

GCSE (9-1)

Examiners' report

GEOGRAPHY A

(GEOGRAPHICAL THEMES)

J383

For first teaching in 2016

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Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

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Paper 3 series overview

This paper is the last in the series of three that candidates will have taken, and is focused on their geographical and fieldwork skills. Candidates are supplied with a resource booklet in the examination and have to use it to complete a series of questions. They are assessed on their own understanding (AO2) and are required to apply their knowledge and understanding (AO2) to answer the questions throughout the paper. As this is a geographical skills examination candidates are assessed on a range of skills (AO3) including mathematical and statistical skills in geography.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
<ul style="list-style-type: none">• attempted all the questions• showed their working• used the figures to support their responses• drew on their own fieldwork experiences.	<ul style="list-style-type: none">• did not attempt all questions• did not show their working• did not use the figures and resources• did not have a clear understanding of their own fieldwork.

Section A overview

This section contains three questions which require in depth use of the figures. Candidates need to be clear about when they are required to use specific information from the resource, or when they should refer to it in more general terms. The shorter questions are complemented by longer, level-based questions which enabled candidates to develop their responses. Candidates should use the space provided in the answer booklet to the fullest extent and use this as a guide to how much they should be writing.

Question 1 (a) (i)

Geographical Skills

1 (a) Look at **Fig. 1a** in the Resource Booklet, which shows a map of the city of Nottingham.

- (i) In which **direction** would you be travelling if you were driving from the University of Nottingham to the city centre?

..... [1]

Most candidates were able to ascertain that Northeast was the correct response. NE is acceptable. There is no need to go into three figures, e.g. East Northeast.

Question 1 (a) (ii)

- (ii) What type of map is shown in **Fig. 1a**?

- A Base Map
- B Choropleth Map
- C Desire-line Map
- D Isoline Map

Write the correct letter in the box.

[1]

The correct response was A: Base Map.

Misconception



Some candidates did not get this correct which implies that they were unable to distinguish between the type of map. Many chose Choropleth Map as their response. Understanding the range of maps they could use is a key skill for candidates to practice.

Question 1 (b) (ii)

(ii) Suggest **two** reasons for the difference in household income in the different areas of Nottingham, as shown in **Fig. 1b**.

1

.....

2

.....

[2]

Candidates who made the connection of household income to jobs, whether that is availability or level of income or education level needed, were given marks for this question. Where candidates repeated the question stem and said that the household income was different, they were not given any marks.

Question 1 (c) (ii)

(ii) Using evidence from **Fig. 2**, suggest **one** way that transport in the city is being made more **sustainable** and **explain** why.

.....

.....

.....

..... [2]

Candidates generally did well on this question as they were able to identify sustainable transport use from Fig. 2 and then were able to explain why it is sustainable. The most popular responses were related to electric buses and releasing fewer emissions.

Question 1 (d) (i)

(d) Look at **Fig. 3** in the Resource Booklet, which shows UK electricity generation in 2019.

- (i) Calculate the percentage of total electricity which was supplied to **domestic** consumers in 2019.

Show your working and give your answer to **one** decimal place.

..... % [2]

Where candidates gained full marks they identified the numbers correctly from the numbers in Fig. 3. They recognised that domestic energy was a part of the All (which was the total), and so used the correct formula to calculate a percentage.

Assessment for learning



Centres are reminded that the form of how the response should be written is often stipulated in the question. For Question 1 (d) (i) and Question 1 (d) (ii), the responses should be given to **one** decimal place. Some candidates were not given a mark where they gave whole numbers. The question also asks candidates to show their working out, marks are given for the correct calculation.

Question 1 (d) (ii)

- (ii) Calculate the **total** electricity generated in the UK in 2018.

Show your working and give your answer to **one** decimal place.

.....TWh [2]

The correct response was 333.0 TWh and only a minority of candidates were given full marks. It is important for candidates to remember to show their working as this may be given marks, even if the final response is incorrect.

Question 1 (d) (iii)

- (iii) Carbon emissions are carbon compounds (such as carbon dioxide) released into the atmosphere, often through human activity.

Using Fig. 3, explain two reasons why carbon emissions across the UK may have decreased.

1

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.....

.....

2

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.....

.....

[4]

Where candidates were given marks, they used distinctively different points and did not repeat the question as part of their response. Candidates often focused on the changes in energy source for both parts of the response, which meant their responses generally mirrored each other and so full marks could not be given. For example, if a reduction in non-renewables reduces carbon emissions, marks could not also be given for an increase in renewables which reduces carbon because they are, in effect, two sides of the same coin. Candidates should be encouraged to look at all parts of the information provided in a table.

Exemplar 1

There is more awareness about the harm and damage carbon emissions ~~are causing~~ are causing, how it causes the enhanced greenhouse effect, so people are consciously making their carbon footprint better, ~~and a significant amount of~~ ~~more~~ more renewable energy sources are being used, such as solar, wind and HEP, which do not emit carbon, so overall less carbon is emitted.

Exemplar 1 is given 4 marks because it has two clear separate points. The first point discusses how awareness of the harm from carbon emissions results in people making a conscious decision to reduce their carbon footprint. The second point highlights how an increase in the use of renewable energy, which does not emit carbon, reduces carbon emissions.

Question 1 (e)*

(e)* Nottingham is trying to become a low-carbon city.

They have:

- Europe's largest electric bus fleet with 45 fully electric buses in operation
- Expansion of the tram system to three lines 34 km long
- Electric vehicles operating in a growing car-share club
- Electric vehicle charging points already in place at Park and Ride sites, workplaces and tourist destinations
- Two local taxi companies operating six fully electric and 150 hybrid vehicles

Assess how far transport developments have been the **main reason** for more sustainable energy use in cities across the UK.

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[8]

Most candidates were able to use the resource provided successfully to explain the contribution of transport to sustainable energy use in UK cities. The most successful candidates were then able to compare this (synoptically) to other strategies such as the use of renewable energy to power homes or strategies to reduce energy use in homes, e.g. insulation and then make a reasoned judgement

Candidates should be encouraged to think about how they structure their response, both in terms of content and layout. There are three main parts to the question; How transport developments have led to sustainable energy use in cities across the UK, what other developments could have led to a change in energy use and the extent to which transport was the main driver. Therefore, a discrete paragraph with the pros and cons of each point, followed by a third containing the judgement will allow candidates to be very clear they have addressed all parts of the question.

Question 2 (a) (i)

2 (a) Look at **Fig. 4** in the Resource Booklet, which shows the results of a questionnaire on people's opinions about Fracking in the US.

(i) Which age group in **Fig. 4** has the most people who are **opposed** to fracking?

..... [1]

Most candidates identified 30-49 as the age group most opposed to fracking.

Question 2 (a) (ii)

(ii) Name the presentation technique being used to display information in **Fig. 4**.

..... [1]

Most candidates were not able to correctly identify the presentation technique which was a divided bar chart. Centres are reminded to expose candidates to all presentation techniques listed in the specification.

Question 2 (a) (iii)

(iii) Suggest **one** alternative way that the data in **Fig. 4** might be displayed effectively.

Justify your choice.

.....
.....
.....
.....
..... [2]

Candidates were generally able to identify a suitable alternative method with bar charts and pie charts being the most common responses. However, candidates often did not justify their choice well by relating their choice to the context of what is being presented.

Question 2 (a) (iv)

(iv) Describe the **pattern** shown in **Fig. 4** of people's opinions on the use of fracking in the US.

Use **data** in your answer.

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..... [4]

Most candidates were able to identify patterns and use data. The most successful responses identified distinct patterns and backed these with clear data use.

Question 2 (b)

(b) Look at **Fig. 5** in the Resource Booklet, a photograph of a Hydraulic Fracturing (Fracking) Well in Alaska.

Identify **one** environmental impact of fracking on the ecosystem shown in **Fig. 5**.

Give **reasons** for your answer.

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..... [3]

This question was best answered when candidates clearly identified one impact that was shown in the figure and gave reasons for it. Many candidates did not use the evidence from Fig. 5 well and lacked clarity to gain full marks. Some successful responses were given when linked directly to the picture, such as links to machinery. Candidates were not given marks if they gave responses relating to global warming, and the environmental impact of this on the polar environment.

Question 2 (c)

(c) Fossil fuels are finite resources which are extracted from the ground. Examples include coal, natural gas and oil.

To what extent do you agree with the statement that:

'Extracting fossil fuels is most damaging to polar ecosystems'.

.....

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..... [6]

Many candidates focused on the use of fossil fuels rather than the extraction of fossil fuels. They also struggled to relate the extraction of fossil fuels to other ecosystems. Where candidates were placed in Level 3, they were able to relate the impacts of extraction to the unique environment of polar ecosystems, e.g. fragility or the importance of ice, and then compare this to how other ecosystems, e.g. Tropical Rainforests (deforestation) or Ocean (oil leaks) were affected.

Question 3 (b) (i)

(b) (i) Identify **two** features of the pattern of US exports.

1

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2

.....

[2]

Candidates were given full marks in this question when they were specific and focused on more than one aspect of the map, e.g. where most exports went to as well as a change in the volume/volume compared to other countries.

Question 3 (b) (ii)

(ii) Suggest **one** way the presentation of this information might be **improved**.

Explain your answer.

.....

.....

.....

..... [2]

Candidates were given full marks when their response was specific to the data presentation provided i.e. contextualised. Some candidates misunderstood the question and thought they had to name an alternative form of data presentation.

Section B overview

The second part of the examination was focused on fieldwork and requires candidates to use their skills as well as experiences to answer the questions. There is one section on human geography fieldwork questions and one on physical geography fieldwork questions. There are still mistakes made where candidates wrote about the wrong type of fieldwork; centres must make sure that candidates understand the differences.

A few candidates had clearly not been on fieldwork. The specification says '*Centres must provide fieldwork opportunities for their candidates. This does not go so far as to oblige centres to make sure that all of their candidates take part in the fieldwork.*' There is always a risk that an individual candidate may miss the arranged fieldwork, for example because of illness. Candidates who do not take up the opportunity may be disadvantaged, as there will be questions on fieldwork in the exam. Therefore, should a centre have candidates who have been unable to participate in the offered fieldwork for any reason, there should be a concerted effort to make sure that those candidates still understand the processes and can potentially access the examination questions.

Question 4 (a)

Geographical Fieldwork

- 4 Some Geography students have been conducting **physical geography** fieldwork in Hornsea, on the east coast of England.

(a) Look at **Fig. 7** in the Resource Booklet, which shows the coastal fieldwork data collection.

Suggest **two** ways the students might improve the **map** of site locations.

1

2

[2]

Candidates who were able to identify what a good map in geography should always include, e.g. scale, north arrows, generally did well in this question. Other responses, such as naming the sites, were also common.

Question 4 (b)

(b) Students collected information about beach sediment at three different sites.

Describe a **sampling method** that might be used to collect the beach sediment.

Give reasons **why** this would be an appropriate choice.

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.....

..... [6]

Many candidates were not able to name a sampling method and so wrote about collecting pebbles in general, which was not given any marks. The most successful responses clearly identified a sampling method, described how the method is carried out and justified its use. Although not needed, some candidates explained why their sampling method was stronger than other methods and this strengthened their response.

Exemplar 2

The sampling method needs to be random. The students could randomly generate some coordinates of areas to collect sediment from. A quadrat or belt transect model could be used to see how sediment size and abundance changes when you move further away from the water. At each site, you should collect sediment from different areas to show a more accurate representation of the sediment size and shape. The sampling method needs to be random to eliminate conscious bias because people are more likely to sample areas with the smallest/largest sediment. You could collect a few several buckets of sediment from each site and determine [6] the shape and size of the sediment. By collecting several samples for each site, you could calculate an average for more accurate results.

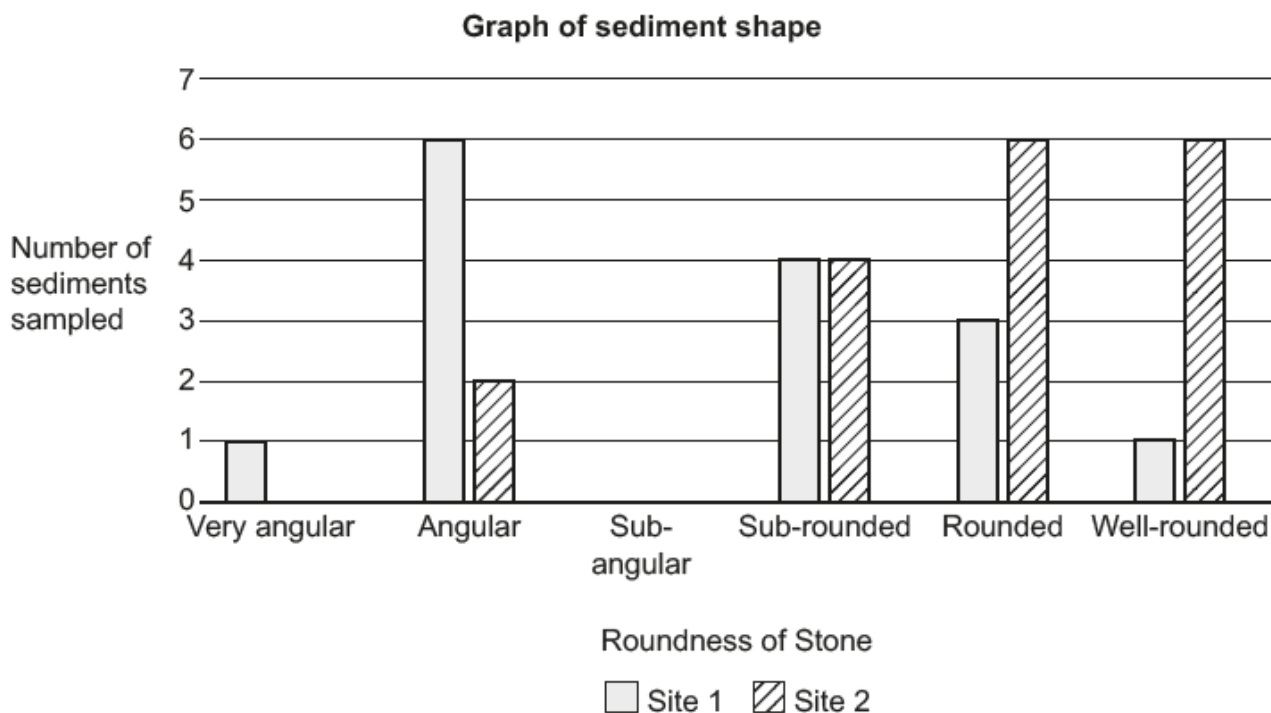
Exemplar 2, the candidate clearly suggests random sampling as a method before describing how it might be conducted. They then explain how it eliminates conscious bias from the sampling.

Question 4 (c) (i)

The data in the table below shows the shape of stones at Site 1 and Site 2.

	Very angular	Angular	Sub-angular	Sub-rounded	Rounded	Well-rounded
Site 1	1	6	5	4	3	1
Site 2	0	2	3	4	6	6

(c) (i) Complete the graph of sediment shape using the data in the table for **Sub-angular** sediment at Site 1 and Site 2.



[1]

Most candidates completed the bar chart successfully. For some candidates, careless mistakes like not ensuring the bars were drawn to the correct length, hindered gaining a mark.

Question 4 (c) (ii)

(ii) Describe **one** difference in the results between Site 1 and Site 2 shown on the graph.

.....

..... [1]

Most candidates were able to identify one comparison. Where candidates had not compared, e.g. used comparative language and just stated a fact about either site, they were not given the mark.

Question 4 (d)*

(d)* Look at **Fig. 7** in the Resource Booklet, which shows the sites used for data collection.

Look at the **graph of sediment shape** on page 10.

Assess the possible **conclusions** that might be drawn from this coastal investigation.

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..... [8]

 Spelling, punctuation and grammar and the use of specialist terminology [3]

Candidates who used the full range of evidence and drew on good understanding of coastal processes were able to make suitably strong conclusions to gain Level 3 responses. Some candidates focused on only one piece of evidence which hindered their ability to gain higher marks.

Question 5 (a)

5 You will have taken part in fieldwork in a **human geography** environment, such as a town or city.

State your fieldwork question for investigation:

.....
.....

Fieldwork location:

(a) Justify your **choice** of fieldwork location.

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.....
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.....
.....
..... [2]

The most common responses related to distance from school and accessibility. Where candidates tried to relate their fieldwork location to their fieldwork question, responses were often less successful.

Misconception



There are still too many candidates who are not writing about the correct type of fieldwork. The questions stem clearly requests that candidates refer to their human geography fieldwork, but there were a number of candidates who wrote about their river or coastal fieldwork. It is vital that candidates have experience for both human and physical fieldwork, and that they can distinguish between them. Where centres use the same location to study both elements, it is important that clear distinction is made between the research questions to avoid this confusion

Exemplar 3

The accuracy of the results could be improved by a lot because for ~~the~~ ^{some of} the categories such as retail rate and pedestrian count, what time the experiment was conducted mattered a lot because my team conducted pedestrian count of Oracle first at 10:30 am and we only got 184 people whereas we conducted pedestrian count of Broad Street Mall at 2:10 pm and we counted 558 people. The time of the day affected the accuracy of the results. To improve this we must conduct the same test pedestrian count for all three places at the same time to get accurate and valid results. For environmental quality survey the weather affected our results because when doing Oracle the weather was nice and sunny and the results were all good. But when conducting EAS for Broad Street Mall the weather was rainy so the results were less than average. To improve both the ~~exper~~ EAS should be conducted under the same weather. At midday people will come out for lunch so pedestrian count will increase in the afternoon.

The candidate provides a thorough evaluation that the impact of time of day and weather has on their results. They include limitations of accuracy and suggestions for improvement and include specific reference to places and results from their fieldwork for full marks.

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