OCR
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GCSE (9-1)

Examiners' report

GEOGRAPHY A (GEOGRAPHICAL THEMES)

J383
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Version 1

Contents

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. 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 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 the questions. They are assessed on their own understanding (AO2) and they are required to apply their knowledge and understanding (AO2) to answer the questions throughout the paper. As this is a geographical skills paper candidates are also assessed on this (AO3) to included maths and statistics in geography.

On the whole, candidates have done well this year, and this is reflected in the grade boundaries for this paper.

Section A overview

This section contains three questions which require in depth use of the figures. Candidates need to be clear as to 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 answers.. 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)

1   Study **Fig. 1** in the separate Resource Booklet, an article about renewable energy.

    (a)   **(i)**   Calculate the percentage of energy supplied by **non-renewable** sources on 7 June 2017.

              .... **[1]**

> The vast majority of candidates calculated this figure correctly. Where candidates made mistakes was due to some confusing non-renewables with renewables.

Question 1 (a) (ii)

    (ii)   Identify the two renewable sources of energy mentioned in **Fig. 1**.

        A   gas and coal
        B   nuclear and solar
        C   wind and nuclear
        D   wind and solar

        Write the correct letter in the box.   **[1]**

> Most candidates correctly chose D.

?	**Misconception**	The most common incorrect answer was C followed by B, suggesting there was a misconception of nuclear power being renewable.

Question 1 (a) (iii)

    (iii)   Using information from **Fig. 1**, identify **two** benefits of the increased use of renewable energy.

        1 ....

        2 ....
                                         [2]

> Majority of candidates answered correctly with the most common answer being reducing greenhouse gases and replace carbon-intensive sources. The most common incorrect answer was wind, nuclear and solar generated more than both gas and coal combined. Where some candidates did not achieve any marks on this question, it was clear that they had not used the resource.

Question 1 (b) (i)

Study **Fig. 2** in the separate Resource Booklet, a map showing average sunshine hours for the United Kingdom.

(b) (i) Name the shading technique being used to display the information in **Fig. 2**.

    A   Choropleth
    B   Isoline
    C   Proportional
    D   Relief

Write the correct letter in the box.   ☐   **[1]**

> Majority of candidates answered correctly. Most common incorrect answer was B suggesting a lack of understanding of the difference between the two (choropleth and isoline).

Question 1 (b) (ii)

(ii) Describe the pattern of January sunshine hours across the UK. Use data from **Fig. 2** in your answer.

....

....

....

....

....

.... **[4]**

> This question proved a challenge for a large number of candidates, with some finding the use of a choropleth map difficult. The best answers were where there was a clear comparison and supporting data from the map. Some candidates felt the need to talk about every place in the UK, or wrote about top or bottom of the UK rather than north / south.

Exemplar 1

your answer.

The sunshine hours are highest on the ~~North~~ East Coast of the UK - they get lower as you move West and also as you move North to Scotland where parts of Northern Scotland only get less than 20 hours of sunshine.

> Exemplar 1 scored full marks for its clear and simple description of the pattern. There is one mark for saying the sunshine hours is highest on the East coast, and a second for the comparison to the North of Scotland. A third mark is given for accurate use of the figure, and the communication mark is given for the logical flow of the answer.

Question 1 (b) (iii)

(iii)   Suggest **one** reason for the pattern of sunshine hours seen in **Fig. 2**.

.... [1]

The most common correct answers were latitude and closeness to the equator. Most answers were one-word e.g. mountains or upland areas which alluded to a basic understanding but maybe lacking the ability expand on the connection between sunshine hours and relief.

Question 1 (c)

(c)   The table below shows the mean July sunshine hours for a number of UK cities.

City	Mean sunshine hours (July)
Birmingham	184
Cambridge	188
Ipswich	217
London	192
Oxford	207
Manchester	180
Newcastle	172
Sheffield	200
Cardiff	199
Edinburgh	174
Glasgow	154

Calculate the lower quartile value of sunshine hours for the cities shown.
You must show your working out.

.... [3]

It is clear from marking that some candidates knew exactly what they were doing in this question and, as a result, achieved full marks. However, there were a large number who did not understand what the lower quartile was.

Some candidates did not answer the question or tried to calculate the mean of the data.
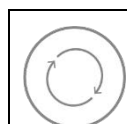
	AfL	Page 14 of the Specification details all the numerical and statistical skills that candidates should be able to do. Many of these will already be covered in Maths or Science, so it is worth having a discussion with those departments to ensure consistency in approach. In many cases, students will already have the skill, but may just need support in applying it to a geographical context.

Question 1 (d)

(d) Study **Fig. 3a** in the separate Resource Booklet, information about a solar farm near Ipswich, Suffolk.

Using **Fig. 3a** and the table above, suggest **two** reasons for the choice of site.

....

....

....

....

.... **[2]**

The majority of candidates scored at least 1 mark. The most popular answers were good levels of screening, highest sunshine hours and flat land /disused airfield. The most common incorrect answer was the species-rich grassland areas.

Question 1 (e)

(e)* Study **Fig. 3b** in the separate Resource booklet, a diagram about the impact of mechanised farming.

To what extent do you agree with the statement that *'Renewable energy has modified the UK environment more than the mechanisation of farming'*?

Use **Figs 3a and 3b** from the Resource Booklet **and your own understanding** to answer.

....

....

.... **[8]**

Many candidates did well on this question with the best answers using both figures and their own understanding of the issue. In order to ensure top marks, candidates had to discuss both renewable energy and mechanisation and ensure there was a clear judgement as to the extent they agree. The best answers made effective use of the resources, considering both positive and negative impacts and added other ideas from their own understanding or extended the ideas they got from the figures. The weaker answers tended to lift text from the figures and some of the weakest muddled non-renewable and renewable resources.

Candidates should be encouraged to think about how they structure their answer, both in terms of content and layout. There are three main parts to the question; How renewable energy has modified the UK environment, how mechanisation of farming has modified the UK environment and the extent to which one has done it more than the other. 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)

2   Study **Fig. 4** in the separate Resource Booklet, information about electricity use in selected LIDCs.

(a) Which country has the highest proportion of its citizens who are without electricity?

A   Ethiopia
B   Ghana
C   Nigeria
D   Tanzania

Write the correct letter in the box. [ ]   [1]

This question was generally well answered, and the majority of candidates got it correct (D – Tanzania). It is important to remember that a letter is required in the box, not a tick or any other mark.

Question 2 (b)

(b) Calculate the number of people in Ghana who **do have** access to electricity.

Show your working out.

.... [2]

Most candidates attempted this question (compared to 1c). There were a variety of creditable ways the candidates could demonstrate their working to achieve full marks. Some candidates did not gain marks because they wrote 14.4 or by trying to write 14,400,000 but getting the wrong number of zeros.

Question 2 (c)

(c) **Fig. 4** uses proportional blocks to display some of its information. Describe how, and use data to provide an example.

....

....

....

....

.... [2]

Many described what it showed rather than how it showed it and as a result very few candidates gained 2 marks, with many candidates focusing on the percentages with and without electricity, without linking to the width of the bar.

Exemplar 2

fig 4 shows that the wider the box, the higher
amount (in millions) that the population is.
Nigeria shows the widest box because it
has 160 million people whereas Ghana has the
thinnest box due to 24 million as their population [2]

In Exemplar 2 the candidate describes how the width represents population, and then supports it with data from the figure.

Question 2 (d)

(d) Using information from **Fig. 4**, compare electricity use in Kenya and Nigeria.

....

....

....

....

....

.... **[3]**

Many candidates achieved 2 marks with a simple comparative statement supported by comparative data. However, some stated proportions with and without electricity within one country rather than comparing the two countries. A small proportion used data from other countries instead of Kenya.

Question 2 (e)

(e) Suggest **one** alternative way that the data in **Fig. 4** might be displayed effectively. Justify your choice.

....

....

....

....

....

....

.... **[3]**

This was generally answered well with common answers including; bar chart or pie chart with a simple explanation of it being easy to read. A common second development mark was given for reference to being able to easily compare. Some focused on describing the presentation technique rather than why it would be a good choice. Errors came from giving an inappropriate method such as line or scatter graph or from assessing the method shown in the figure rather than offering an alternative.
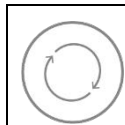
Question 3 (a)

3 Study the scatter graph below, which shows data on energy use and gross national income (GNI) for selected countries.
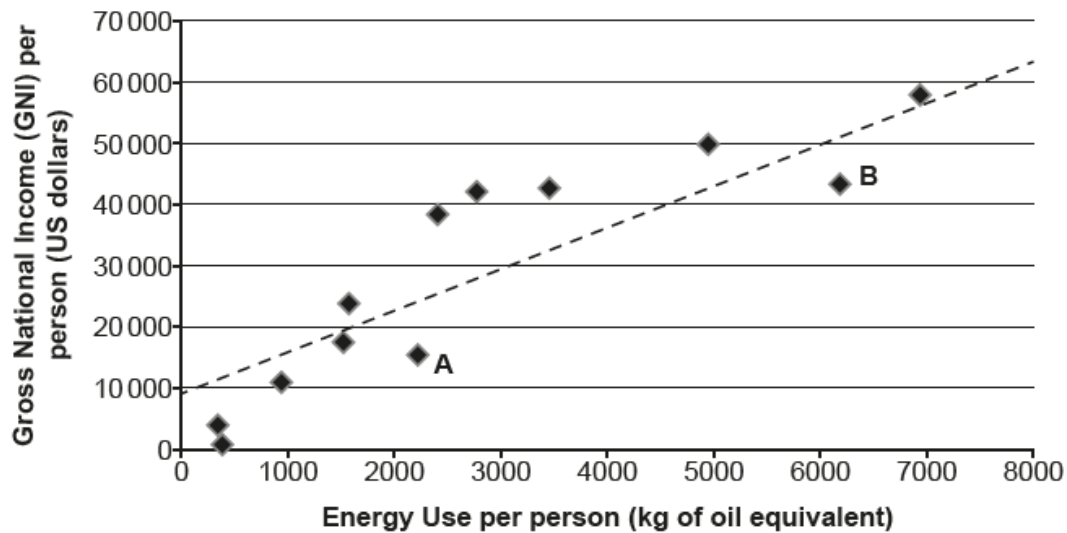
(a) Estimate the energy use per person for a country with a GNI per person of 30 000 US dollars.

.... kg of oil equivalent [1]

The answer range was 3000 – 3200kg of oil equivalent and most candidates answered correctly.

	AfL	Candidates should be encouraged to annotate and draw on the paper, particularly when given graphs, as it will help them to ascertain the correct answer.

Question 3 (b)

(b) What would be the most likely GNI per person for a country with an energy use of 9000 kg of oil equivalent?

A   65 000 US dollars
B   70 000 US dollars
C   80 000 US dollars
D   85 000 US dollars

Write the correct letter in the box.   [1]

B was the correct answer; which most candidates were able to identify.

Question 3 (c)

(c) Suggest **one** reason for the relationship shown. Explain your answer.

....

....

....

....

.... **[3]**

In this question, answers were less secure in terms of specific energy uses; most of the time the candidates mentioned that as GNI goes up so does the energy used and few mention richer countries have better infrastructure for energy. In addition, answers were often confused, stating that because more electricity was used the GNI is higher.

Question 3 (d)

(d) State whether Country **A** or **B** on the graph on page 7 is more likely to be an Emerging Developing Country (EDC). Justify your choice.

....

....

.... **[2]**

A significant number of candidates did not answer this correctly and those that did missed the opportunity to suggest that the simple reason is because it is lower than B on the graph.

Question 3 (e)

(e) Study **Fig. 5** in the separate Resource Booklet, a newspaper article about an LIDC aid project.

Assess whether renewable energy will have a greater long-term impact in **Lower Income Developing Countries (LIDCs)**, such as Sierra Leone, than in **Advanced Countries (ACs)**, such as the UK.

....

....

.... **[6]**

Where used, common justification for assessing the impacts were around saving lives, limiting effects of climate change, providing more energy and limiting pollution. Assessing use in relation to ACs was the more challenging element of this question, but this meant it did differentiate well conceptually. An example of a Level 3 (6 mark) answer is shown in Exemplar 3: It covers both the possible impacts in the LIDC and the AC, giving pros and cons for each, and gives a concise conclusion at the end.

Exemplar 3

long term, renewable energy impacts healthcare, education and sustainable development in low-income countries as it will increase efficiency and effectiveness of vaccines and medicines. ACs will also be impacted by renewable energy through lower carbon emissions and greenhouse gases produced. This could stop global warming and sea level rise. However, renewable energy will have a greater impact on LIDCs as better healthcare and education directly affects the whole population and therefore increase quality of life of many more [millions of] people. In ACs, whilst reducing carbon emissions is ~~some~~ a long-term goal would impact many [6] lives being in danger of the effects of global warming such as people living on coasts; it is not a greater impact than renewable energy used in LIDCs. LIDCs also such as Sierra Leone can also harniss more sunlight energy, therefore [can] produce more energy. This can lead to sustainable development and potentially stop uneven development. Renewable energy is also easier to use in LIDCs due to most being located in extremely windy or hot places. This means that they would be impacted more greatly that ACs.

Section B overview

The second part of the examination is focused on fieldwork and requires candidates to use their skills as well as experiences to answer the questions. There is one section on human and one of physical geography fieldwork questions. It was pleasing to see from last year that far fewer mistakes were made where candidates wrote about the wrong type of fieldwork; centres have done a good job in ensuring that candidates understand the differences.

There were a small minority who 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 ensure 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 [...] assessment.* 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 ensure that those candidates still understand the processes and can potentially access the examination questions.

Question 4 (a) (i)

4 Some Geography students have been conducting **human geography** fieldwork in the Lake District. They were investigating the effects of tourism.

The results of part of a questionnaire they completed are shown in the table below.

Question	Answer	Number of responses
1. How far have you travelled today?	<1	35
	between 1–5	28
	5–10	8
	10 or more	29
2. How did you get to Ambleside?	Car	60
	Coach	15
	Bus	5
	Walked	20

(a) (i) Complete and label the pie chart below to show the results of Question 2 from the questionnaire shown above.
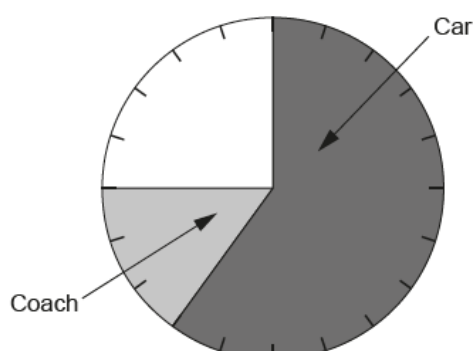
[2]

The vast majority of candidates answered the question correctly, gaining the full 2 marks. There were very few incorrect responses, and they were usually as a result of incorrect division of the sector or only labelling one part of the graph. There were, however, quite a number of blank responses – candidates should be encouraged to attempt all questions.

Question 4 (a) (ii)

(ii) Suggest **two** ways that the data collected for Question 1 of the questionnaire might be improved.

1 ....

2 ....

[2]

Full range of responses observed. More able candidates gained the full 2 marks, notably stating responses involving use of units and overlapping of categories. Few candidates mentioned greater range of distances. The majority of candidates gained one mark [reference to units]. A limited number of candidates provided responses not worthy of credit.

Question 4 (a) (iii)

(iii) Suggest **one** more question that might be used in the questionnaire to investigate the effects of tourism.

....

....

[1]

The majority of candidates answered the question correctly, providing a suitable question linked to tourism, gaining the one mark. Those who didn't gain a mark tended to ask a question which was not linked to tourism.

Question 4 (b)

(b) Study **Fig. 6** in the separate Resource Booklet, which shows a map and photographs of the sites studied.

Add **three** annotations to the photograph of site 1 below, to show the effects of tourism at the site.

[3]

The best candidates did provide adequate and relevant annotations. A greater number of candidates attempted annotation, but did not include the additional detail required to gain a mark.

A good way to think about this is the "so what" detail – a candidate makes a point and thinks "so what?". This should prompt them to add a little more explanation to turn a label into an annotation.

For example, 'Guest house' would not have achieved a mark because it does not show the effects of tourism. Ask "so what?" and the annotation becomes 'Guest house, so tourists can stay in the village'

Exemplar 4

One way traffic has been put in place in oder to improve the efficiency of cars moving through the town.

large pavements for tourists safety when walking have been added.

Car parking spaces have been fitted for tourists to park. for amaximum stay of 1 hour
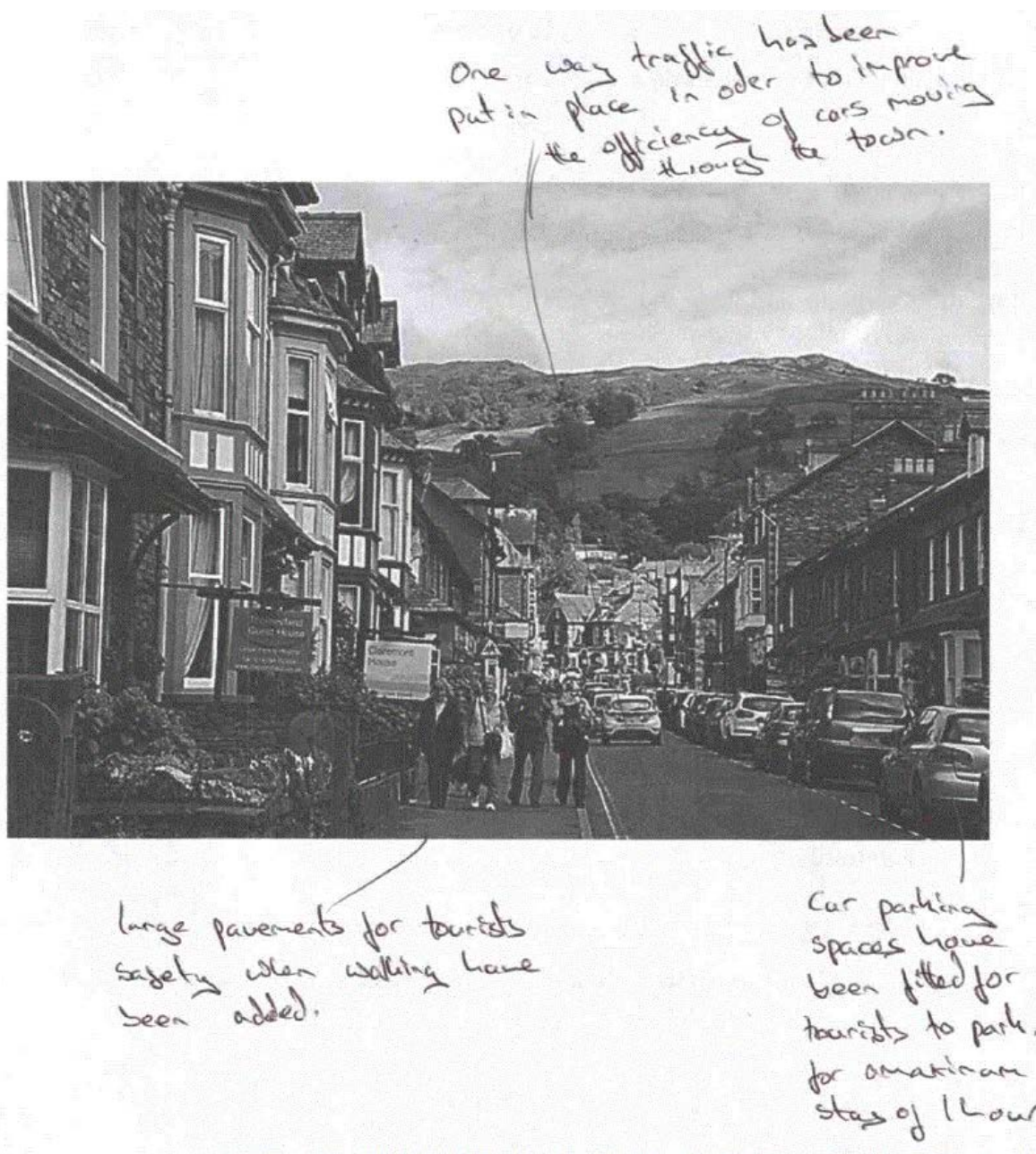
Exemplar 4 shows three excellent annotations which go beyond the simple one or two word labels that tended to define weaker responses. There were a significant number of blank responses, so candidates need to be reminded to attempt every question.

Question 4 (c)

(c) The students also completed environmental surveys at the two sites. The results are shown below.

Ambleside Environmental Quality Survey		
Environmental Quality	Site 1	Site 2
Traffic Noise	−2	3
Air Quality	−3	2
Building attractiveness	3	1
Road Maintenance	−1	2
Graffiti	3	3
Illegal Parking	−2	1
Noise from pedestrians	1	3

−3 most negative score
+3 most positive score

Select **one** method that might be used to display the data from the table above. Explain why you chose this method.

....

....

.... **[2]**

Many Stronger responses gained the full 2 marks, providing an appropriate method and relevant validation. Many candidates only gained one mark, providing a suitable method of presentation without validation e.g. "bar graph".

Question 4 (d)

(d) Using evidence from **all** the fieldwork data provided, examine whether traffic is likely to be a problem for the village of Ambleside.

....

....

.... **[6]**

A limited number of candidates achieved 6/6 marks, although a significant number of candidates reached Level 3. Stronger responses identified relevant traffic issues and completed an evaluation supported by the fieldwork evidence [frequently comparing environmental survey data for Site 1 and Site 2]. The majority of candidates provided developed ideas, reaching Level 2 by identifying/evaluating the issues and making some reference to the fieldwork data (analysis – AO3). Weaker responses reached Level 1 by identifying some issues for the village..

Question 5 (a)

5   You will have taken part in fieldwork in a **physical geography** environment as part of your studies. Examples might include a river or coastal study.

State your fieldwork question for investigation: ....

....

....

Location of study area: ....

(a)   Assess whether your primary data collection was successful.

....

.... [6]

A good number of candidates gained the full 6 marks and many reached Level 3. Stronger responses analysed appropriate physical geography primary data collection techniques, included individual data/observations and wrote in a logical manner as shown in the Exemplar 5 which achieved full marks.

Most candidates reached Level 2. Here they identified relevant techniques, but were weaker on the analysis. There were a significant number of Level 1 responses and a limited number of candidates, while writing about fieldwork, offered no comment about the techniques employed. There were a small number of human geography responses that qualified for Level 1.

Exemplar 5

We used Power's Roundness chart to measure the roundness of the rocks rocks as we moved down the beach. However, this was not very successful as it was a subjective method of data collection, therefore our results were unreliable

We used a cat clinometer to measure the gradient of the Beach. The clinometer was quite easy to use, however it was not a digital clinometer, therefore our results could have been more accurate.

When picking out rocks to sample, we used quadrats and picked 4 rocks from each corner. This was successful [6] as it was easy to do and removed bias, therefore our results were more reliable. However next time, using a random number generator to pick points of where to place the quadrat. would that would increase reliability.

Question 5 (b)

(b)* Evaluate whether your **physical geography** fieldwork conclusions improved your understanding of a geographical question or issue.

....

.... **[8]**

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

The best answers were really specific about the fieldwork. The responses which scored high marks included comments about how the conclusions helped with their learning of a wider topic on rivers or coasts. These also had an element of explanation, e.g. "lower down the course the river gets wider, due to the increasing velocity. This means that the river has more power to erode by abrasion. Abrasion is the sandpapering away of the bed and banks by the river's load". Good quality responses also tried to explain any anomalies which were encountered. Better answers were specific to a location.

A few candidates didn't attempt this question at all or wrote very little. Some wrote almost exactly the same as they had written for 5a describing data collection methods or assessing the success of the methods, but did not link this to any evaluation of how it improved understanding of a geographical question or issue.

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