

Surname	Centre Number	Candidate Number
First name(s)		0



**GCSE**

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	
<b>Total Marks</b>	<b>76</b>	

**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**




- (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]
- .....

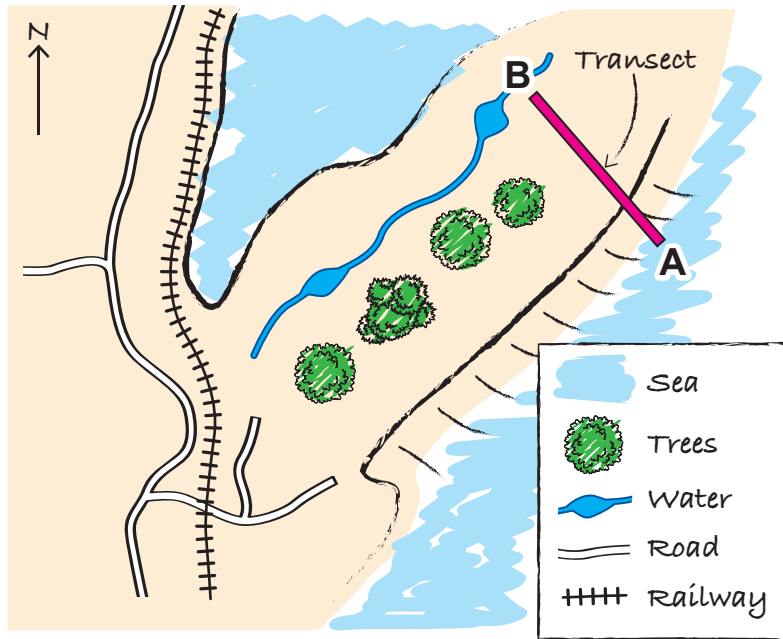
- (iv) Great Bull Hill is found in grid square 9880 on **Map 1.1**. It is a bank of sand and shingle . Estimate the area of Great Bull Hill. [1]

Estimated area	Tick (✓) one
1.00 km <sup>2</sup>	
0.20 km <sup>2</sup>	
0.40 km <sup>2</sup>	



(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: .....

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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.

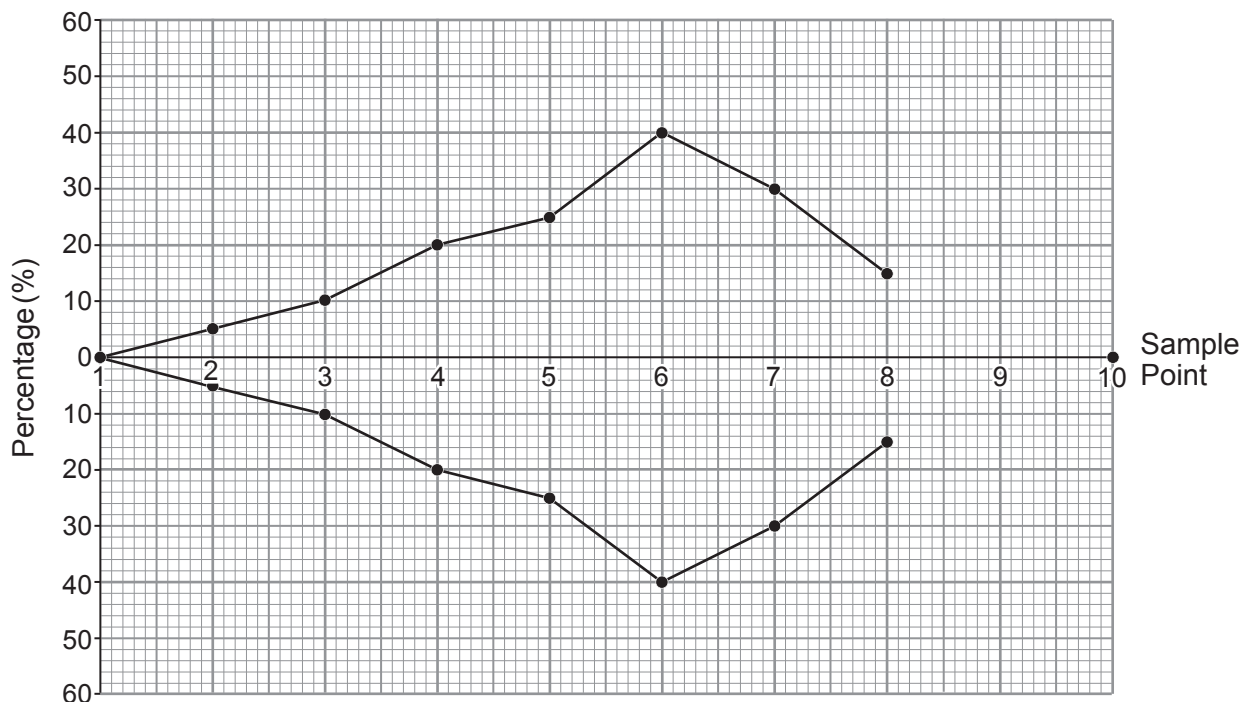
**Table 1.4 – Vegetation found along a sand dune transect, in percentage (%)**

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



(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: .....

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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**



**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?	





- (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**

<b>GRAFFITI</b>	<b>LOW IMPACT</b>	<b>MEDIUM IMPACT</b>	<b>HIGH IMPACT</b>
<b>Every 10 metres</b>	1 item	2 to 10 items	Over 10 items
<b>Tally</b>			None
<b>Weighting</b>	5	5	5
<b>Score</b>	15	10	0

<b>LITTER</b>	<b>LOW IMPACT</b>	<b>MEDIUM IMPACT</b>	<b>HIGH IMPACT</b>
<b>Every 10 metres</b>	1 piece	2 to 10 pieces	Over 10 pieces
<b>Tally</b>			
<b>Weighting</b>	5	5	5
<b>Score</b>	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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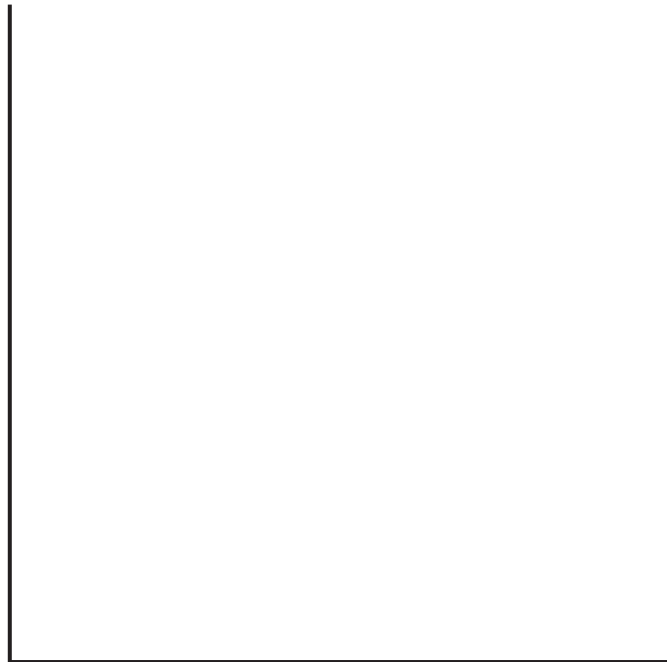
- (c) Study **Table 2.3**. It shows the students' scores for environmental quality from the centre of York.

**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**



(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**



**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.	





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

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

Reason 1: .....

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Reason 2: .....

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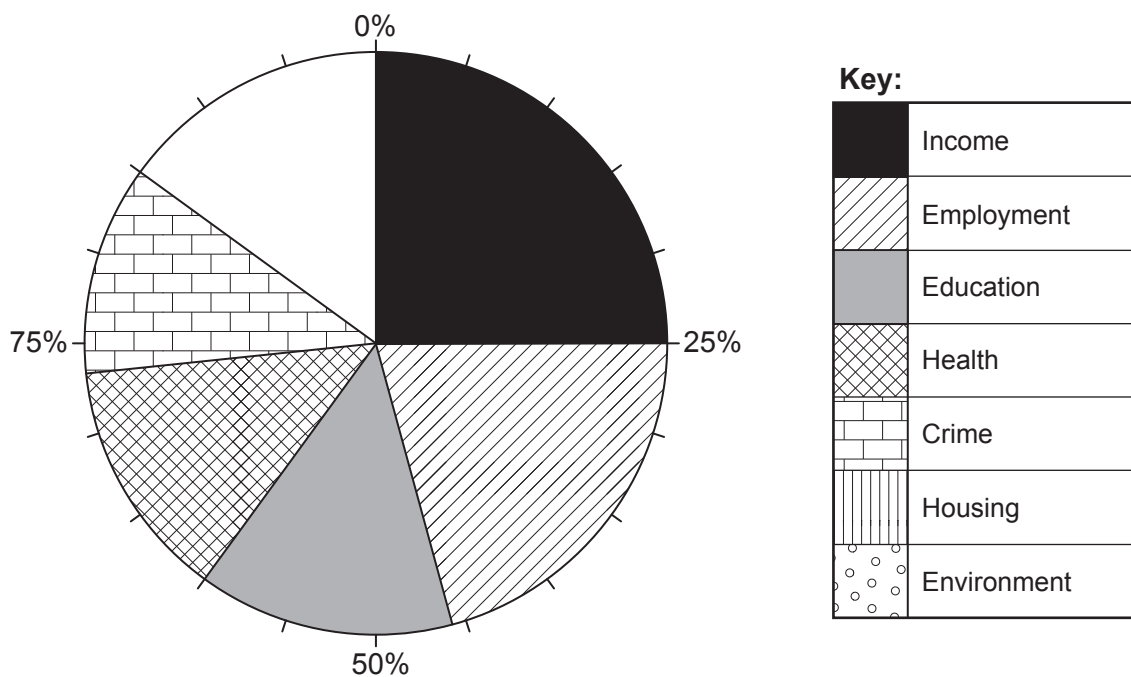
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(c) The Index of Deprivation is a way of measuring several different inequalities in an area. Study the table on **page 3** of the **Resource Folder**.

(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]

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(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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Examiner  
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**END OF PART C**

**END OF PAPER**







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**FRIDAY, 16 JUNE 2023 – AFTERNOON**

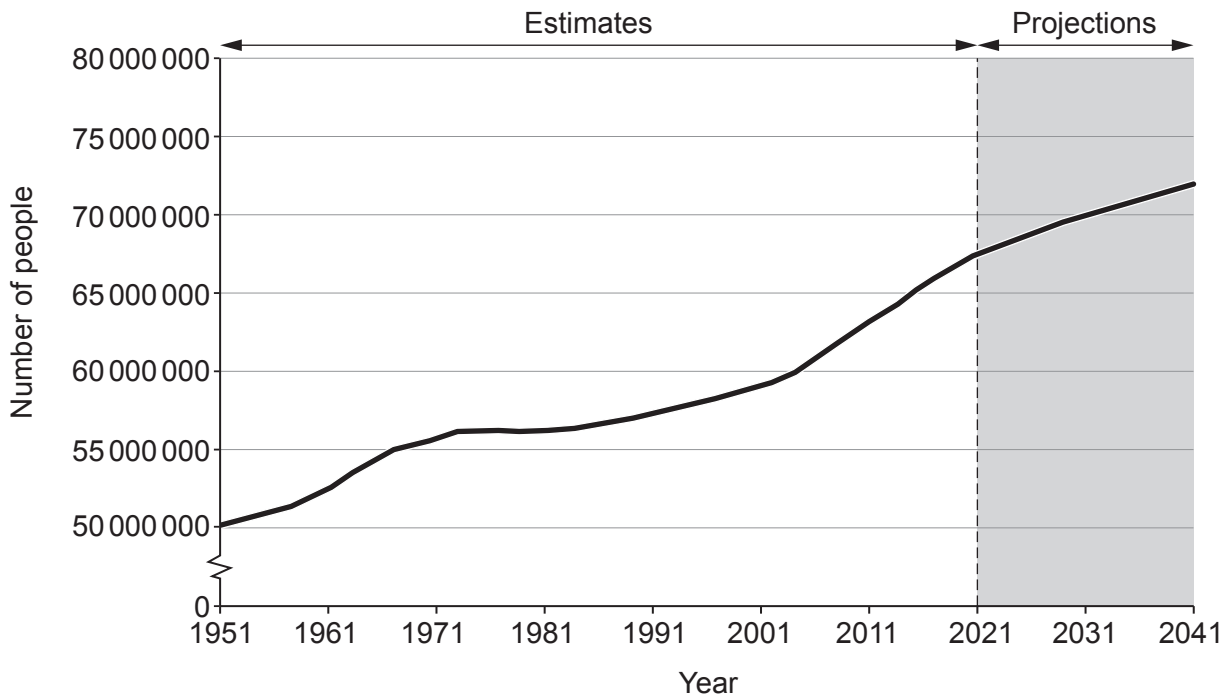
**GEOGRAPHY B – Component 3**

**RESOURCE FOLDER**

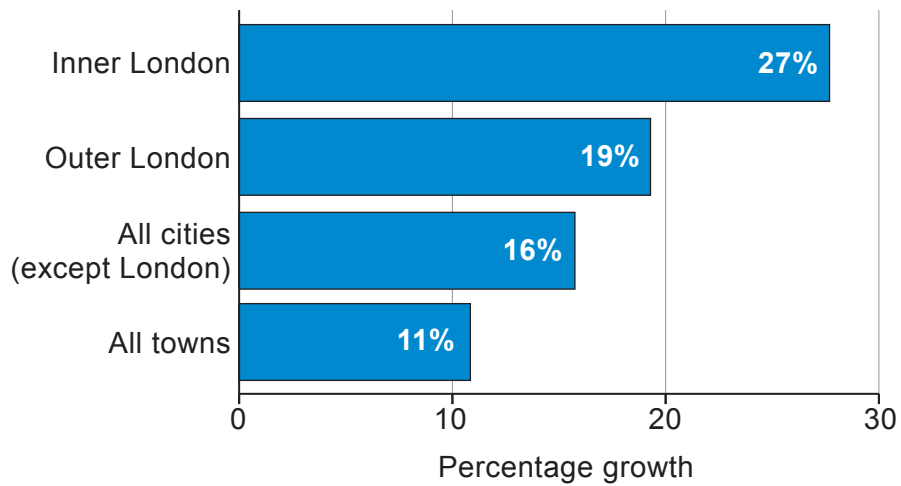
This folder is for use with questions in **Component 3**.  
This folder need not be handed in with your answer booklet.

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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**



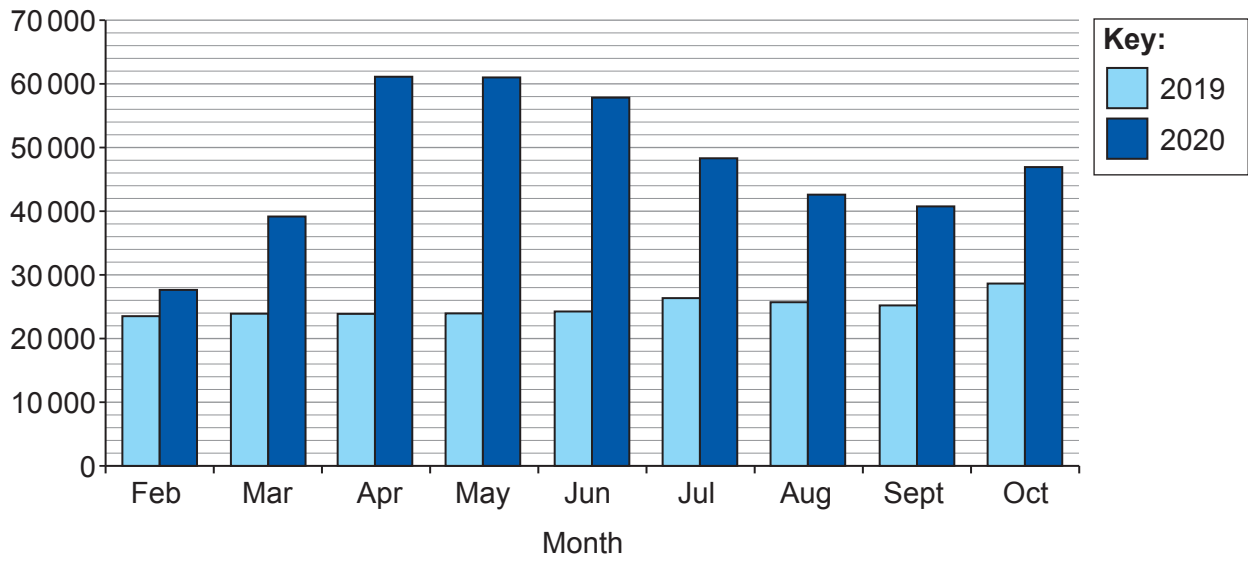
**Categories that make up the Index of Deprivation**

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

### Minimum wage per hour in the UK, April 2022



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



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



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

Service area (S), Junction number (M1), Elevated, Motorway (dual carriageway), Unfenced, Dual carriageway, Primary Route (A 470), Footbridge, Main road (A 493), Road under construction (B 4518), Secondary road (A 855, B 885), Narrow road with passing places, Bridge, 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 P (passenger), Ferry V (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	Cemetery	Mus	Museum
CG	Cattle grid	P	Post office
CH	Clubhouse	PC	Public convenience (in rural areas)
Coil	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. 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	VILLA	Roman	1066	Site of battle (with date)
★	Visible earthwork	Castle	Non-Roman		

**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; 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.

**HEIGHTS**

Contours are at 10 metres vertical interval. Heights are to the nearest metre above mean sea level.

**ROCK FEATURES**

Cliff -650, Outcrop 600, Scree -550.

**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.

**BOUNDARIES**

National, District, County, Unitary Authority, Metropolitan District or London Borough, National Park.

**WATER FEATURES**

Marsh or salting, Aqueduct, Weir, Footbridge, Bridge, Lock, Ford, Sand Dunes, Mud, Cliff, Flat rock, Lighthouse (in use), Lighthouse (disused), Beacon, Shingle, High water mark, Low water mark, Normal tidal limit.