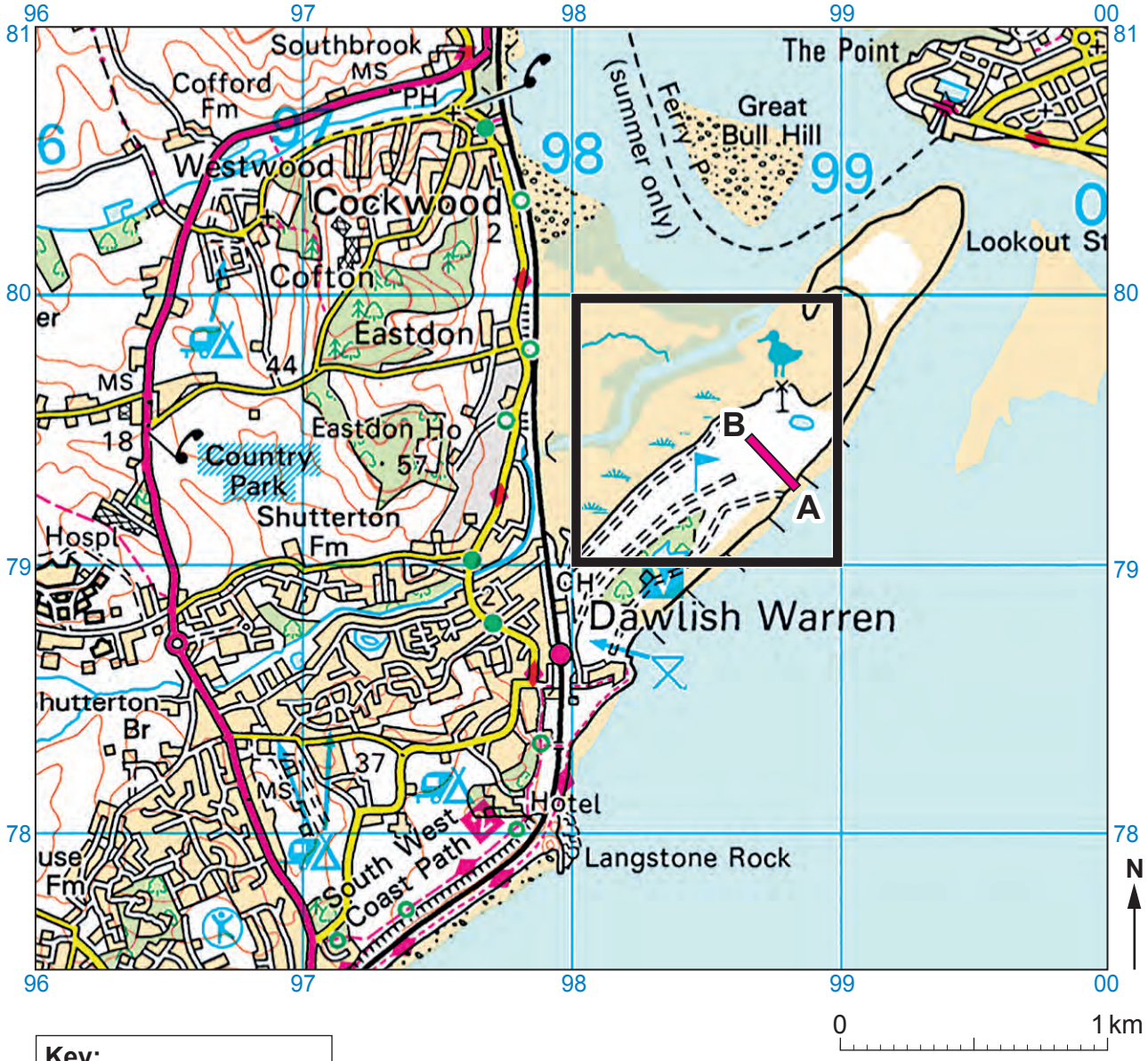
Part A: Investigating the use of transects in fieldwork

Answer **all** parts of this question.

1. (a) Students decided to investigate vegetation changes across a sand dune.

Study **Map 1.1**. It shows Dawlish Warren sand dunes and town. In grid square 9879 (outlined) it shows the location of a transect (A–B) and sand dunes that students used to collect their data.

Map 1.1 – Dawlish Warren, a small town on the south coast of England



Key:

B — A = transect

A key for the OS map is on the back page of the Resource Folder

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(i) Tick (✓) the correct length of the transect in grid square 9879. [1]

Length of transect (m)	Tick (✓) one
50	
100	
250	

(ii) Tick (✓) the correct direction of the transect in grid square 9879. [1]

Direction of transect	Tick (✓) one
North East to South West	
South East to North West	
West to East	

(iii) Give the 6-figure grid reference of the start of the transect at point A. [1]

.....

(iv) Great Bull Hill is found in grid square 9880 on **Map 1.1**. It is a bank of sand and shingle .
Estimate the area of Great Bull Hill. [1]

Estimated area	Tick (✓) one
1.00 km^2	
0.20 km^2	
0.40 km^2	

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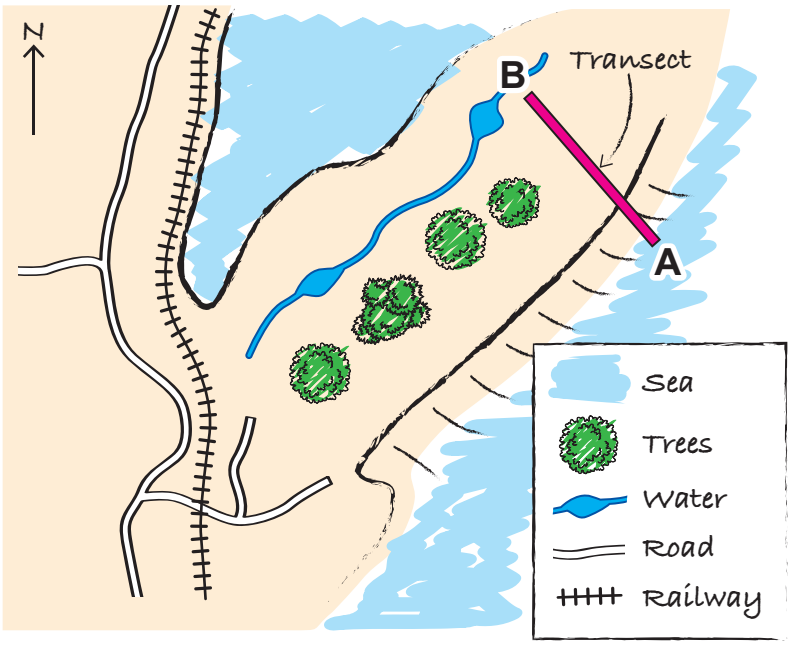
(b) Study **Sketch Map 1.2**.

Sketch Map 1.2 – Location of the vegetation transect



Give **one strength** and **one weakness** of **Sketch Map 1.2** to show the location of the transect. [2]

Strength: .....

.....

Weakness: .....

.....

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(c) Study **Photograph 1.3**.

Photograph 1.3 – Location of the start (point A) of the transect along Dawlish Warren

Students used systematic sampling to select where to measure the vegetation along the transect.

State **one advantage** of using systematic sampling to measure vegetation along this transect. [2]

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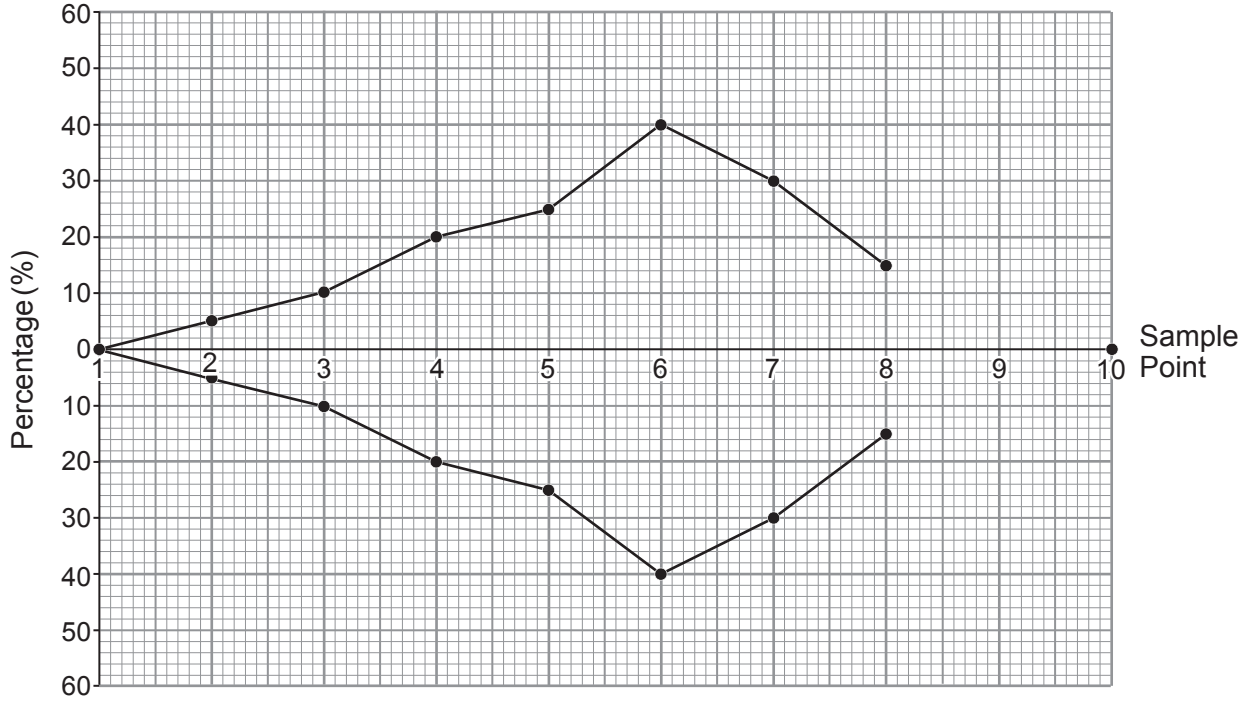
(d) Study **Table 1.4**. It shows part of the students' results.

Table 1.4 – Vegetation found along a sand dune transect, in percentage (%)

Sample Point	**1** Closest to the sea (A)	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10** Furthest away from the sea (B)
Bare sand	100	85	65	45	15	5	5	5	5	5
Marram Grass	**0**	**10**	**20**	**40**	**50**	**80**	**60**	**30**	**20**	**0**
Gorse	0	0	0	0	5	10	20	25	30	40
Bramble	0	0	0	0	0	0	0	25	30	40
Other	0	5	15	15	30	5	15	15	15	15

(i) Complete **Diagram 1.5** below. Use the data in **Table 1.4**. [2]

Diagram 1.5 – Kite diagram to show percentage of Marram Grass found along transect



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(ii) Tick (✓) **two** correct statements in the table below. Use the information in **Table 1.4**. [2]

	Tick (✓) two
The maximum percentage of Marram Grass in a quadrat is 80%.	
Gorse and Bramble are the most common plants in the middle of the transect.	
Bare sand is only found in 6 of the sample points.	
Gorse only grows close to the sea at a maximum of 30%.	
Brambles are only found further away from the sea.	

(e) (i) This question is about your own fieldwork experience of using **transects**.

I used a transect when investigating .....

Give **one strength** and **one weakness** of using a transect to collect your data. [2]

Strength: .....

.....

Weakness: .....

.....

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(ii) Strengths of data presentation methods include:

1. **Clear** to interpret
2. **Location** is shown
3. **Relevant data** is displayed.

Explain why a presentation method for your transect data showed some of these strengths. [4]

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Additional space for Question **1**(e)(ii) only:

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END OF PART A

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Part B: Investigating Inequality

Answer **all** parts of this question.

2. (a) A group of students decided to investigate inequality in the city of York, North Yorkshire, England. Study **Photograph 2.1**.

Photograph 2.1 – City of York, North Yorkshire, England

Tick (✓) **three** enquiry questions that could be chosen in an investigation of inequality in York. [3]

Enquiry Question	Tick (✓) three
How does the microclimate vary within York city?	
To what extent do tourist visits influence the provision of car parking spaces in York?	
How does access to services vary between different suburbs of York?	
How does the standard of living compare between central York and the suburbs?	
How effective are the river defences in York in protecting the cathedral?	
To what extent do York's historic buildings influence its identity?	
To what extent is the quality of life for families better than for students in York?	

C112U301
09

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(b) Study **Table 2.2**. It shows part of the students' **Environmental Quality Survey**. It shows the impact of litter and graffiti in York.

Table 2.2 – Part of the Environmental Quality Survey

GRAFFITI	LOW IMPACT	MEDIUM IMPACT	HIGH IMPACT
Every 10 metres	1 item	2 to 10 items	Over 10 items
Tally	𝍸	𝍷	None
Weighting	5	5	5
Score	15	10	0

LITTER	LOW IMPACT	MEDIUM IMPACT	HIGH IMPACT
Every 10 metres	1 piece	2 to 10 pieces	Over 10 pieces
Tally	𝍸	𝍷	𝍸 𝍷
Weighting	5	5	5
Score	20	15	.....

(i) Complete **Table 2.2** to show the high impact score for litter. [1]

(ii) Some local people feel that litter has a greater impact than graffiti on environmental quality. How would you adapt the survey to show this? [1]

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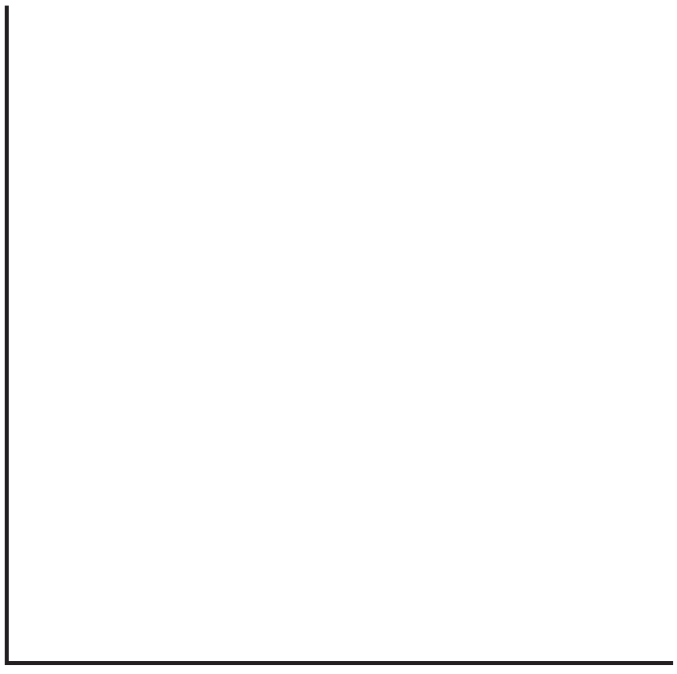
(c) Study **Table 2.3**. It shows the students' scores for environmental quality from the centre of York.

Table 2.3 – Transect data showing environmental quality in York

Distance from York City Centre (m)	Environmental Quality Index (EQI) Score (1 = low, 100 = high)
0	20
200	30
400	65
600	55
800	50
1000	90

Sketch an appropriate graph to display the data in **Table 2.3**. Use the outline below. [4]

A graph to show distance and EQI from York City Centre



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(d) A student wrote some statements in their investigation report. (Circle) the correct term for each statement. [3]

Statement	Term
I completed the environmental quality survey myself, it was my own opinion only.	Bias Secondary data Conclusion
When I looked at my recording sheet back at school, I realised I couldn't read my writing for all the readings, so I had to guess some.	Accuracy Control group Evaluation
I measured the litter along one street before and after the football match and I compared my results.	Bias Secondary data Control group

(e) (i) This question is about your own fieldwork experience of investigating **inequality**.

Title of investigation on inequality .....

Give **one reason** why your data collection was reliable. [2]

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(ii) Evaluate **one strength** and **one limitation** of your conclusions. [4]

Strength: .....

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Limitation: .....

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Additional space for Question **2**(e)(ii) only:

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END OF PART B

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Part C: The wider UK dimension

Answer **all** parts of this question.

You should use your understanding of UK geography to support your answers.

3. (a) Study the graphs on **page 2** of the **Resource Folder**.

Tick (✓) **three** correct statements in the table below. Use **page 2** of the **Resource Folder**. [3]

	Tick (✓) three
The UK's population is projected to reach 70 million by 2031.	
Most people in the UK live in towns.	
Town populations have a higher % growth than city populations.	
The UK's population has declined since 1951.	
The highest urban percentage growth in population, between 2001 and 2019, was in inner London.	
11 million people lived in the UK in 2019.	
The UK's population grew by over 15 million people between 1951 and 2021.	

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(b) (i) Explain why some people move from rural to urban areas in the UK. [6]

(ii) Give **two reasons** why rural to urban migration can have an impact on UK urban areas. [4]

Reason 1: .....

Reason 2: .....

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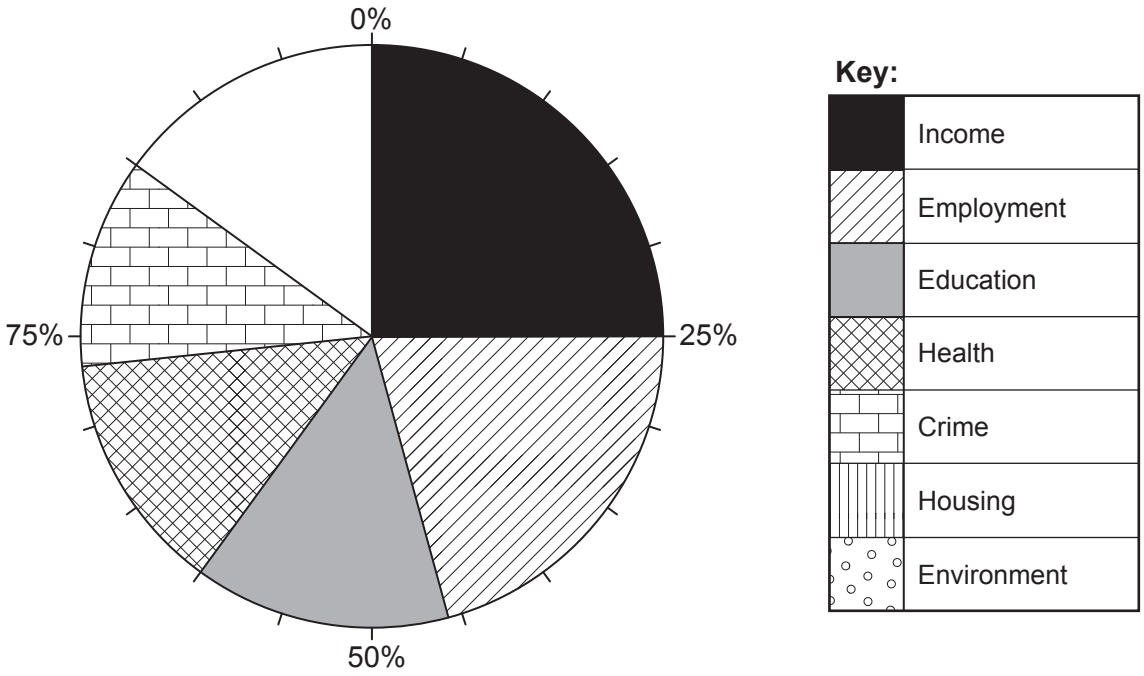
(c) The Index of Deprivation is a way of measuring several different inequalities in an area. Study the table on **page 3** of the **Resource Folder**.

(i) Complete the pie chart with the data for Housing and Environment. Use data from **page 3** of the **Resource Folder**. [2]



(ii) Give **one** way a pie chart is a suitable chart to present this data. [1]

.....

.....

(d) There are many strategies to improve the lives of people in the UK. The UK Government sets a minimum hourly wage, by age, that employers must pay anyone who works for them. This is the lowest amount of wage per hour people get. Study **page 4** of the **Resource Folder**.

(i) Name an alternative graph that you could use to represent the data on **page 4** of the **Resource Folder**. [1]

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(ii) Graphs should be easy to draw and understand. Give **one** other way the graph you have chosen is suitable. [1]

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(iii) Give **one reason** why having a minimum hourly wage could reduce deprivation. [2]

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(e) Local strategies to reduce deprivation also include food banks. UK food banks give free food parcels to local people who need them. Study **page 5** of the **Resource Folder**.

Compare the numbers of food parcels distributed in 2019 and 2020. Use **page 5** of the **Resource Folder**. [4]

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(f) Study the information on **page 6** of the **Resource Folder**. It shows three strategies to manage inequality:

1. Improving Transport
2. Community Support
3. Economic Assistance

Which of these three strategies do you think is the **most sustainable** way to reduce inequality in the UK? [12]

Use the information in the **Resource Folder** and your wider geographical understanding to support your answer.

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

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Additional space for Question **3**(f) only:

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END OF PART C

END OF PAPER

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

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

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FRIDAY, 16 JUNE 2023 – AFTERNOON

GEOGRAPHY B – Component 3

RESOURCE FOLDER

This folder is for use with questions in **Component 3**.
This folder need not be handed in with your answer booklet.

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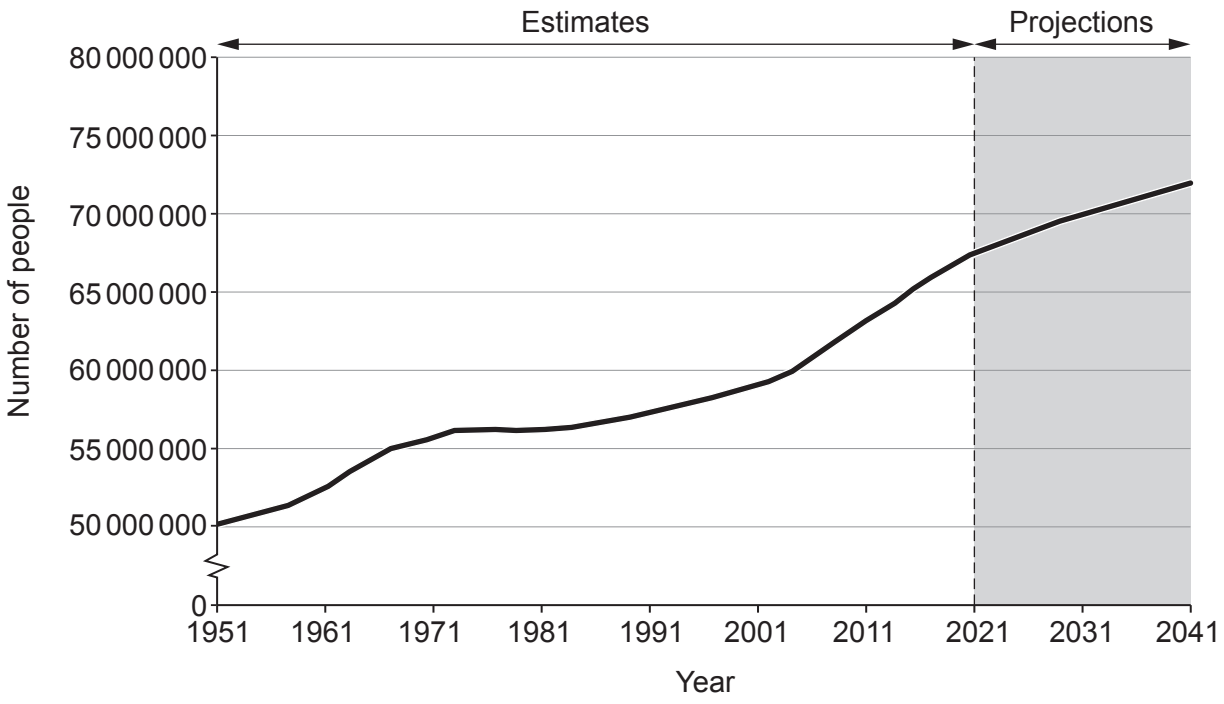
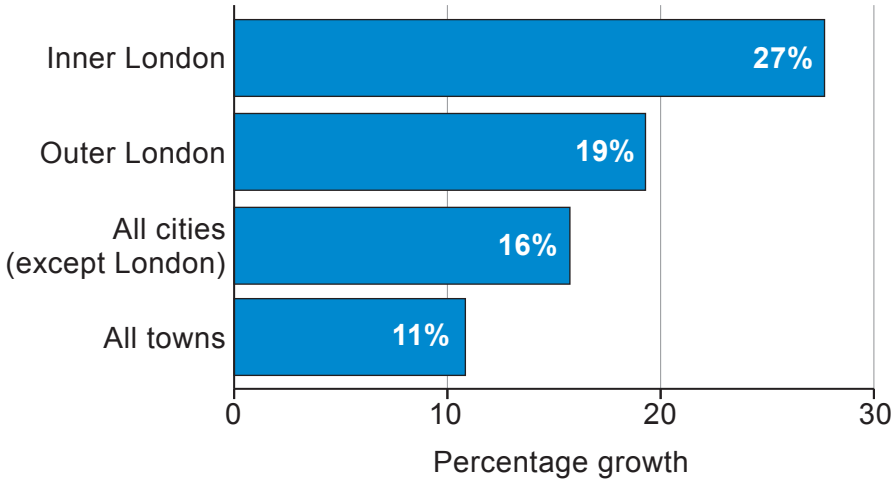
The UK's population estimates and projections



Percentage growth of population for selected urban areas in the UK between 2001 and 2019



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Categories that make up the Index of Deprivation

Category	Percentage each category contributes to the Index of Deprivation
Income	25%
Employment	21%
Education	14%
Health	13%
Crime	12%
Housing	10%
Environment	5%

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Minimum wage per hour in the UK, April 2022

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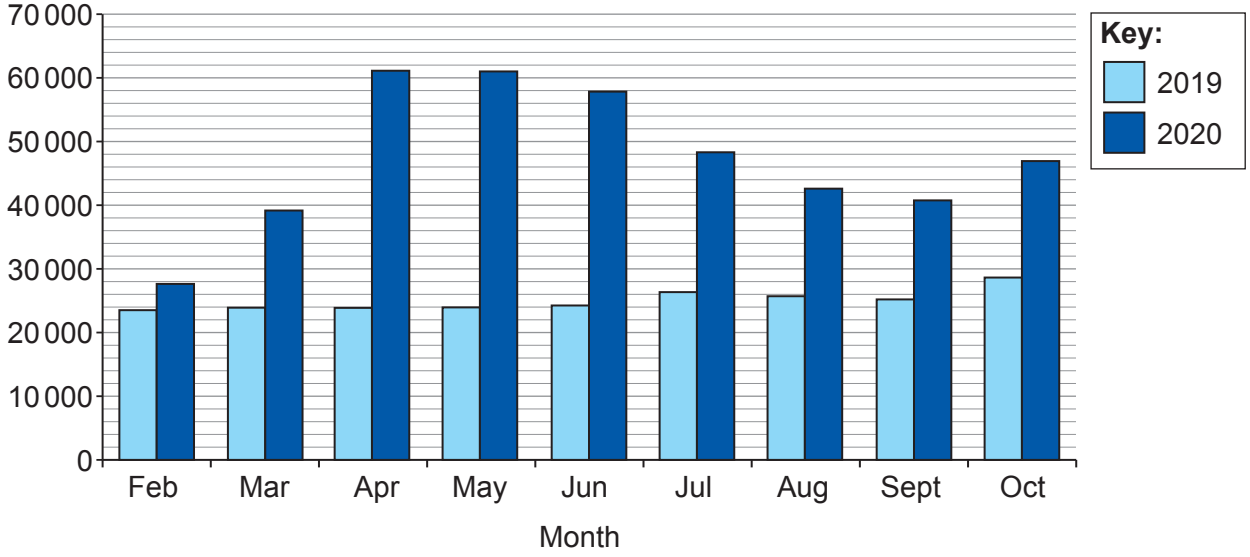
The number of food parcels distributed by local food banks in the UK (February to October, 2019 and 2020)



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Turn over.

Strategies to Manage Inequality

IMPROVING TRANSPORT

- Bike to work – provides money to buy a bike, so that people can bike to work.
- Free bus and train passes for urban residents.

COMMUNITY SUPPORT

- Neighbourhood Watch – local people looking out for crime and reporting it.
- Resource Banks – donated furniture, food and toys shared within a community.

ECONOMIC ASSISTANCE

- Affordable homes – housing for people on lower incomes.
- Government grants – money and advice from government to help start local businesses.

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PMT

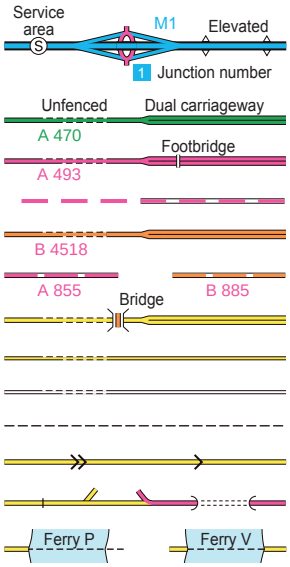
Landranger series (1:50 000 scale)

LANDRANGER MAP SYMBOLS

Ordnance Survey

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)

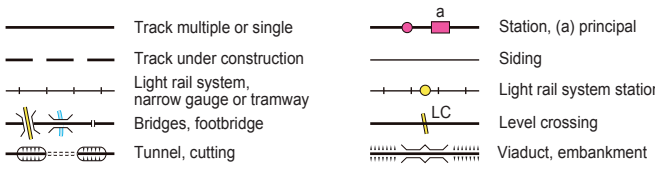
Forestry Commission

Natural Resources Wales

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

National 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

ABBREVIATIONS

See website for full list

Br	Bridge	MS	Milestone
Cemy	Cemetry	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

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 evedence 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.

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

Site of antiquity

Visible earthwork

VILLA Roman

Castle Non-Roman

1066 Site of battle (with date)

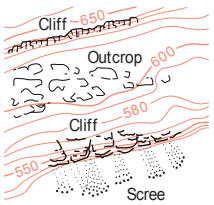
HEIGHTS

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



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

4 8 Cycle Network number; National / Regional

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

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

BOUNDARIES

National

District

County, Unitary Authority, Metropolitan District or London Borough

National Park

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

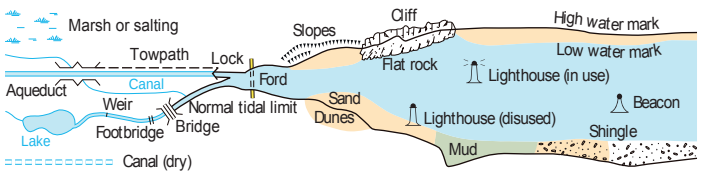
P&R Park & Ride, all year / seasonal

Phone, public / emergency / roadside assistance

Recreation / leisure / sports centre

World Heritage site or area

WATER FEATURES



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