Write your name here

Surname	Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Centre Number | | | | | |

Candidate Number | | | | |

Geography A

Paper 3: Geographical Investigations: Fieldwork and UK Challenges

Monday 11 June 2018 – Afternoon
Time: 1 hour 30 minutes

Paper Reference
1GA0/03

You must have:
Resource Booklet (enclosed)
Calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section A answer **either** Question 1 **or** Question 2.
- In Section B answer **either** Question 3 **or** Question 4.
- In Section C answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Where asked you must **show all your working out** with **your answer clearly identified** at the **end of your solution**.

Information

- The total mark for this paper is 64.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- The marks available for spelling, punctuation, grammar and use of specialist terminology are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶

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SECTION A

Geographical Investigations – Physical Environments

Answer EITHER Question 1 OR Question 2 in this section.
Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Question 1: Investigating Physical Environments (rivers)

If you answer Question 1 put a cross in the box ☒ .

1 (a) You have studied a river as part of your own fieldwork.

(i) Explain **one** limitation of the quantitative fieldwork method you used when investigating river discharge.

(2)

Named quantitative fieldwork method .....

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(ii) Explain **one** way you could have improved the quantitative fieldwork method.

(2)

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(b) Explain **one** way the qualitative fieldwork method you used supported your understanding of river landforms.

(3)

Named qualitative fieldwork method .....

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(c) Explain **one** way river processes might affect people living in the catchment area of the river you studied.

(3)

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(d) Study Figure 1a and Figure 1b in the Resource Booklet.

Using both Figure 1a and Figure 1b, assess the possible conclusions that might be drawn from this river investigation.

(8)

(Total for Question 1 = 18 marks)

Do not answer Question 2 if you have answered Question 1.

Question 2: Investigating Physical Environments (coasts)

If you answer Question 2 put a cross in the box ☒ .

2 (a) You have studied a coast as part of your own fieldwork.

(i) Explain **one** limitation of the quantitative fieldwork method you used when investigating beach morphology.

(2)

Named quantitative fieldwork method .....

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(ii) Explain **one** way you could have improved the quantitative fieldwork method.

(2)

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(b) Explain **one** way the qualitative fieldwork method you used supported your understanding of coastal landforms.

(3)

Named qualitative fieldwork method .....

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(c) Explain **one** way coastal processes might affect people living close to the coastline you studied.

(3)

(d) Study Figure 2a and Figure 2b in the Resource Booklet.

Using both Figure 2a and Figure 2b, assess the possible conclusions that might be drawn from this coastal investigation.

(8)

(Total for Question 2 = 18 marks)

TOTAL FOR SECTION A = 18 MARKS

SECTION B

Geographical Investigations – Human Landscapes

Answer EITHER Question 3 OR Question 4 in this section.
Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Question 3: Investigating Human Landscapes (central/inner urban area)

If you answer Question 3 put a cross in the box ☒ .

3 (a) Identify which **one** of the following is a type of qualitative data.

(1)

- ☒ **A** traffic count
- ☒ **B** newspaper article
- ☒ **C** pedestrian count
- ☒ **D** population census

(b) Study Figure 3a in the Resource Booklet.

A student was collecting views of residents about the quality of the environment in a central urban area.

(i) Explain **one** advantage and **one** disadvantage of the technique shown in Figure 3a.

(4)

Advantage

Disadvantage

(ii) The student used a random sampling strategy to collect the data.

Explain **one** disadvantage of using this sampling strategy.

(3)

(c) Study Figure 3b below. It shows a radial graph for an Environmental Quality Survey (EQS) completed at an urban location.

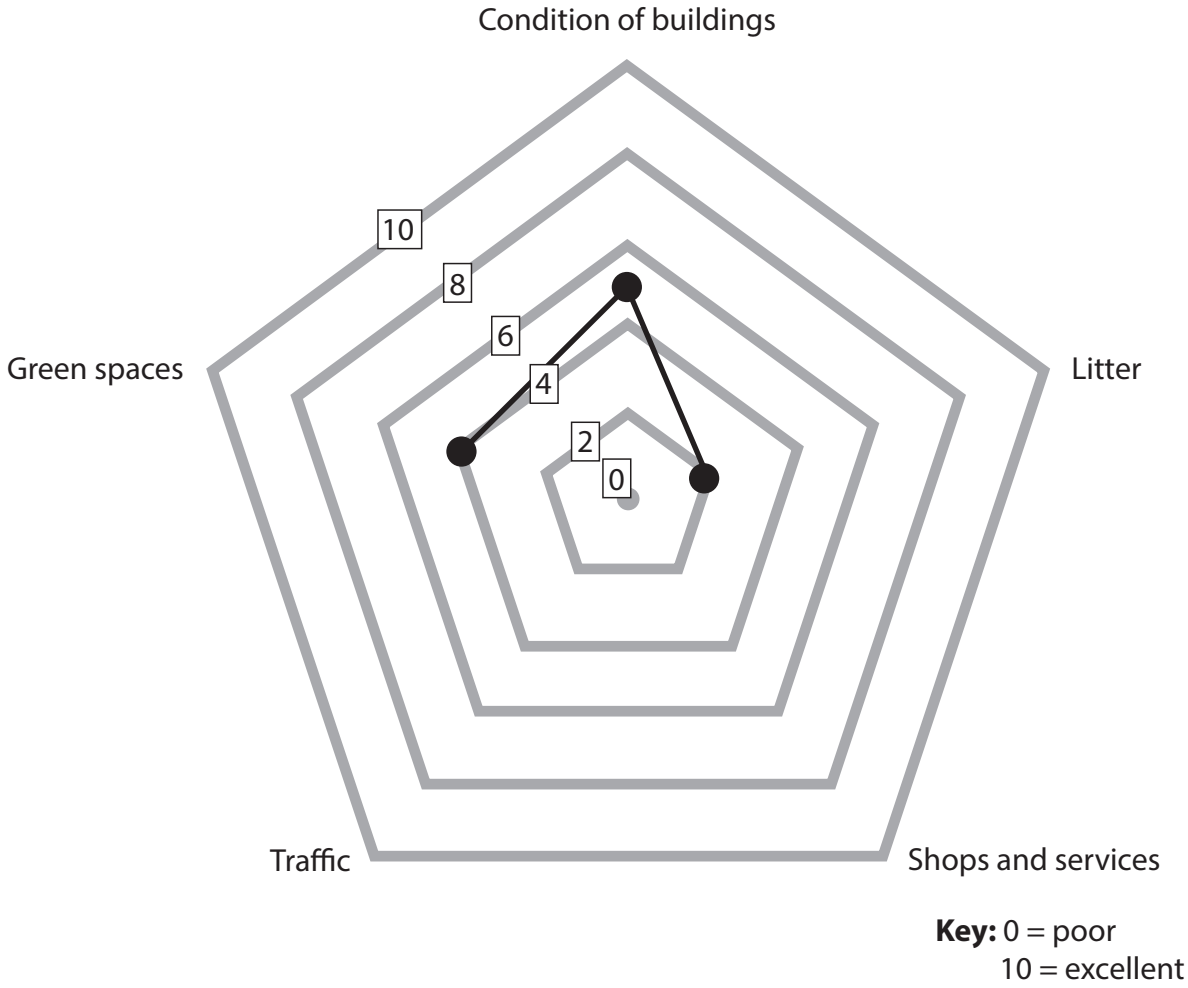

Figure 3b

Plot the data given in the table below by completing Figure 3b.

(2)

EQS Category	Score
Shops and services	8
Traffic	2

(d) You have studied an urban area as part of your fieldwork.

Evaluate the different techniques used to present your fieldwork data.

(8)

(Total for Question 3 = 18 marks)

Do not answer Question 4 if you have answered Question 3.

Question 4: Investigating Human Landscapes (rural settlements)

If you answer Question 4 put a cross in the box ☒ .

4 (a) Identify which **one** of the following is a type of qualitative data.

(1)

☒ **A** traffic count

☒ **B** newspaper article

☒ **C** pedestrian count

☒ **D** population census

(b) Study Figure 4a in the Resource Booklet.

A student was collecting views of residents about the quality of the environment in a rural area.

(i) Explain **one** advantage and **one** disadvantage of the technique shown in Figure 4a.

(4)

Advantage

Disadvantage

(ii) The student used a random sampling strategy to collect the data.

Explain **one** disadvantage of using this sampling strategy.

(3)

(c) Study Figure 4b below. It shows a radial graph for an Environmental Quality Survey (EQS) completed at a rural location.

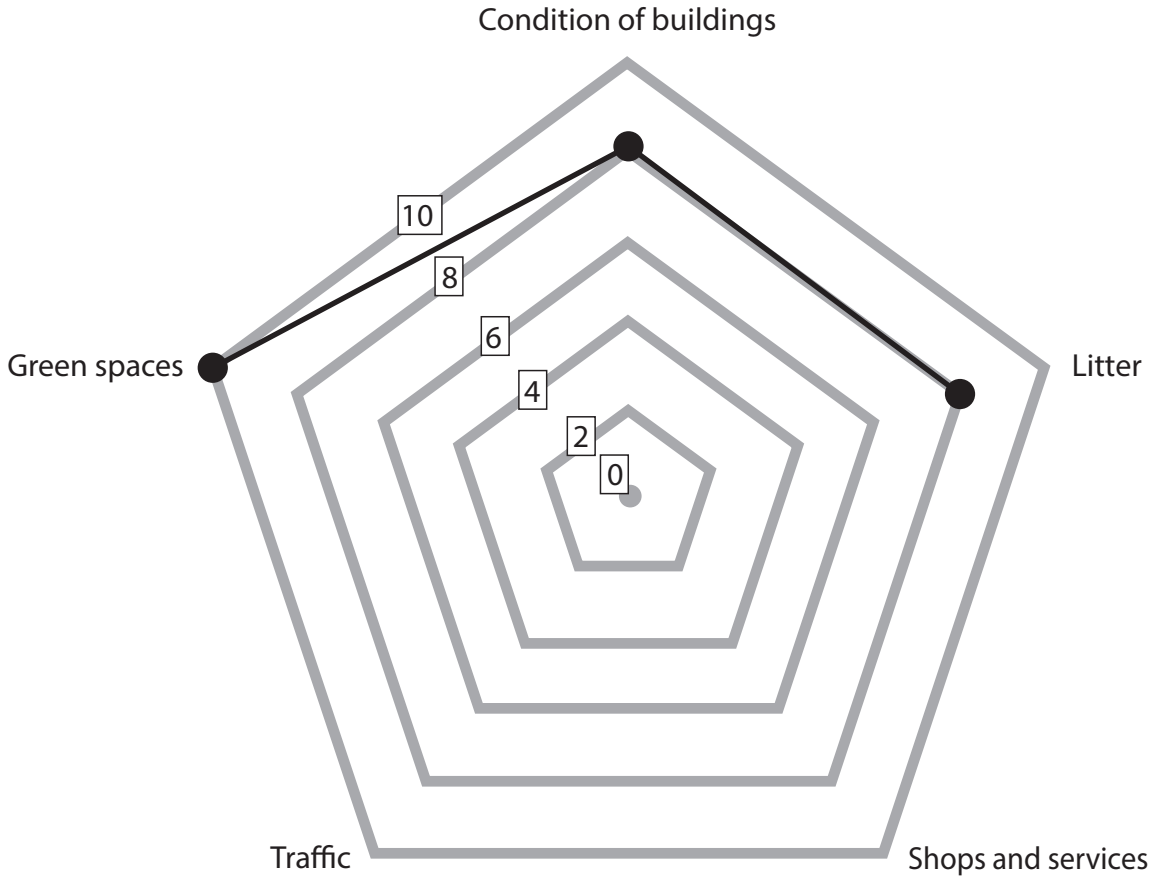

Figure 4b

Plot the data given in the table below by completing the Figure 4b.

(2)

EQS Category	Score
Shops and services	4
Traffic	8

(d) You have studied a rural area as part of your fieldwork.

Evaluate the different techniques used to present your fieldwork data.

(8)

(Total for Question 4 = 18 marks)

TOTAL FOR SECTION B = 18 MARKS

SECTION C

UK Challenges

Answer ALL questions in this section.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Spelling, punctuation, grammar and specialist terminology will be assessed in Question 5(f).

5 (a) Study Figure 5a in the Resource Booklet.

Identify the decrease in annual CO_2 emissions per capita from 1990 to 2030.

(1)

- ☒ **A** 0.3 tonnes
- ☒ **B** 0.5 tonnes
- ☒ **C** 0.7 tonnes
- ☒ **D** 0.9 tonnes

(b) State **two** reasons for the use of sustainable transport schemes in the UK.

(2)

1 .....

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2 .....

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(c) (i) Study Figure 5b in the Resource Booklet.

Identify the projected population of the United Kingdom in 2025.

(1)

- ☒ **A** 50 million
- ☒ **B** 62 million
- ☒ **C** 69 million
- ☒ **D** 74 million

(ii) Explain **one** reason why an increase in the UK population could lead to pressure on resource consumption.

(3)

(d) Santander supports the hiring of bikes, a sustainable transport scheme in London.

Study Figure 5c below.

Total membership June 2015	178 893
Total membership March 2016	208 957

Figure 5c

Calculate the increase in the total membership for the Santander bike scheme between June 2015 and March 2016.

(1)

(e) Explain **two** advantages of building on brownfield sites.

(4)

1

2

In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar, and use of specialist terminology.

(f) Use the information from the Resource Booklet (Figures 5d to 5f) as well as knowledge and understanding from the rest of your geography course.

'The use of sustainable transport schemes will significantly improve the environment'.

Discuss this view.

(12)

(Total for spelling, punctuation, grammar and use of specialist terminology = 4 marks)
(Total for Question 5 = 28 marks)

TOTAL FOR SECTION C = 28 MARKS
TOTAL FOR PAPER = 64 MARKS

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Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Geography A

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Resource Booklet

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Do not return the Resource Booklet with the question paper.

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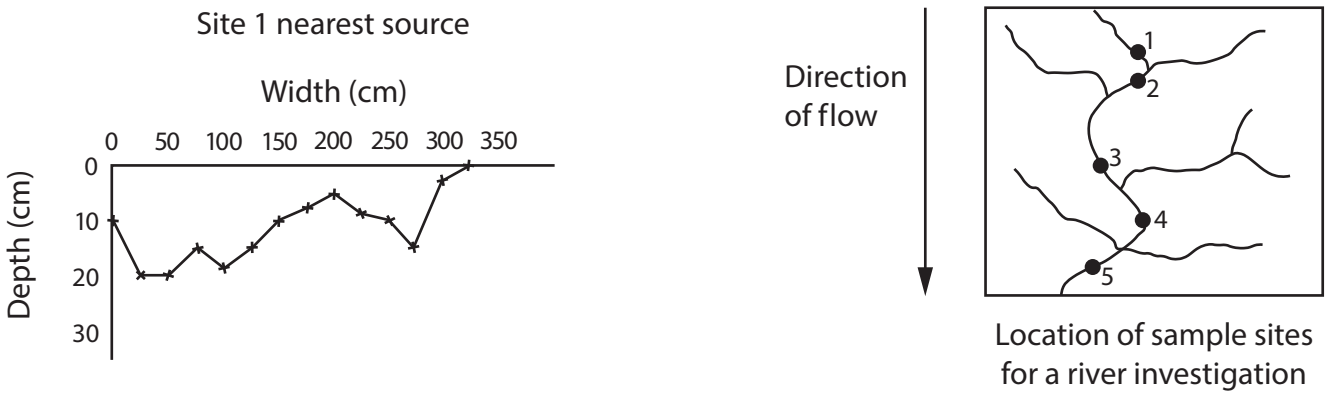
SECTION A



Location of sample sites for a river investigation

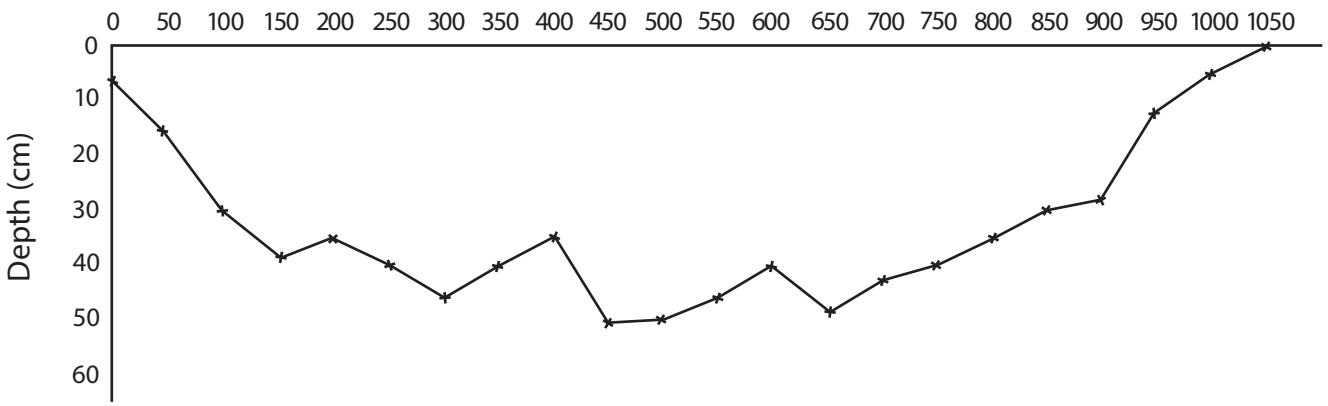
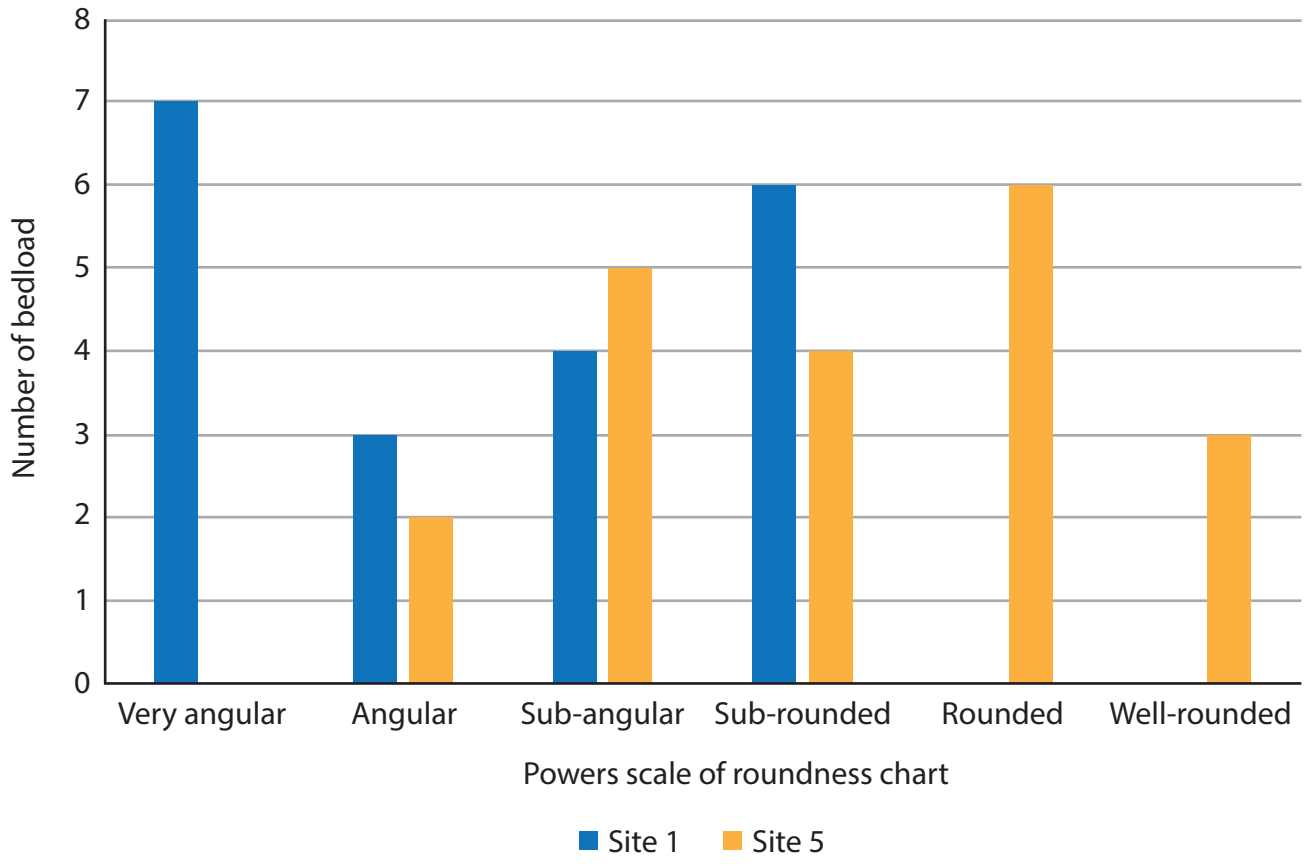


Figure 1a

Plotted cross-sections of river channel at Site 1 and Site 5



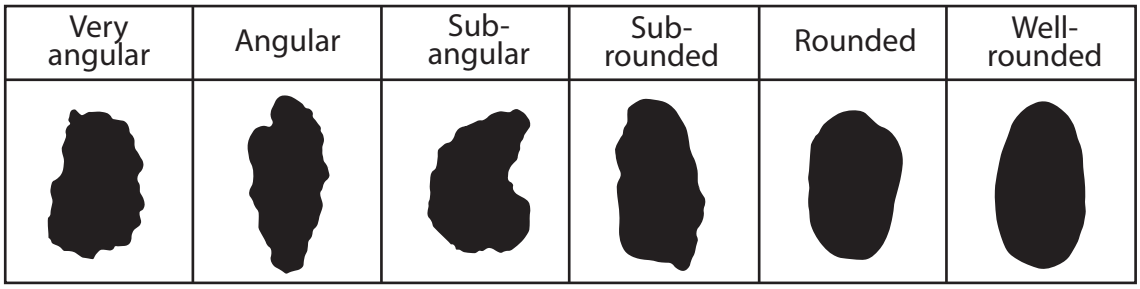


Figure 1b

Powers scale of roundness chart for bedload sample at Site1 and Site 5

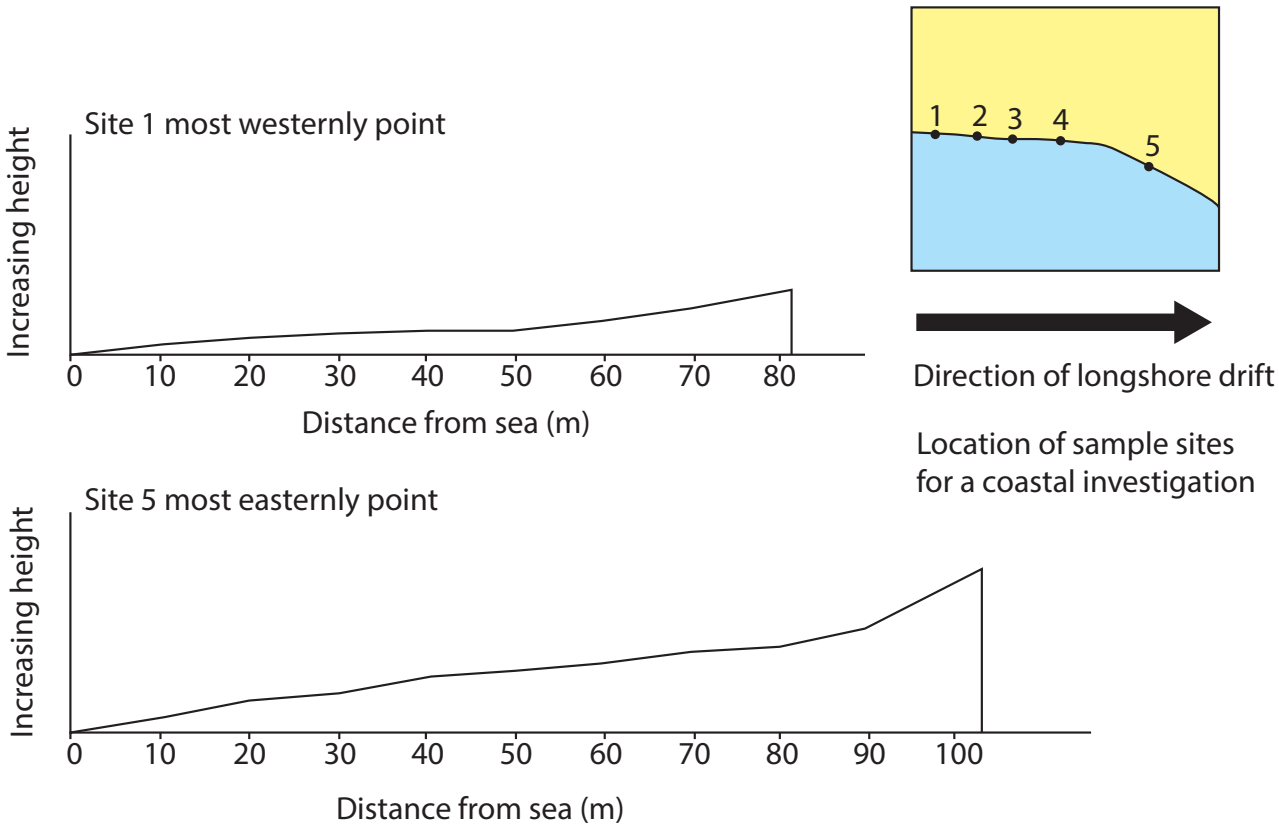
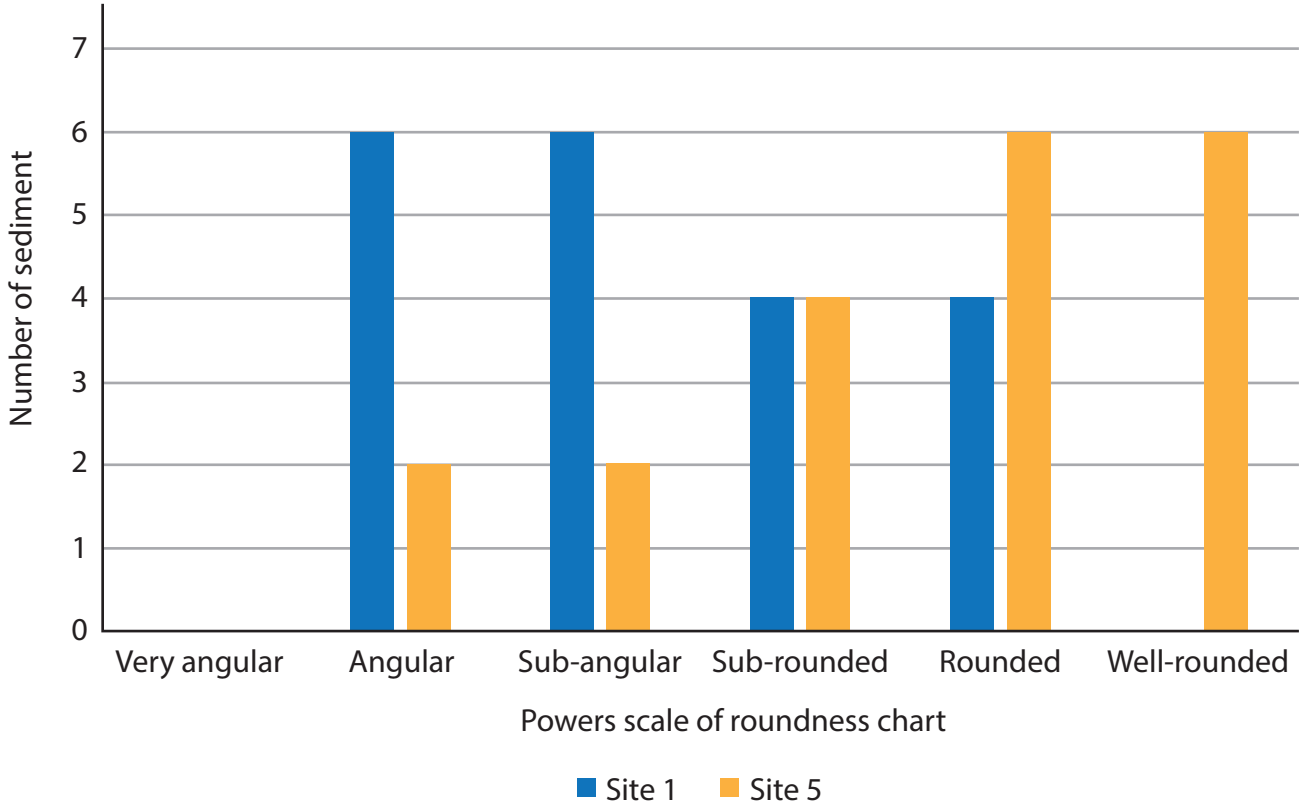


Figure 2a

Plotted cross-sections of beach profile at Site 1 and Site 5



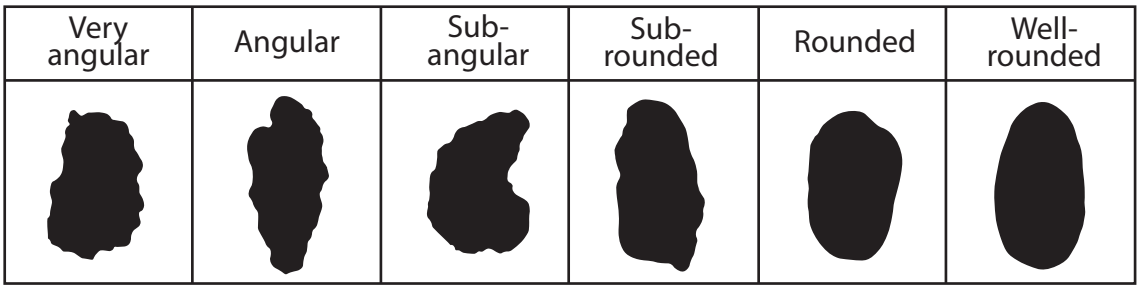


Figure 2b

Powers scale of roundness chart for sediment sample at Site 1 and Site 5

SECTION B

Figure 3a

Student conducting a questionnaire about environmental quality for an urban study

Figure 4a

Student conducting a questionnaire about environmental quality for a rural study

SECTION C

Year	CO_2 per capita (tonnes)
1990	1.4
2010	1.1
2015	1.08
2025	0.95
2030	0.9

Figure 5a

Past and projected CO_2 emissions from transport in Greater London (2010)

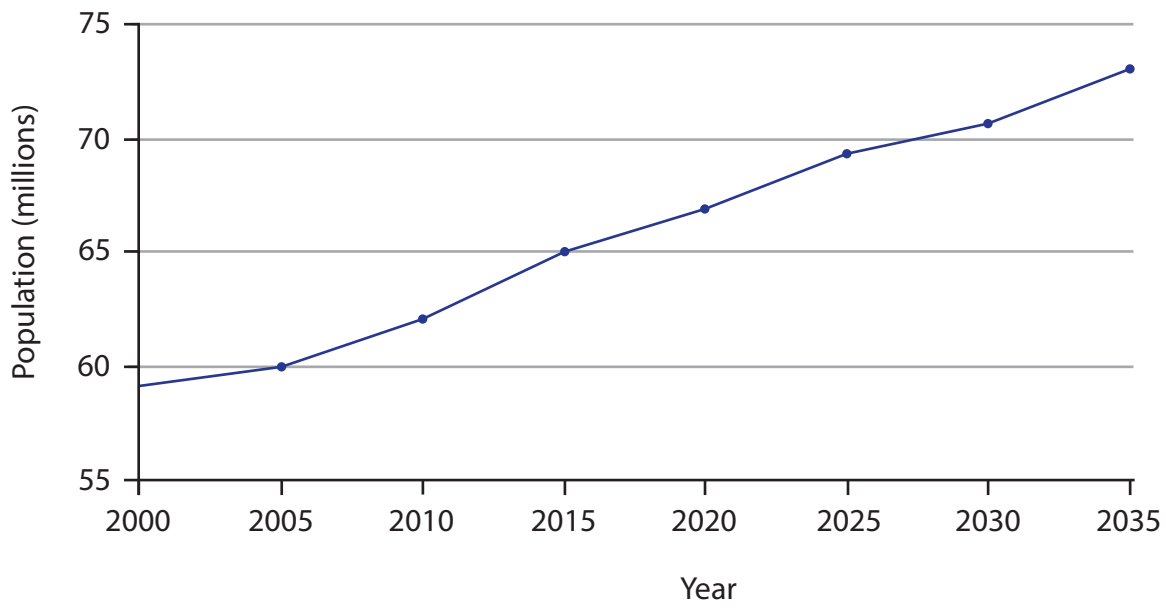


Figure 5b

Population change for the UK from 2000 to 2035

The new Routemasters (shown below) use diesel-electric hybrid technology which will reduce annual carbon dioxide (CO_2) emissions by around 20 600 tonnes.

Average fuel consumption of the new Routemaster hybrid buses is almost 50 per cent lower than other buses.

All drivers complete the smarter driving course, encouraging more efficient driving reducing carbon emissions.

The Transport for London bus network has approximately 2.3 billion passenger journeys every year.

Figure 5d

Transport for London's new Routemaster buses

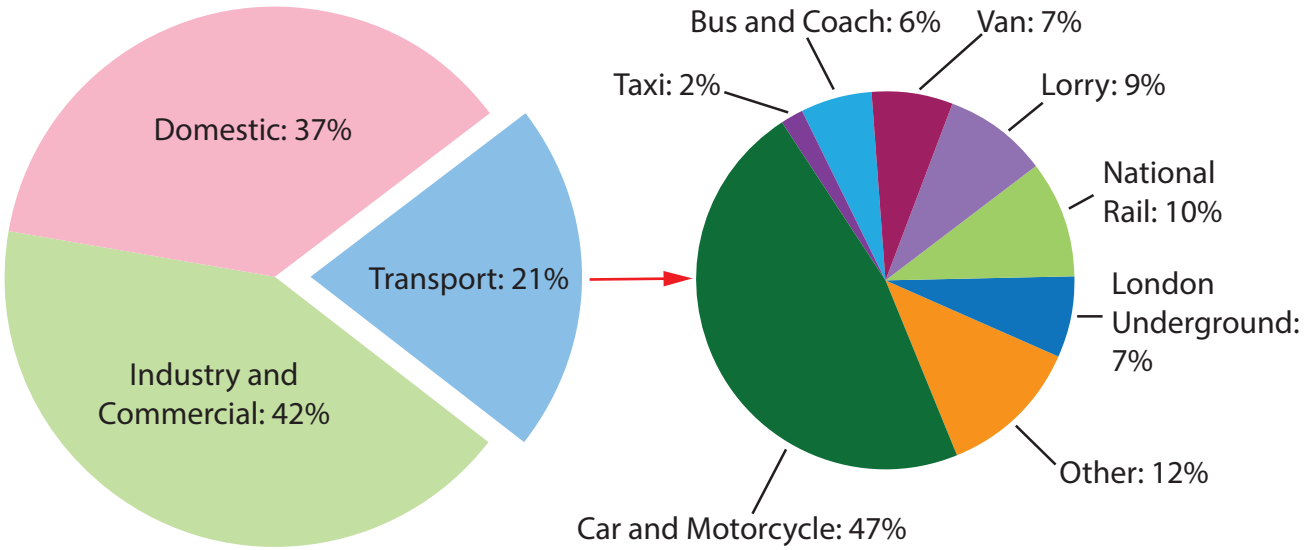


Figure 5e

CO_2 emissions in Greater London (2010)

The new tram system in Nottingham has contributed to boosting the city's image and encouraged regeneration. The trams have significantly reduced traffic congestion and air pollution.

Air pollution has an impact on the growth of vegetation. Reducing air pollution will help to protect natural habitats and increase biodiversity in the UK.

Air pollution in cities can have a negative impact on people's health, especially children and the elderly. Continued exposure to pollutants in the air can lead to long term chest problems.

Promoting sustainability in the UK

Park and ride systems like the one in Cambridge contribute towards the reduction of vehicles in the city centre. This reduces the level of CO_2 emissions within the city centre and improves air quality for visitors.

The growth in the use of more sustainable transport and other green technologies is contributing towards increasing jobs now and future employment opportunities.

In Manchester, on the Godley Reservoir, a floating solar panel system has been constructed, producing clean, renewable energy with no carbon emissions.

Many businesses are adopting sustainable practices in their operations. For example, Costa have built an 'Eco Pod' zero energy restaurant in Telford.

Figure 5f

Strategies used to promote sustainability in the UK

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Figure 1b & 2b - © The Natural History Museum (London)

Figure 3a - © Michael Chiles

Figure 4a - © Michael Chiles

Figure 5d - © TERRY BLACKMAN / Alamy Stock Photo

Figure 5f - Source from https://www.whitbread.co.uk/media/news-press releases/costa-ecopod-telford.html

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