

GCSE (9–1) Geography A (Geographical Themes)

J383/03 Geographical Skills

Sample Resource Booklet

Version 1.2

Time allowed: 1 hour 30 minutes

INFORMATION

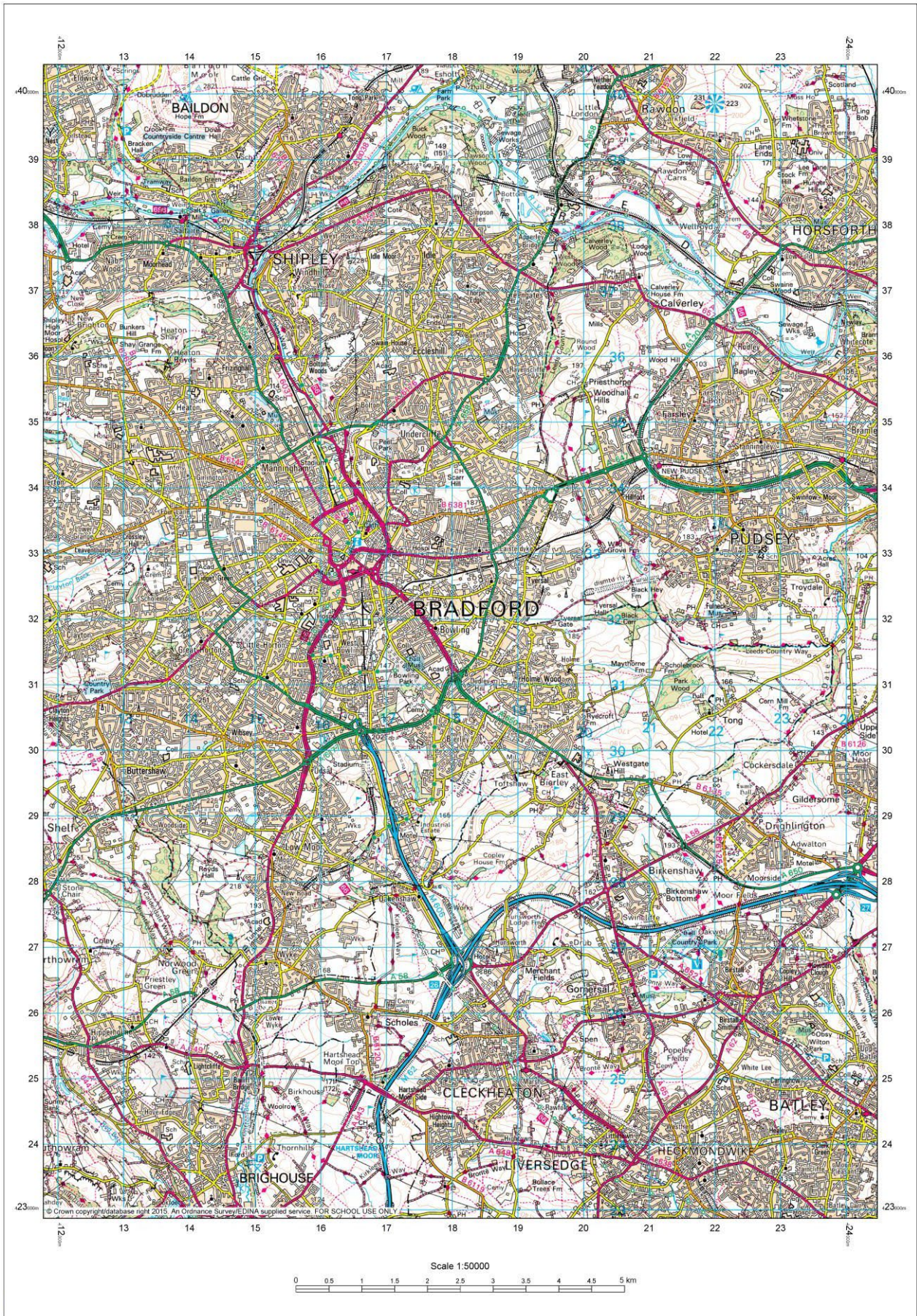
- This document has **12** pages.

INSTRUCTIONS

- Do not send this Resource Booklet for marking. Keep it in the centre or recycle it.

Fig. 1

OS map extract of Bradford



Communications

ROADS AND PATHS	VOIES DE COMMUNICATION	STRASSEN UND WEGE
Service area Junction number Dual carriageway A 470 A 499 Road under construction Nicht eingezäunt A 855 B 685 Bridge Other road, drive or track Path Gates Ferry P Ferry V	<p>Not necessarily rights of way</p> <p>Motorway (dual carriageway) Autoroute (chaussées séparées) avec aire de service et échangeur numéroté Autobahn (Zweibahnig) mit Servicestation und Anschlussstelle sowie Nummer der Anschlussstelle</p> <p>Primary Route Voies principales Fernstrasse</p> <p>Main road Route principale Hauptstrasse</p> <p>Road under construction Route en construction Strasse im Bau</p> <p>Secondary road Route secondaire Nebenstrasse</p> <p>Narrow road with passing places Route étroite avec voies de déposement Enge Strasse mit Ausweichtafeln</p> <p>Road generally more than 4m wide Route généralement de plus de 4m de largeur Strasse, im allg. über 4m breit</p> <p>Road generally less than 4m wide Route généralement de moins de 4m de largeur Strasse, im allg. unter 4m breit</p> <p>Other road, drive or track Autre route, allée ou sentier Sonderge Strasse, Zufahrt oder Feldweg</p> <p>Path Sentier Fußweg</p> <p>Gradient steeper than 20% (1 in 5), 14% to 20% (1 in 7 to 1 in 5) Pente Supérieure à 20% (1 pour 5), 14% à 20% (1 pour 7 à 1 pour 5) Steigung über 20%, 14% bis 20%</p> <p>Road tunnel Barrières Tunnel routier Stossentunnel</p> <p>Ferry (vehicle) Bac pour véhicules Personenfähre Autofähre</p>	<p>Primary routes form a network of recommended through routes which complement the motorway system</p>

General Information

LAND FEATURES	WATER FEATURES	HEIGHTS
Cutting embankment Electricity transmission line (types shown at standard spacing) Pipe line (arrow indicates direction of flow) Buildings Important building (selected) Bus or coach station Class Structure Harbour Current or former place of worship (with tower, spire, minaret or dome) Place of worship Triangulation pillar Mast Wind pump, wind turbine Windmill with or without sails Graticule intersection at 5' intervals	<p>Contour values in lakes are in metres</p> <p>Marsh or silt Towpath Lock Slopes Cliff High water mark Low water mark Canal (dry) Weir Normal tidal limit Sand Dunes Mud Lighthouse (in use) Beacon Footbridge Bridge</p>	<p>Contours are at 10 metres vertical interval</p> <p>Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first is the height of the natural ground at the location of the triangulation pillar, and the second (in brackets) is a separate point which is the highest actual summit.</p>

Tourist Information

TOURIST INFORMATION	RENSEIGNEMENTS TOURISTIQUES	TOURISTENINFORMATION
Viewpoint Point de vue Aussichtspunkt Visitor centre Centre pour visiteurs Besucherzentrum Walks / Trails Promenades Wanderwege Nature reserve Réserve naturelle Naturschutzgebiet Parking Parking Parkplatz Youth hostel Auberge de jeunesse Jugendherberge Golf course or links Terrain de golf Golfplatz Garden Jardin Garten	<p>Camp site/caravan site Terrain de camping/Terrain pour caravanes Campingplatz/Wohnwagenplatz</p> <p>Selected places of tourist interest Endroits d'un intérêt touristique particulier Ausgewählter Platz von touristischen Interesse</p> <p>Information centre, all year / seasonal Office de tourisme, ouvert toute l'année / en saison Informationsbüro, ganzjährig / saisonal</p> <p>Picnic site Emplacement de pique-nique Picknickplatz</p> <p>Park & Ride, all year / seasonal Parking et navette, ouvert toute l'année / en saison Park & Ride, ganzjährig / saisonal</p> <p>Telephone, public / roadside assistance Téléphone, public/ borne d'appel d'urgence Telefon, öffentlich / Notrufsäule</p> <p>Recreation / leisure / sports centre Centre de détente / loisirs / sports Erholungs- / Freizeit- / Sportzentrum</p> <p>World Heritage site/area Site du Patrimoine Mondial Welterbestätte</p>	

ABBREVIATIONS See our website for full list

CH	Clubhouse	CG	Cattle grid
PH	Public house	P	Post office
PC	Public convenience (in rural area)	SP	Milepost
TH	Town hall, Guildhall or equivalent	MS	Milestone

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

+	Site of antiquity	VILLA	Roman	▲	Battlefield (with date)
⊕	Visible earthwork	Crust.	Non-Roman		

Information provided by English Heritage for England and the Royal Commission on the Ancient and Historical Monuments for Scotland and Wales

ROCK FEATURES



Fig. 2

GIS (Geographical Information System) maps with information about Bradford

Bradford City Interactive

VistaGram

- Home
- About
- The Map
- Meet Me Here

- Shopping
- Restaurants
- Food & Drink
- Services
- Entertainment
- Hotel & Leisure
- Public information
- Places of interest

Site/Street Search. GO

Key

- Free City Bus Route Mon - Fri 7am - 7pm Sat 8am - 5.30pm
- Free City Bus Stops Every 10 minutes
- Buses Only
- Pedestrianised Areas
- Access Only
- HGV's Prohibited

The map has information and recommendations which you may find useful. Switch the spots on by clicking on the categories below..

- Shopping
- Restaurants
- Food & Drink
- Services
- Entertainment
- Hotel & Leisure
- Public Info
- Places of Interest
- Meet Me Here

Welcome to the Bradford Interactive map by VistaGram

'Click and Drag' anywhere on the map to navigate your way around the streets of Bradford. Find some hidden gems, and arrange to meet your friends along the way.

Switch on categories, rollover and click on the spots to discover Bradford

Reposition the map with the hand cursor

Bradford City Interactive

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Reposition the map with the hand cursor

Fig. 3

Choropleth map showing distribution of Pakistani ethnicity across UK regions

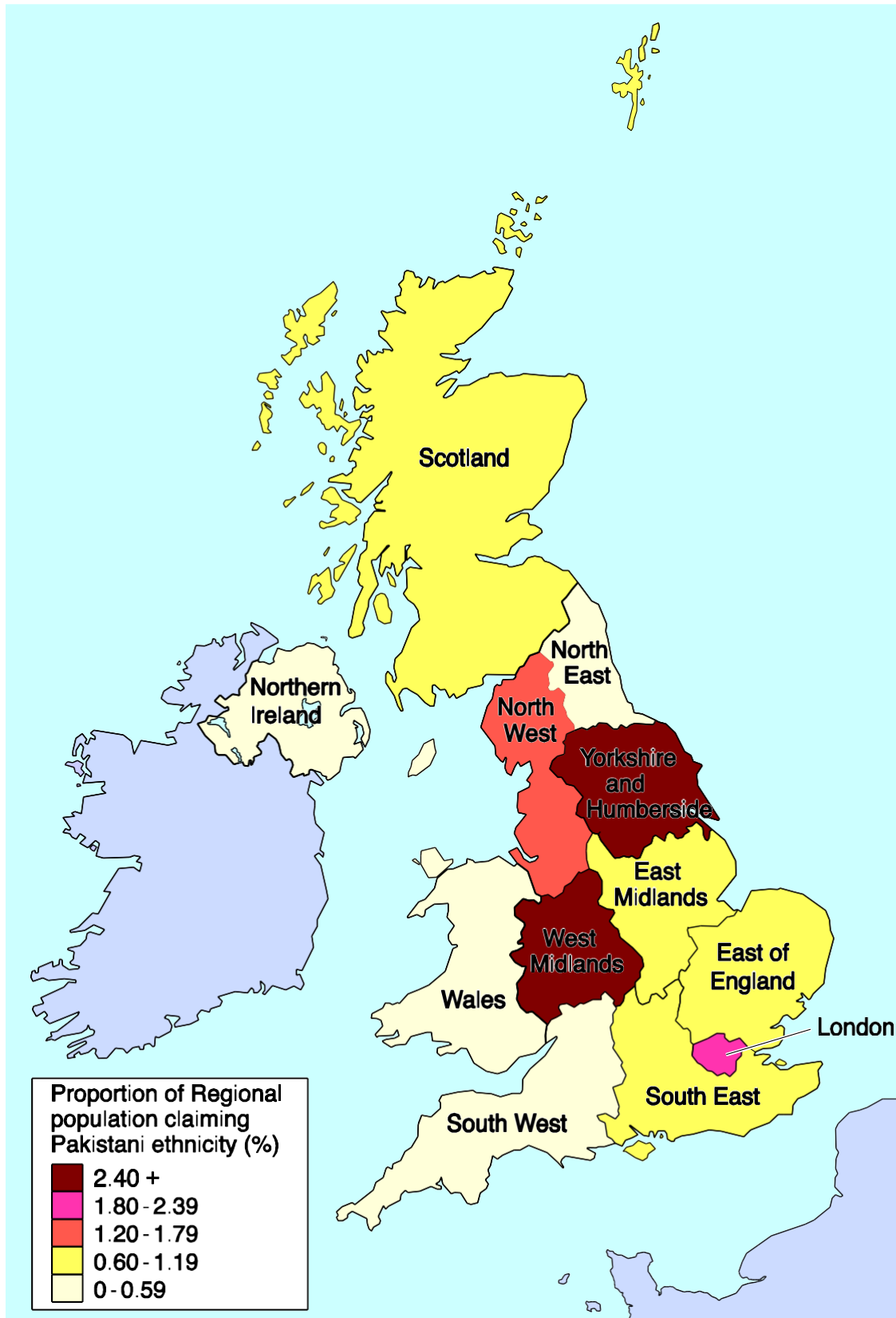


Fig. 4

Components of population change in Bradford between 2009 and 2010

	2009-10
Population at start of period	506,800
Births	8,700
Deaths	4,300
Natural Change (births minus deaths)	4,400
International migration inflows	6,500
International migration outflows	2,000
Internal migration inflows	13,800
Internal migration outflows	16,800
Net migration	1,500
Total population change	5,900
Population at end of period	512,700

Fig. 5

Population projections for Bradford

Projected Population: Bradford District 2010 - 2033

Source: Office for National Statistics

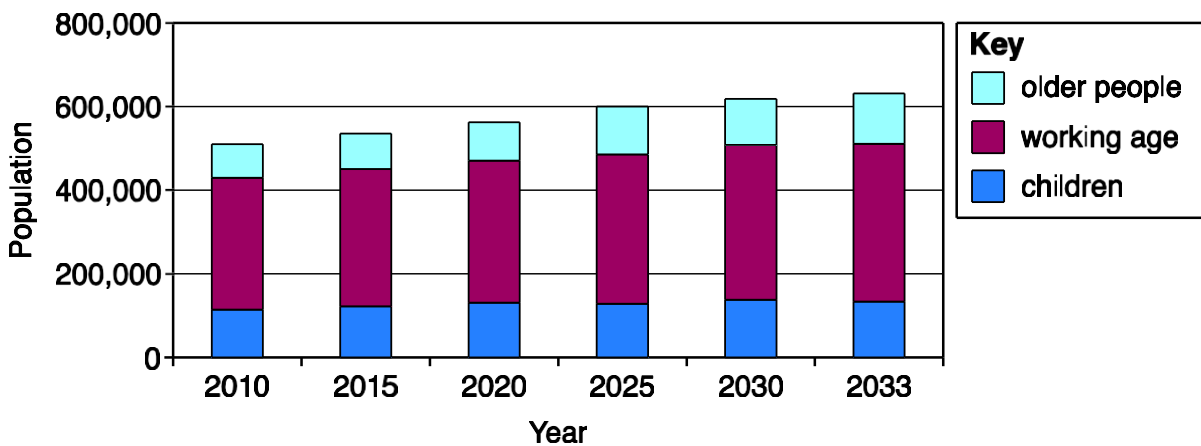


Fig. 6

Average household electricity consumption for selected UK cities (KWh)

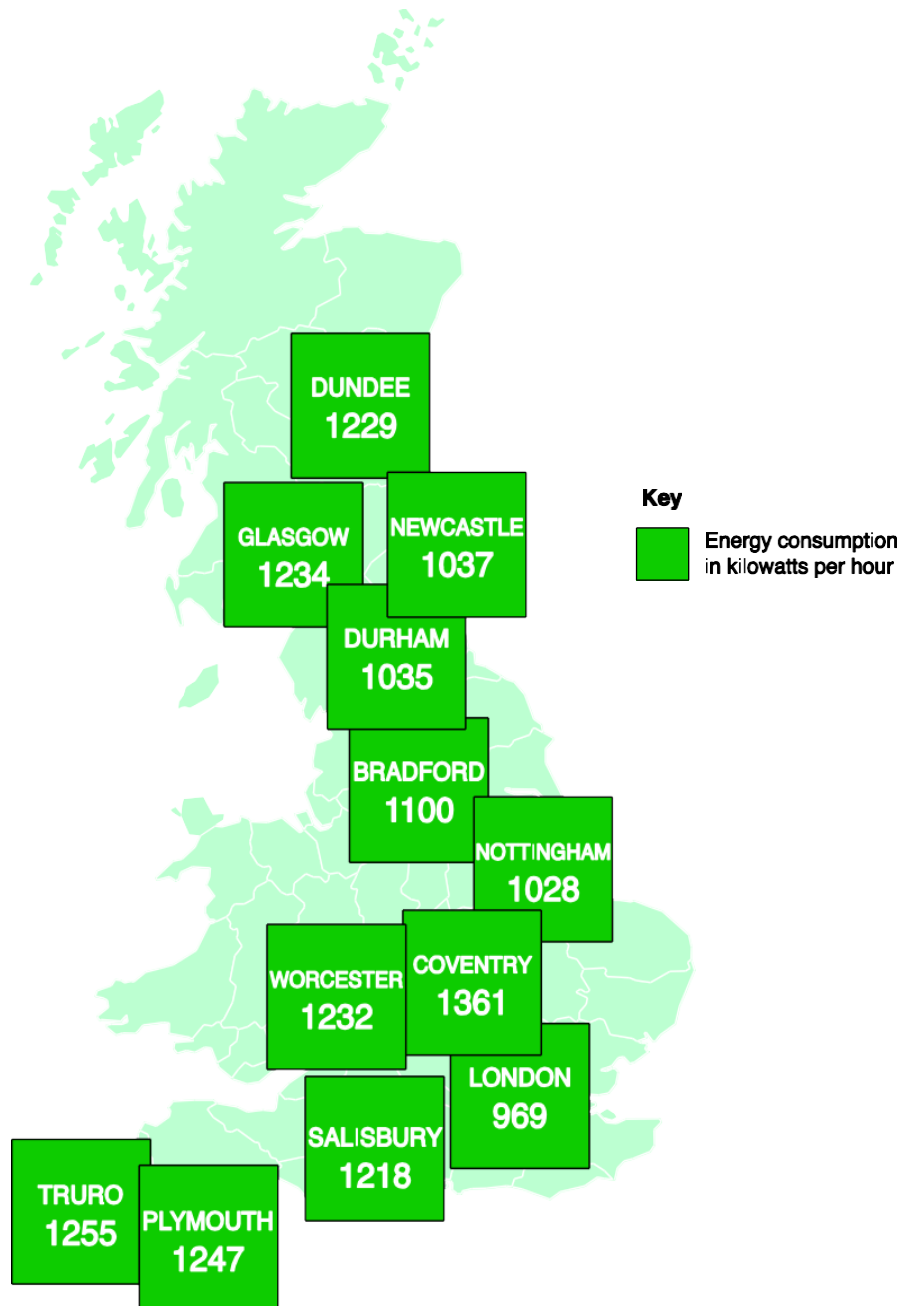


Fig. 7

Physical map of Nigeria

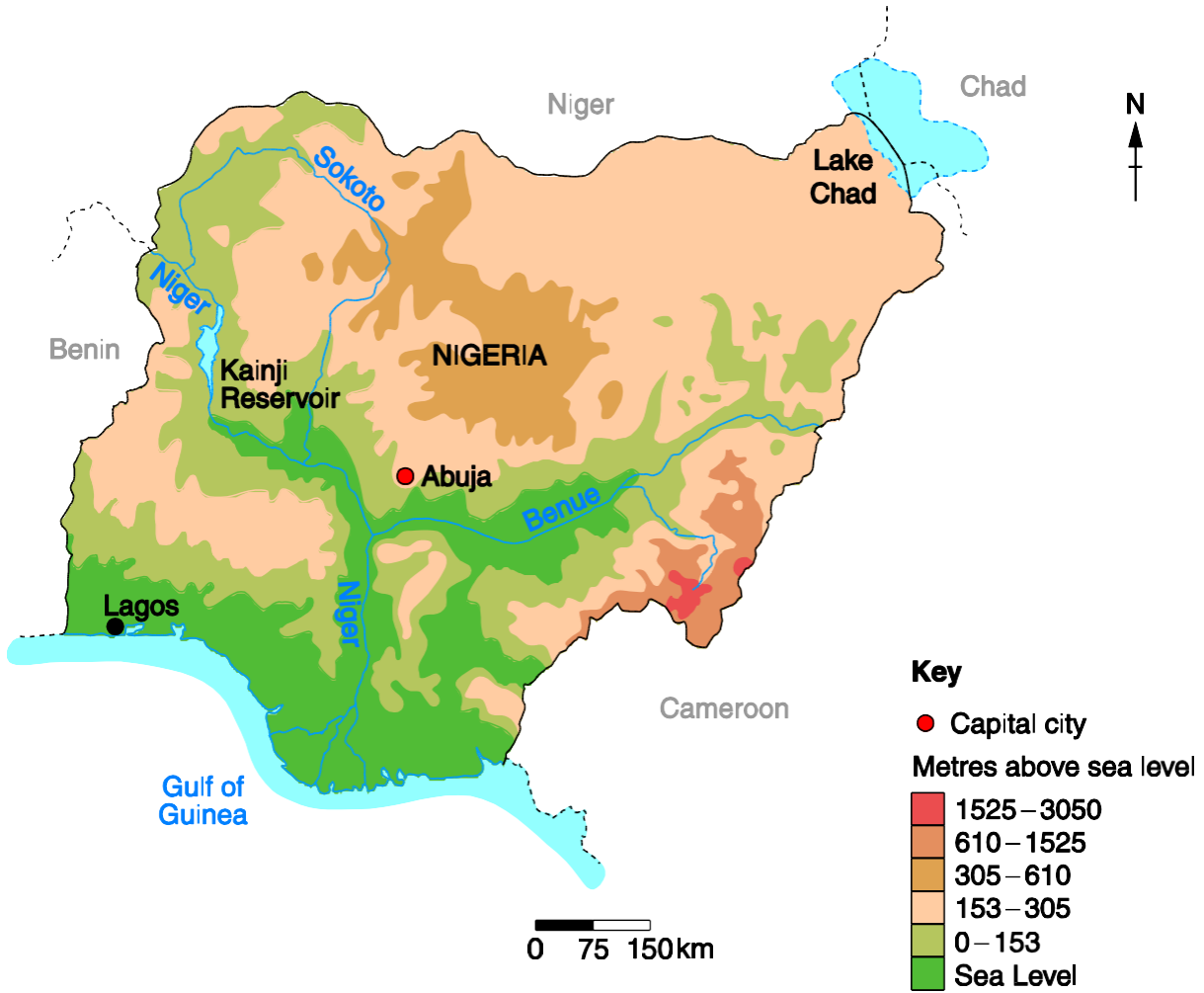


Fig. 8

Photographs of Lagos in Nigeria



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Summary of updates

Date	Version	Details
July 2021	1.1	Updated copyright acknowledgements.
January 2024	1.2	Updated as part of accessibility improvements.

Copyright Information:

Fig. 1: © Crown copyright (2015), Ordnance Survey (100043707)

Fig. 2: Bradford City Interactive map, www.bradford-interactive.org, accessed Mar 2015. © Silvermaze 2009

Fig. 4: Extract from Bradford City Council, "Bradford Power: 2020 and beyond Renewable Futures for Bradford Council" for Environment and Waste Management Overview and Scrutiny Committee, BRADFORD CITY COUNCIL. © Crown Copyright. Reproduced under the terms of the Open Government Licence v3.0.

Fig. 5: Extract from Bradford City Council, "Bradford Power: 2020 and beyond Renewable Futures for Bradford Council" for Environment and Waste Management Overview and Scrutiny Committee, BRADFORD CITY COUNCIL. © Crown Copyright. Reproduced under the terms of the Open Government Licence v3.0.

Fig. 8: Two photos of Lagos, Nigeria © peeterv / Getty Images. www.gettyimages.co.uk Reproduced with permission. Reuters News & Media Ltd

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GCSE (9–1) Geography A (Geographical Themes) J383/03 Geographical Skills Sample Question Paper

Date – Morning/Afternoon

Time allowed: 1 hour 30 minutes

You must have:

- the Resource Booklet (inside this document)

You may use:

- a ruler (cm/mm)
- a scientific or graphical calculator



First name

Last name

Centre
number

Candidate
number

INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Answer **all** the questions.

INFORMATION

- The total mark for this paper is **80**.
- The marks for each question are shown in brackets [].
- Quality of extended responses will be assessed in questions marked with an asterisk (*).
- Spelling, punctuation and grammar and the use of specialist terminology (SPaG) will be assessed in questions marked with a pencil).
- This document consists of **20** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A

Geographical Skills

1

(a) Look at **Fig. 1** in the Resource Booklet.

(i) In which general direction would you be travelling if you were approaching Bradford from the junction of the M62/M606 motorways?

- A** East
- B** North West
- C** South
- D** South East

Write the correct letter in the box.

[1]

(ii) What is the approximate length of the M606 motorway from its junction with the M62 (182 268), to its junction with the A6177 (166 303)?

- A** 4km
- B** 5km
- C** 8km
- D** 12km

Write the correct letter in the box.

[1]

Geographical Information Systems (GIS) can provide useful information about the geography of an area.

(b) Look at **Fig. 2** in the Resource Booklet.

(i) Identify **one** piece of evidence that this area contains Bradford's city centre.

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[1]

(ii) Explain why a GIS map, such as the one in **Fig. 2**, might be more useful for a visitor to Bradford than the OS map extract, such as the one in **Fig. 1**.

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[2]

Look at **Fig. 3** in the Resource Booklet.

- (c) Suggest **two** reasons why the information represented on this map might be misleading.

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[2]

Look at the table below, which shows types of households in Bradford and the number of households in each category.

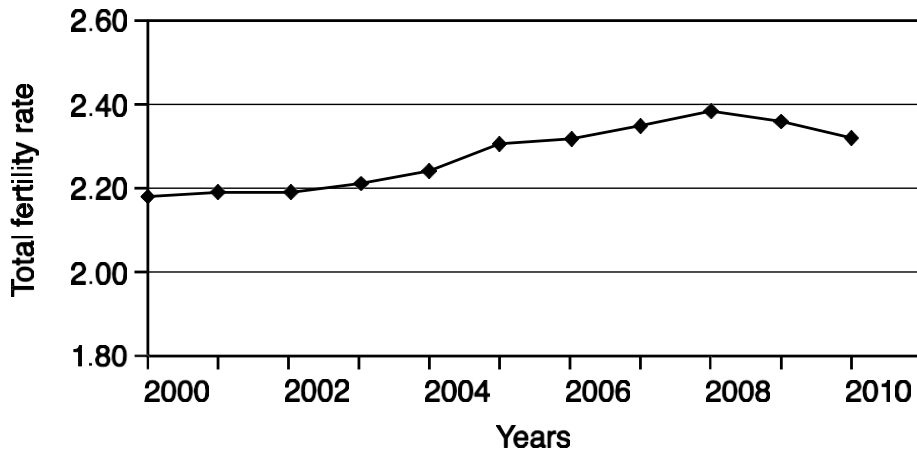
Types of Households	Number of Households
Owned	129 550
Social Rented	29 513
Private Rented	36 020
Living Rent Free	2 998
Total	198 081

- (d) Describe the pattern of the types of households in Bradford. Use data from the table in your answer.

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[4]

- 2 Look at the graph below, which shows how the total fertility rate in Bradford changed between 2000 and 2010.



- (a) Describe the trends in the total fertility rate over the period shown.

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[3]

Look at **Fig. 4** in the Resource Booklet.

- (b) Describe the contribution of migration to the total population change in Bradford between 2009 and 2010.

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[3]

Look at **Fig. 5** in the Resource Booklet.

- (c) Explain the challenges that could be caused by the changing population in Bradford.

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[4]

Look at **Fig. 6** in the Resource Booklet.

- (d) Changing populations can affect levels of energy supply and demand.
- (i) Calculate the difference between the average household energy consumption for Bradford and Plymouth.

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[1]

- (ii) Calculate the range of average electricity consumption for the cities shown in **Fig. 6**.

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[1]

- (iii) Suggest **one** improvement that could be made to the data presentation technique shown in **Fig. 6**.

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[1]

Look at the extract below.

Future renewable energy projects in Bradford’s District:

- **Wind turbines** could have a large role in the District’s energy supply. The Ovenden Moor ‘Repower’ scheme will probably generate 49,000MWh* yearly from nine new planned turbines.
- **Solar power** is already being used by the Council, with more solar projects planned. It is also a relatively simple technology to install across the Bradford council buildings, with a long lifetime and small costs to keep it working.
- **Biomass boilers** offer a more sustainable choice than gas for heating buildings. This is an option that the Council and the District’s 200 schools should like.
- **Hydro-electric power (HEP)** projects in Bradford’s District could create 14,000MWh of power every year.

Adapted Extract from ‘Bradford Power: 2020 and beyond’

*MWh = megawatts per hour

(iv) Assess how population increase in the city of Bradford could affect the demand for renewable energy projects, such as those outlined in the extract.

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[6]

3

(a) Look at **Fig. 7** in the Resource Booklet.

(i) Which region of Nigeria contains the most mountainous landscape?

- A North
- B North East
- C South West
- D West

Write the correct letter in the box.

[1]

(ii) What style of graph would most clearly show how the relief changes from Abuja to Lake Chad?

- A Cross-section
- B Horizontal bar
- C Radial
- D Scatter

Write the correct letter in the box.

[1]

(b) Lagos is the largest city in Africa, with an estimated 21 000 000 people living in the city, whilst the capital city of Nigeria, Abuja, has only 3 000 000 people living there.

What is the ratio 21 000 000:3 000 000 in its simplest form?

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[1]

Look at **Fig. 8** in the Resource Booklet.

(c) Identify **one** characteristic from the photographs that shows Lagos is a city in an LIDC. Give reasons for your answer.

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[3]

Look at the table below.

Scale of urban challenges in selected megacities

City Challenge	Hong Kong (China)	Tokyo (Japan)	Seoul (S.Korea)	Istanbul (Turkey)	London (UK)	New York (USA)	Lagos (Nigeria)
Informal Settlements	0	1	0	1	0	0	3
Traffic Management	2	1	1	1	1	0	3
Natural Hazards	0	1	1	3	1	1	1
Water Management	2	1	0	1	0	0	3
Electricity Supply	0	1	0	0	0	0	3
Waste Disposal	2	1	0	3	0	1	2
Air and Water pollution	2	1	0	1	2	1	3
Overall Score (magnitude of challenges)	8	7	2	10	4	3	18

0= few challenges
3= many challenges

(d) Outline the evidence that suggests Lagos has the most severe urban challenges of the cities shown.

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[3]

Section B

Geographical Fieldwork

4 Some Geography students have been conducting **human geography** fieldwork in Bradford city centre. They intend to investigate urban traffic issues.

The first question of the students' questionnaire is shown below.

How far have you travelled today?	1-2	2-4	4-6
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(a)

(i) Suggest **two** problems with the students' first question.

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[2]

(ii) Identify **one** other question you might want to add to the students' questionnaire investigating urban traffic issues.

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[1]

As part of the students' investigation into urban traffic issues they researched the number of car parking spaces in Bradford city centre. The data they collected is in the table below:

Name of Car Park	Number of parking spaces
Burnett Street	116
Crown Court	180
Pine Street	60
Radwell Drive	105
Rawson Road	33
Sharpe Street	98
Simes Street	77
St Thomas	132
Tyson Street	110
Westgate	404
Wigan Street	43

- (b) Calculate the **upper quartile value** of the dataset.

You must show your working out.

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[3]

Look at the tables and graphs below which display the results of their questionnaire asked to local residents.

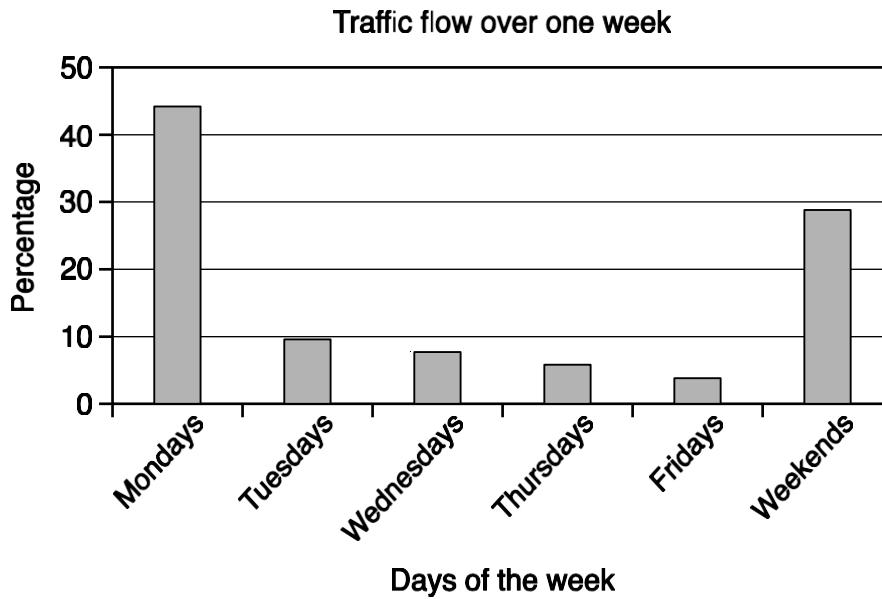
Table 1: Time of the day which congestion is more prominent

Time	Frequency	Percentage
6am – 8am	15	9.6
8am – 10am	72	46.2
10am – 12pm	3	1.9
12pm – 2pm	9	5.8
2pm – 4pm	3	1.9
4pm -6pm	54	34.6
Total	156	100

Table 2: Causes of traffic congestion in the study area

Causes of traffic congestion	Frequency	Percentage
Too narrow road	42	26.9
Vehicle breakdown	12	7.7
Loading and off-loading of goods and passengers on the road	54	34.6
Indiscriminate Parking	12	7.7
On-street trading	12	7.7
Lack of a bus terminal	20	12.8
Other	4	2.6
Total	156	100

Graph 1: Days of the week in which congestion is most prominent



5 You will have taken part in fieldwork in a **physical geography** environment. Examples might include a river or a coastal area.

State your fieldwork question for investigation:

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Location of study area:

(a) Explain the suitability of **one** key question or hypothesis that you chose to help answer your fieldwork question for investigation.

Key question/hypothesis:

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[4]

(b) Evaluate to what extent **one** method you used to collect your primary fieldwork data was a success.

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[6]

Summary of updates

Date	Version	Details
July 2021	1.1	Updated copyright acknowledgements.
January 2024	1.2	Updated as part of accessibility improvements.

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