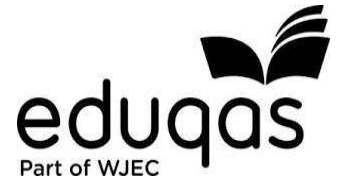




GCSE

C112U30-1



THURSDAY, 12 JUNE 2025 – MORNING

GEOGRAPHY B – COMPONENT 3

APPLIED FIELDWORK ENQUIRY

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

Surname

First name(s)

Centre Number

Candidate Number

0

ADDITIONAL MATERIALS

RESOURCE FOLDER. You may also require a calculator and a ruler.

An OS 1:50,000 map key is on the back page of this booklet.

INSTRUCTIONS TO CANDIDATES

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

You may use a pencil for graphs and diagrams only.

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

(Turn over)

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(g).

(Turn over)

PART A:

**INVESTIGATING GEOGRAPHICAL FLOWS
IN FIELDWORK**

Answer ALL parts of this question.

- 1 (a) Students decided to investigate the effect of wet or dry ground conditions on infiltration rates.**

Study MAP 1.1 opposite.

- (i) Give the six-figure grid reference of site 1.**
[1 mark]
-

(Turn over)

- 1 (a)(ii) Tick (✓) the correct distance between sites 3 and 6. [1 mark]

DISTANCE BETWEEN EACH MEASUREMENT SITE	TICK (✓) ONE
100 m	
250 m	
500 m	

(Turn over)

1 (a)(iii) Give ONE strength of using an equal distance to select these measurement sites on Hallam Moors. [2 marks]

(Turn over)

- 1 (b) Students visited the area twice, once in wet weather conditions and once in dry weather conditions. On each occasion they took measurements at all 10 sites.**

Study TABLE 1.2 on the next page. It shows the data the students collected.

(Turn over)

TABLE 1.2:**INFILTRATION RATES IN WET AND DRY CONDITIONS**

	INFILTRATION RATE (mm / min)	
SITE	WET CONDITIONS	DRY CONDITIONS
1	0.2	0.4
2	0.7	1.4
3	1.3	4.1
4	0.8	2.6
5	2.6	4.3
6	0.3	2.4
7	1.3	4.1
8	1.6	3.4
9	0.3	2.2
10	0.9	3.1

(Turn over)

The mean infiltration rate for wet conditions is 1.0 (mm/min). Calculate the mean infiltration rate for dry conditions. Show your working in the box below. [2 marks]

Answer: _____ (mm/min)

(Turn over)

1 (c) Study TABLE 1.3 opposite.

(i) What is the modal class of the wet measurements shown in TABLE 1.3?

[1 mark]

(Turn over)

1 (c)(ii) Complete GRAPH 1.4, opposite using data from TABLE 1.3. [1 mark]

(d) Give TWO conclusions you could draw from the students' results on infiltration rates in wet and dry conditions. Use evidence from the resources in your answer. [4 marks]

Conclusion 1: _____

(Turn over)

Conclusion 2: _____

(Turn over)

1 (e)(i) This question is about your own fieldwork experience of INVESTIGATING GEOGRAPHICAL FLOWS.

My fieldwork location was _____

Give ONE reason your fieldwork location was suitable to investigate geographical flows. [2 marks]

(Turn over)

(Turn over)

1 (e)(ii) Explain why ONE OR MORE data presentation methods you used were suitable to show your results.

[4 marks]

Name of my data presentation method(s):

(Turn over)

END OF PART A

(Turn over)

PART B: INVESTIGATING SUSTAINABILITY

Answer ALL parts of this question.

- 2 A group of students decided to investigate the sustainability of communities in the county of Shropshire, England. Study PHOTOGRAPH 2.1 opposite.**

(Turn over)

2 (a) Tick (✓) TWO enquiry questions that could be chosen in an investigation of sustainable communities in Shropshire.

[2 marks]

ENQUIRY QUESTION	TICK (✓) TWO
How might pedestrianisation of town centres benefit residents in Shropshire?	
What types of vegetation can be found along rivers in Shropshire?	
In which months do river levels rise in Shropshire?	
Are the river flood defences maintained well enough to last into the 2030s?	
What types of retail provision are most common in Shropshire?	

(Turn over)

2 (b) Study RESOURCE FILE 2.2 opposite.

Give ONE strength and ONE weakness of using this secondary data in an investigation on sustainable communities. [4 marks]

Strength: _____

Weakness: _____

(Turn over)

(Turn over)

2 (c) Students collected data from local residents about their perceptions of the Benthall Grange development plans. They selected people by asking anyone that walked past them.

(i) Suggest ONE improvement students could make to this sampling method.

[2 marks]

(Turn over)

2 (c)(ii) Study GRAPH 2.3 opposite. It shows some of the data that students collected from local residents.

Complete the statements below.

[3 marks]

**Approximately _____
percent of people agreed that there
are enough schools and hospitals in
Benthall Grange development plans.**

**Local residents are split almost 50:50
about the number of**

(Turn over)

The main cause for concern among people was the lack of _____.

- 2 (c)(iii) Tick (✓) the correct alternative graph that could be used to represent the data in GRAPH 2.3:
[1 mark]

	TICK (✓)
Scatter Graph	
Pictogram	
Dispersion Graph	

(Turn over)

2 (d) This question is about your own fieldwork experience of INVESTIGATING SUSTAINABILITY. Evaluate the strengths AND weaknesses of your data collection methods. [6 marks]

My fieldwork investigation was:

Name of my data collection methods:

(Turn over)

(Turn over)

END OF PART B

(Turn over)

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 Urban areas in the UK can be used in different ways. Study MAP 3.1 opposite.

(Turn over)

3 (a) Tick TWO (✓) correct statements in the table below. Use the information in MAP 3.1. [2 marks]

	TICK (✓) TWO
There are equal numbers of cities in all categories.	
Aberdeen and Middlesbrough have the highest potential per person to produce food at 280 kg/yr.	
Cambridge has the lowest potential per person to produce food at 170 kg/yr.	
There is an increasingly high potential to produce food as you go further north in the UK.	
Bristol has the equal lowest potential to produce food of the urban areas on this map.	

(Turn over)

3 (b) Biodiversity in the UK is declining as more urban land is developed.

Study DIAGRAM 3.2 opposite.

(i) Calculate the percentage decrease in hedgehogs from the 1950s to 2024.

[2 marks]

Answer _____ **%**

(Turn over)

3 (b)(ii) Give ONE limitation of the data given in DIAGRAM 3.2. [1 mark]

(c) Explain why the redevelopment of brownfield sites can have benefits for urban areas in the UK. [6 marks]

(Turn over)

(Turn over)

(Turn over)

3 (d) Study GRAPH 3.3 opposite.

Tick (✓) THREE correct statements on the table on the next page. [3 marks]

(Turn over)

	TICK (✓) THREE
In July 2023 there were more fast speed charging points than rapid and ultra-rapid combined.	
The fast speed charging device is the least common device to be installed.	
Only slow speed charging devices are increasing in number.	
All speeds of charging device have increased from July 2022 to July 2023.	
Over 45 000 fast speed charging devices were installed between January 2023 and July 2023.	
Rapid speed charging devices have shown the slowest rate of increase between July 2022 to July 2023.	

(Turn over)

**3 (e) Explain why population increase
can create challenges to sustainable
urban living in the UK. [6 marks]**

(Turn over)

(Turn over)

3 (f) Study DIAGRAM 3.4 opposite.

Describe TWO changes in people's visits to green spaces from 2009 to 2019.

Use evidence from DIAGRAM 3.4 in your answer. [4 marks]

Change 1: _____

(Turn over)

Change 2: _____

(Turn over)

3 (g) Study the information on PAGE 2 of the RESOURCE FOLDER. It shows three strategies to make urban environments and communities more sustainable.

- 1. Using local resources**
- 2. Improving transport systems**
- 3. Managing green spaces**

Evaluate which of these THREE strategies you think is the best to make UK urban environments sustainable.

[12 marks]

Use the information in the RESOURCE FOLDER, the question paper 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 marks]

(Turn over)

(Turn over)

(Turn over)

(Turn over)

(Turn over)

(Turn over)

(Turn over)

(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)

[illegible]

(Turn over)

END OF PART C

END OF PAPER

(Turn over)

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

(Turn over)

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

(Turn over)

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

(Turn over)

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

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

MAP 1.1: TEN MEASUREMENT SITES ON HALLAM MOORS IN THE PEAK DISTRICT NATIONAL PARK, UK

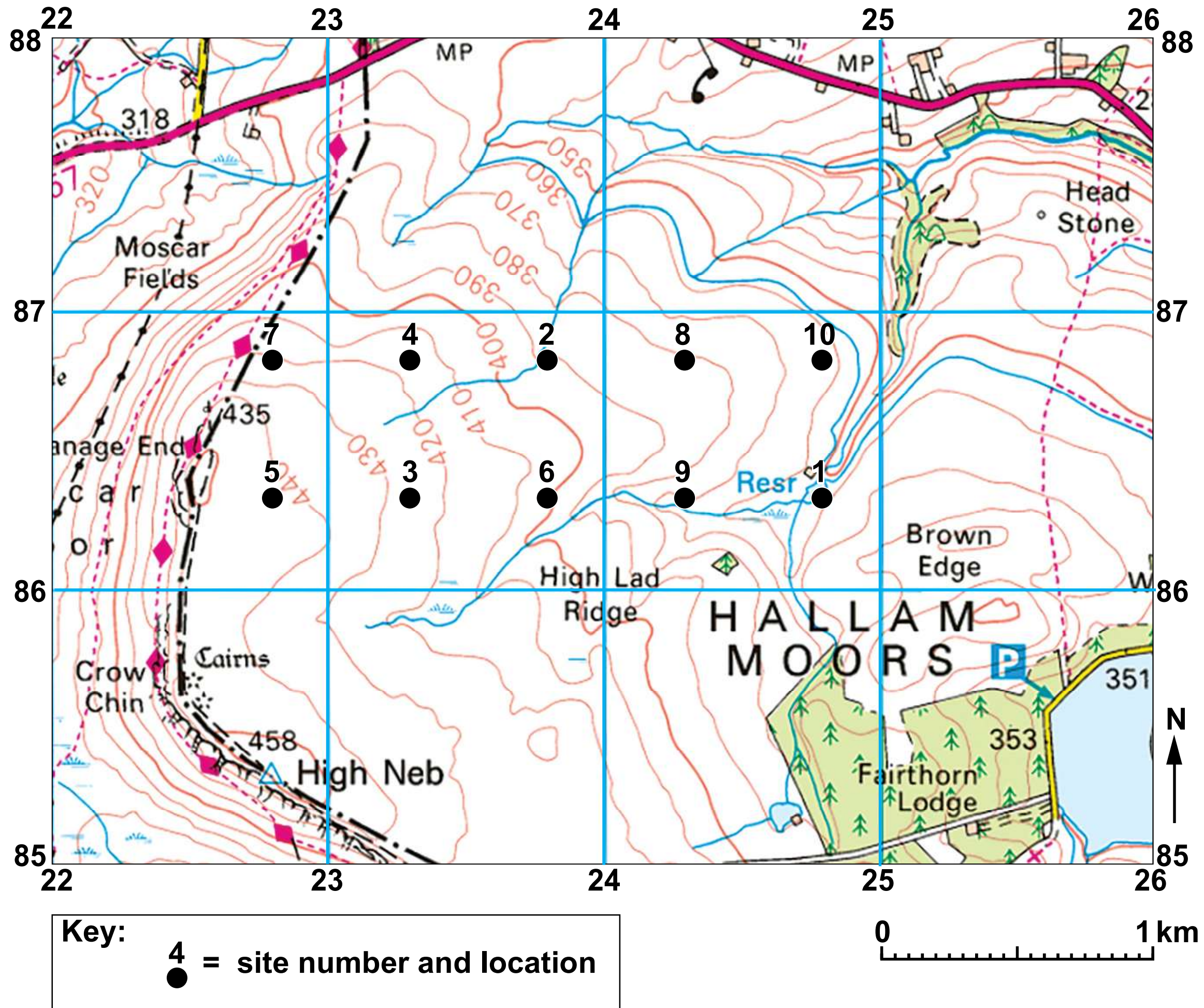
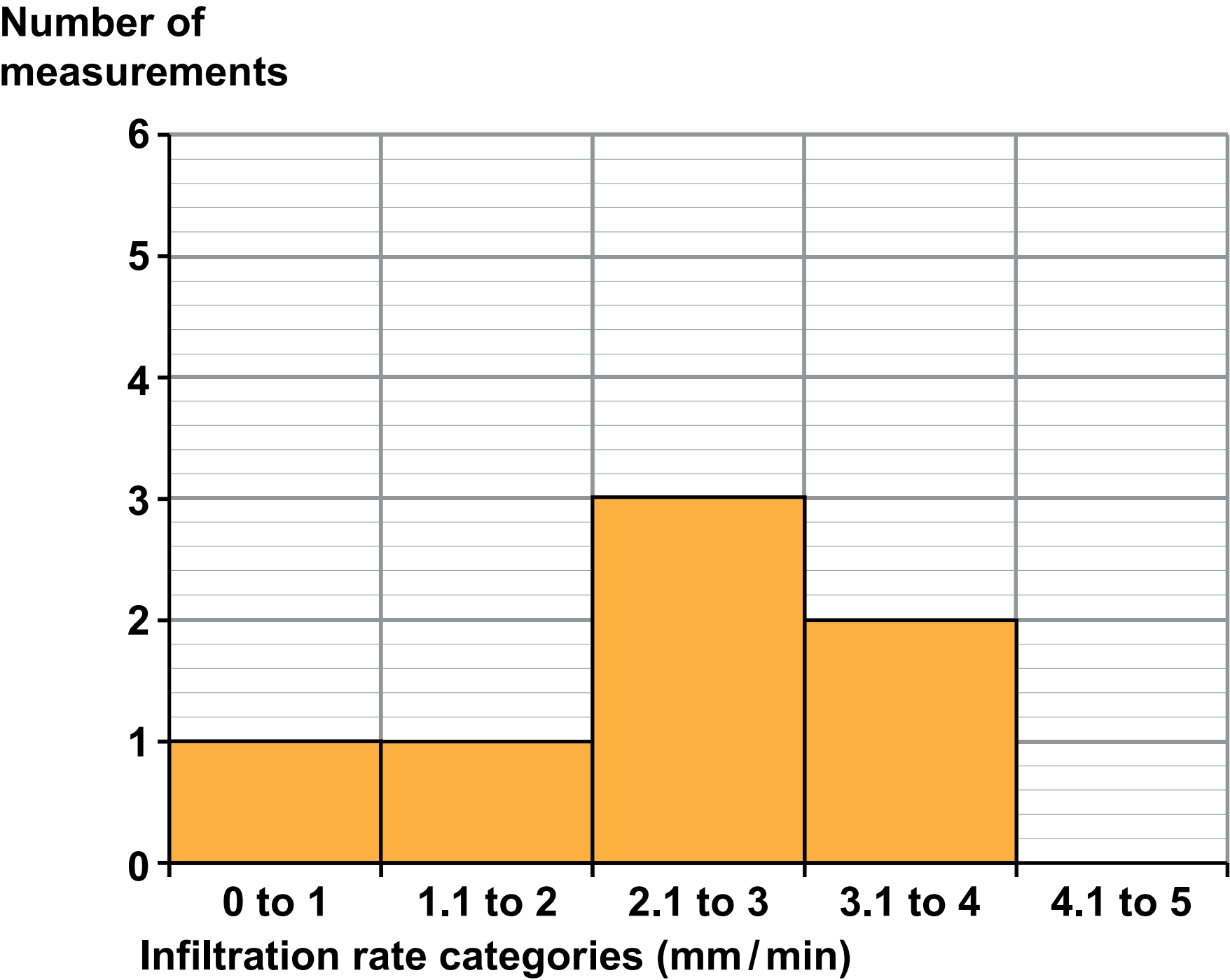


TABLE 1.3:
NUMBER OF MEASUREMENTS FOR EACH INFILTRATION CATEGORY

INFILTRATION RATE CATEGORY (mm / min)	NUMBER OF WET MEASUREMENTS	NUMBER OF DRY MEASUREMENTS
0 to 1	6	1
1.1 to 2	3	1
2.1 to 3	1	3
3.1 to 4	0	2
4.1 to 5	0	3

GRAPH 1.4: INFILTRATION RATES BY CATEGORY FOR DRY MEASUREMENTS



PHOTOGRAPH 2.1: A TOWN IN THE COUNTY OF SHROPSHIRE, ENGLAND



**RESOURCE FILE 2.2: SECONDARY DATA ON THE PLANNED
BENTHALL GRANGE URBAN DEVELOPMENT, SHROPSHIRE**

The demolition of a former Power Station.

70 000 tonnes of concrete and 35 000 tonnes of metal from the Power Station have been recycled into cycleways and footpaths.



Information taken from the developer’s website



**UP TO
1000 HOMES**



**PRIMARY
SCHOOL**



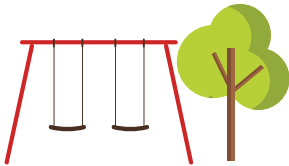
**LOCAL
SHOPPING
CENTRE**



**UP TO 200 000 SQ FT
EMPLOYMENT SPACE**



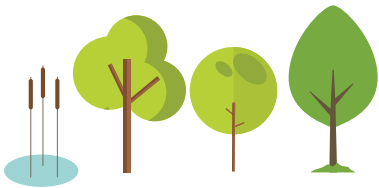
**SPORTS & PLAYING
FIELDS**



**AREAS
OF PLAY**

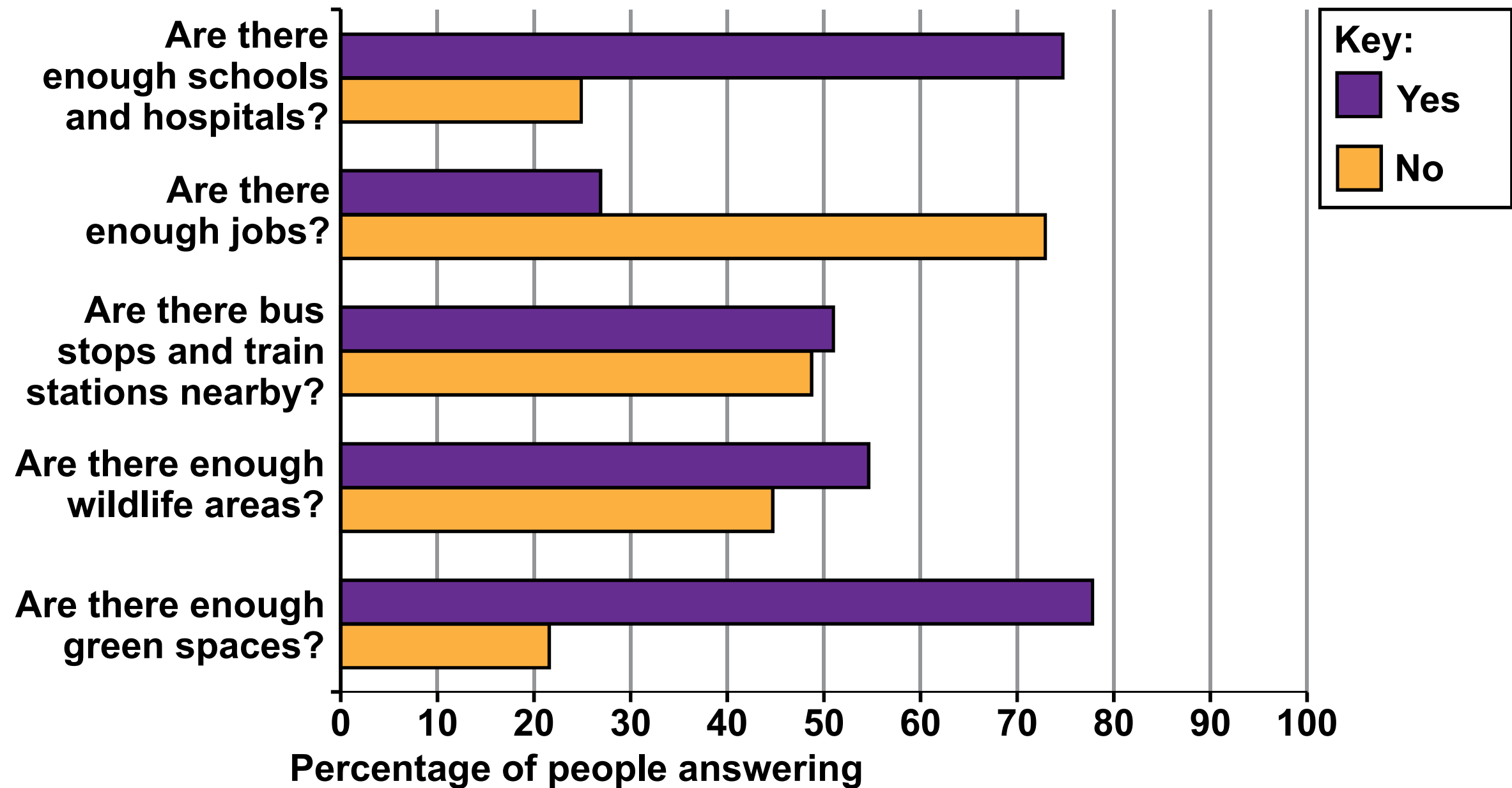


**LEISURE & COMMUNITY
FACILITIES**



**PARKLAND &
ENHANCED
GREEN SPACE**

GRAPH 2.3: QUESTIONNAIRE RESULTS FROM LOCAL RESIDENTS.



MAP 3.1: POTENTIAL OF SOME UK URBAN AREAS TO PRODUCE FOOD

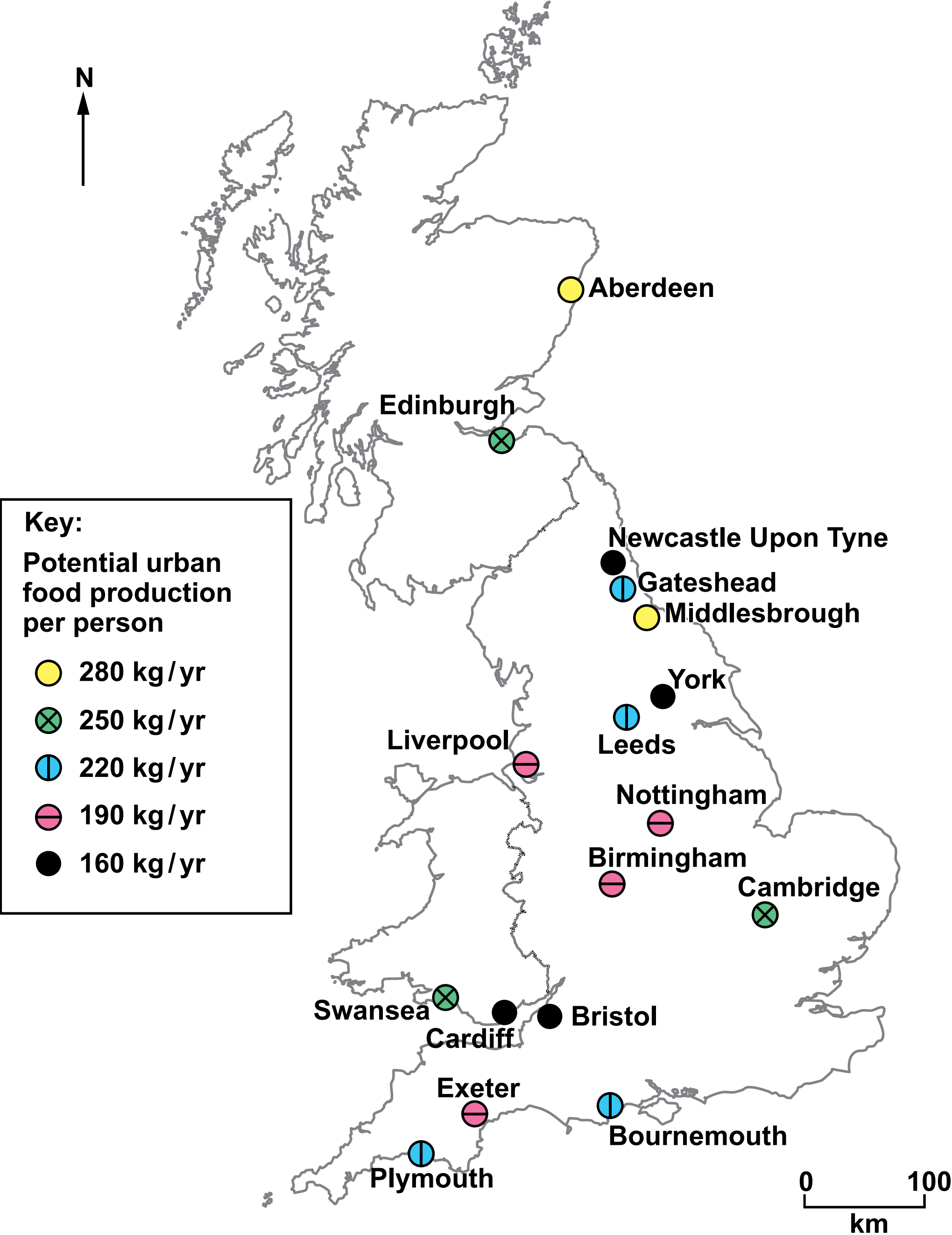


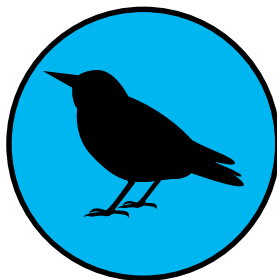
DIAGRAM 3.2: UK BIODIVERSITY LOSS

We are losing our URBAN wildlife

The UK is one of the most nature-depleted countries in the world with more than 1 in 7 of our native species facing extinction



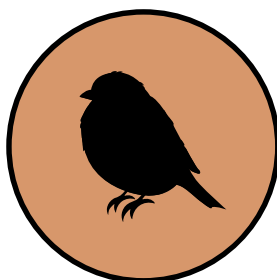
Hedgehog numbers have dropped from 35 million in the 1950s to 1 million in 2024.



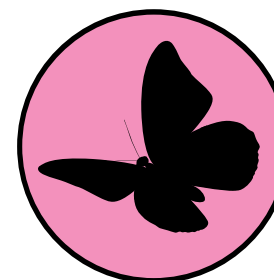
Since the 1970s, starling numbers have fallen by 65%.



Nearly 50% of wild bees have declined in recent years.



Since the 1970s, numbers of house sparrows in rural England have nearly halved while numbers in towns and cities have declined by 60%.



70% of butterfly species have declined in occurrence since 1976.

**GRAPH 3.3: TOTAL NUMBERS OF ELECTRIC CAR CHARGING POINTS IN ENGLAND,
INSTALLED BETWEEN JULY 2022 AND JULY 2023**

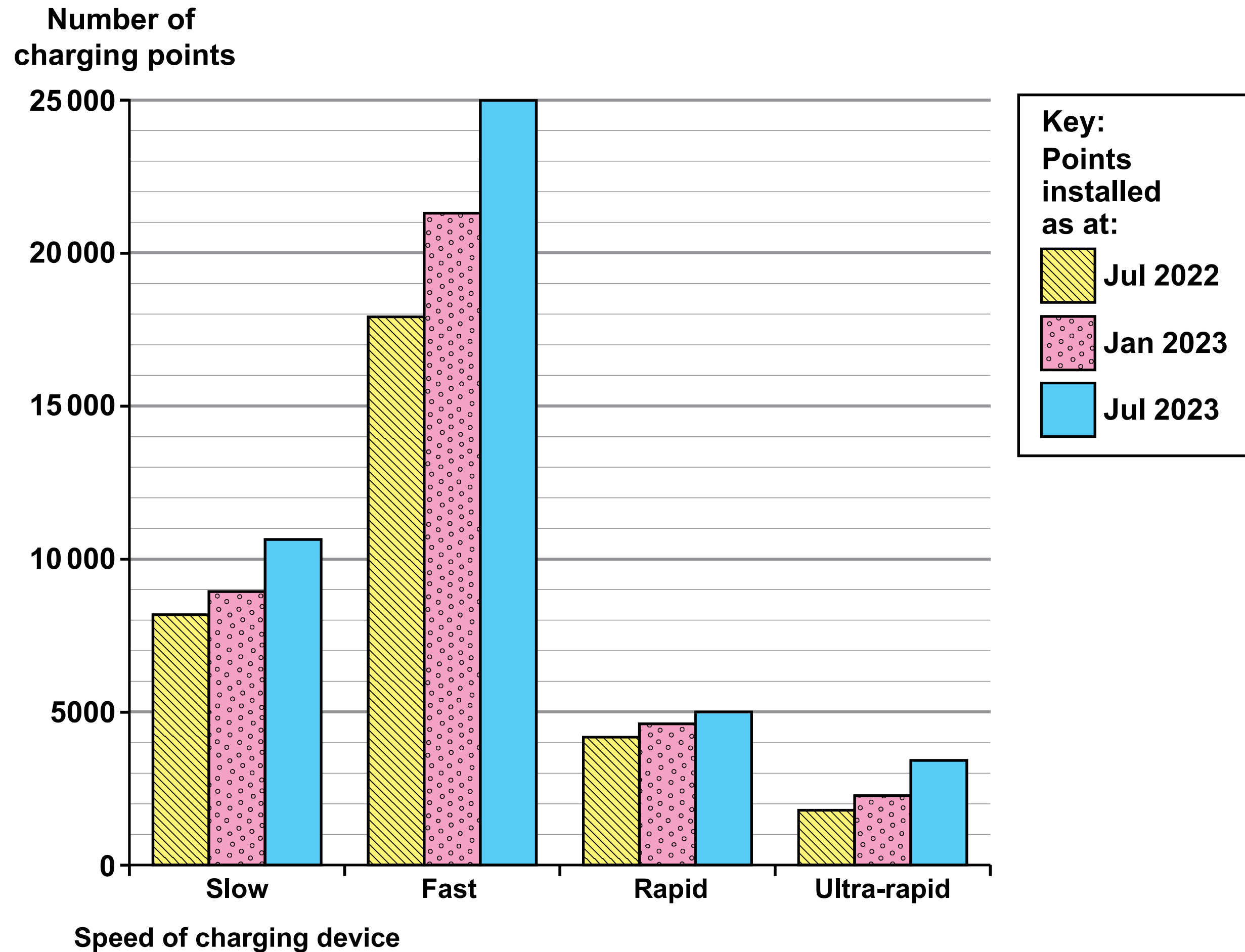


DIAGRAM 3.4: HOW VISITS TO GREEN SPACES IN THE UK CHANGED FROM 2009-2019



Landranger series (1:50 000 scale)

LANDRANGER MAP SYMBOLS



ROADS AND PATHS

Not necessarily rights of way

Service area

M1

Elevated

1 Junction number

Unfenced Dual carriageway

A 470

A 493

Road under construction

B 4518

A 855 B 885

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

Ferry V

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

a Station, (a) principal

Siding

Light rail system station

LC 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

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

4 8 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

ABBREVIATIONS

See website for full list

Br	Bridge	MS	Milestone
Cemy	Cemetery	Mus	Museum
CG	Cattle grid	P	Post office
CH	Clubhouse	P C	Public convenience (in rural areas)
Coll	College	P H	Public house
Fm	Farm	Sta	Station
Ho	House	Sch	School
Hospl	Hospital	T H	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

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