



Rewarding Learning

General Certificate of Secondary Education
2024

Geography

Unit 3

Fieldwork

[GGY31]

WEDNESDAY 5 JUNE

MARK SCHEME

General Marking Instructions

Introduction

Mark schemes are intended to ensure that the GCSE examinations are marked consistently and fairly. The mark schemes provide markers with an indication of the nature and range of candidates' responses likely to be worthy of credit. They also set out the criteria which they should apply in allocating marks to candidates' responses.

Assessment objectives

Below are the assessment objectives for GCSE Geography.

Candidates must show they are able to:

AO1 Demonstrate geographical knowledge and understanding of:

- Places, environments, processes and concepts; and
- The inter-relationships between places, environments and processes;

AO2 Apply knowledge and understanding to analyse, interpret and evaluate geographical information and issues and to make judgements; and

AO3 Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings.

Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity which may reasonably be expected of a 16-year-old which is the age at which the majority of candidates sit their GCSE examinations.

Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If the answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range of any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 16-year-old GCSE candidate.

Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate.

Marking calculations

In marking answers involving calculations, examiners should apply the 'own figure rule' so that candidates are not penalised more than once for a computational error.

Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

Tasks and questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the 'best fit' bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

- **Threshold performance:** Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.
- **Intermediate performance:** Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- **High performance:** Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is basic.

Level 2: Quality of written communication is good.

Level 3: Quality of written communication is excellent.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below.

Level 1

Spelling, punctuation and the rules of grammar are used with some accuracy so that meaning is reasonably clear. Candidates present some relevant information in a form and using a style of writing which suits its purpose. The text is reasonably legible. A limited range of specialist terms is used appropriately.

Level 2

Spelling, punctuation and the rules of grammar are used with considerable accuracy so that meaning is clear. Candidates present relevant information in a form and using a style of writing which suits its purpose. The text is legible. A good range of specialist terms is used appropriately.

Level 3

Spelling, punctuation and the rules of grammar are used with almost faultless accuracy so that meaning is clear. Candidates present, and organise effectively, relevant information in a form and using a style of writing which suits its purpose. The text is fluent and legible. A wide range of specialist terms is used skilfully and with precision.

Unit 3 – Fieldwork Mark Scheme

AVAILABLE MARKS

- 1 Planning is very important before any geographical enquiry is started. Complete Table 1 by using a tick (✓) to show **three** activities which take place at the planning stage.

Table 1

	Activities in the Planning Stage
Identifying the risks involved.	✓
Collecting data in the field.	
Developing an aim.	✓
Analysing results.	
Setting up Hypotheses to test.	✓
Presenting data in a graph.	

(3 × [1])

[3]

If candidate ticks four incl 3 correct = [2], five ticks incl 3 correct = [1].
All six ticked = [0]. Mark correct answers and then deduct mark for each additional tick.

3

- 2 Outline **one** advantage of using the geographical enquiry process to carry out any fieldwork investigation.

Answers must relate to the logical flow chart provided by the geographical enquiry process. Answer **must** be an advantage – [0] for disadvantage

Award [0] for a response not worthy of credit.

Award [1] for a basic outline of an advantage.

e.g. it gives stages to follow.

e.g. the geographical enquiry process has 6 steps (just refers to steps).

Award [2] for a clear outline of an advantage of using the geographical enquiry process or reference to 6 steps.

e.g. the geographical enquiry process provides a detailed framework of steps to follow when carrying out geographical investigations.

e.g. the geographical enquiry process gives a logical structure of the six steps to follow in geographical investigations.

[2]

2

- 3 (i) State **one** risk you considered when planning your fieldwork.
Question asked about your fieldwork so show context.

Candidates should identify one risk they identified during the planning stage of their fieldwork.

Award [1] for the identification of a suitable risk factor. A clear risk must be identified i.e. 'traffic' alone is not enough.

e.g. One risk could be that in our river study, we could slip on wet rocks and be injured falling into the river.

e.g. One risk from having to pick up stones in the river we could catch an infection from the water.

e.g. One risk in an urban study could be that students are injured by not watching carefully for traffic when crossing a road and could be knocked down by a car. [1]
Risks must match up with particular coursework.
Weil's disease needs reference to the risk for [1].
Weather conditions is not enough – needs aspect: rain = slip, sun = sunburn
Hypothermia needs more context to how

- (ii) Explain how you planned to reduce this risk.
Candidates are required to explain how they attempted to reduce the same risk which was identified in part (i) of answer
If explanation does not relate to stated risk award [0]
Award [0] for a response not worthy of credit

Award [1] for a basic explanation of how the stated risk was reduced
e.g. to minimise this risk we planned to use a safety rope.

Award [2] for a limited explanation of how the stated risk was reduced
e.g. to minimise this risk we planned to use a safety rope which we would stretch across from one river bank to the opposite bank.

Award [3] for a detailed explanation of how the stated risk was reduced
e.g. to minimise this risk we planned to hang a safety rope from one side of the river to the other. This would give us something to hold on if we felt someone was going to fall into the river. [3]

4

Answer must focus on one risk. If second risk is discussed – mark both and annotate. Award for highest mark.

- 4 (i) Name **one** secondary source you planned to use in your fieldwork.

Candidates are required to name a secondary source that they planned to use in their fieldwork investigation. Generic responses such as 'map' or 'textbook' are not acceptable and therefore are not credit worthy. The source identified should include appropriate detail. E.g. where the candidate refers to a map they should include further information such as the area covered by the map, the sheet number, scale or series (e.g. Landranger). Candidates who refer to a textbook should quote the correct title, e.g. GCSE Geography. River based fieldwork is a popular choice and candidates who have measured velocity may refer to the conversion chart that accompanies the flowmeter, this is acceptable as a secondary source.

Sources should be named precisely.

GCSE CCEA Geography textbook is ok (or detail on authors).

Bradshaw model/Powers' Roundness scale/Conversion tables/Census data are all enough for [1]. Previous data is acceptable. Photos (must have reference to what photos show).

Google maps or OS map without further detail is **not** enough for [1].

Use of map must have scale or area or further information.

Award [0] for a response not worthy of credit

Award [1] for the correct naming of a secondary source that could have been used in the fieldwork investigation, e.g. OS map of Newcastle area. [1]

- (ii) Describe how you planned to use **this** secondary source in your fieldwork investigation.

Answers must relate to the specific secondary source named and must be appropriate to the fieldwork investigation.

Award [0] for a response not worthy of credit or a source not related to the fieldwork investigation.

Award [1] for a basic description of how the candidate planned to use the secondary source

e.g. We planned to use the map to help us to find the different sites that we wanted to visit for the river study OR

e.g. We could use the map to measure distances between each site

Award [2] for a limited description of how the candidate planned to use the secondary source

e.g. We planned to use the map to help us find the different sites that we wanted to visit for a river study; the map would help us make sure that we could access each site safely

Award [3] for a detailed description of how the candidate planned to use the secondary source

e.g. We planned to use the map to help us find the different sites along the course of the river. We were also able to identify features such as meanders and waterfalls on the map. The map would help us to make sure we could access each site safely. Using the scale of the map we could measure the distance between each site and the source of the river.

Candidates can still access max marks if (i) is marked wrong.

One point made

One point + elaboration or **two** points with basic uses.

Answers can also relate to the interpretation stage and how the secondary source is used to link with geography theory. [3]

AVAILABLE
MARKS

4

- 5 (a) When you planned your fieldwork you stated at least two hypotheses.

State one hypothesis below and draw a graph for it, using data in your table.

The candidate must clearly state a hypothesis in the space provided. If the candidate does not write their chosen hypothesis in the space provided, the submitted statement of fieldwork aims and hypotheses should be checked to establish the likely hypothesis.

Award [0] for a response not worthy of credit.

Chosen hypothesis:

e.g. The pebble sizes in the Bloody Bridge River decrease with distance downstream.

Bar chart is also discrete data.

If candidate refers to a table or wrong type of graph – only award [1] if both variables are listed.

Title – only give [2] if all elements of hypothesis are covered in the graph, e.g. if Hypothesis says width and depth – [1] for each variable.

Title [2]

Award [1] for a basic title/partial title

e.g. A graph showing pebble size

Award [2] for a full title that refers to both variables

e.g. A bar chart showing how pebble size changes downstream

Type of graph must be correct for [2]
 If graph goes off the area of the graph paper penalty = [-1]
 A includes accurate use of shading, ruler and the consistency of approach – penalty = [-1]
 Accuracy needs to be checked carefully with the data table. No table = no accuracy marks.
 If graph is too small on the page penalty = [-1]
 Accuracy mark.

Annotate

Ti – 2

Te – 1

A – 3

C – 2 on the graph

Technique [1]

Award [1] for the use of an appropriate graphical technique to present the data from the table of data

Scattergraphs do not require a best fit line

Accuracy [3]

Award [1] for plotting precisely and accurately some of the available data, less than 50% of the available data is plotted accurately

Award [2] for plotting precisely and accurately the majority of the available data. There will be errors in the plotting of the data; however, a minimum of 50% of the available data will be plotted accurately

Award [3] for plotting precisely and accurately all of the data

Bedload shape needs a relevant key

Conventions [2]

Award [1] where at least one convention is missing or incomplete; one axis label might be missing or there are no units of measurement

Award [2] where all conventions have been followed and included

Scales for graphs should usually start at zero unless the graph has indicated an axis break. Penalty = [-1] [8]

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- (b) Use the graph you have drawn for part (a) to answer questions (b) (i), (ii) and (iii).

- (i) Describe the method that you used to collect data for this graph.

Candidates are required to describe the method they would use to collect the data for the graph presented in part (a)

Answers must focus on the collection of primary data

Where there is no link between the data collection methods described and the graph drawn in part (i) award [0]

Award [0] for a response not worthy of credit

No link to the graph drawn = [0]

All variables listed in the Hypothesis must be discussed, e.g. CSA = must talk about width and depth. If not max [2].

Award [1] for a basic description of the data collection method/s
 e.g. We used a tape measure

Award [2] for a limited description of the data collection method/s
 e.g. We stretched a tape measure from one bank of the river to the other and used a metre stick to measure the depth

Award [3] for a detailed description of the equipment and how it was

used to collect the data required
e.g. We stretched a 20 m tape measure from one bank of the river to the other and held it tightly above the level of the water; then we used a metre stick to record the depth of the water in centimetres at 50 cm intervals [3]

- (ii) Analyse (describe) your graph with reference to your hypothesis. Use figures to support your answer.
Candidates are required to analyse (describe) their graph as it relates to the stated hypothesis. The description should refer to the overall pattern, trend or relationship shown. Specific values should be quoted (e.g. start and finish). The presence of any anomalies or trend should be described including value/s.
Do not credit interpretation/explanation.
Description must be linked to the graph given.
Look for units of measurement.
Data and Trend (and anomaly)
Must have an overall trend for [3].
Any anomaly in graph should be discussed for [3]
Award [0] for an answer not worthy of credit
Award [1] for a basic analysis of the graph presented in part (a)
e.g. the river gets deeper
Award [2] for a limited analysis which may be partial or incomplete, figures may be omitted, clear anomalies are ignored
e.g. the river becomes deeper near the mouth where it measured 52 cms
Award [3] for a detailed answer which describes the overall pattern/trend shown quoting specific values (e.g. start and finish); describes any anomalies present including appropriate value/s
e.g. the graph shows that the river becomes deeper from its source where it measured 15 cms to its mouth where it measured 62 cms.
However, site 3 is an anomaly because instead of becoming deeper it actually became 13 cms shallower than site 2 [3]
- (iii) Using your knowledge of geographical theory, interpret (explain) the pattern/trend shown on your graph.

The focus of this question is on **explanation** and not analysis. If the given answer only analyses the graph – award [0]
The explanation/interpretation must be related to the data displayed on the graph in part (a). The answer will require the use of geographical theory to explain the relationship, trend or pattern shown in the graph. Alternatively, the candidate may propose reasons to explain why there is no obvious pattern, trend or relationship evident in the graph.

Award [0] for a response not worthy or credit

Level 1 ([1]–[2])

A basic interpretation/explanation of the graph that does not fully explain all aspects of the graph and does not use geographical theory to explain the relevant pattern or trend shown by the graph.
e.g. the river is deeper at Site 5 because it has eroded the river bed
Spelling, punctuation and the rules of grammar are used with some accuracy so that meaning is reasonably clear. Candidates present some relevant information in a form and using a style of writing which suits its purpose. The text is reasonably legible. A limited range of specialist terms is used appropriately.

Level 2 ([3]–[4])

A limited interpretation/explanation of the graph that covers the main pattern trend/relationship. However, use of geographical theory is simple and requires further detail. Equally, an answer containing lots of geographical theory but lacking interpretation of the graph will be confined to this level.

e.g. the river gets deeper from Sites 1 to 5 because it has been eroded by abrasion. This process wears down the river bed making the depth of the river increase.

Spelling, punctuation and the rules of grammar are used with considerable accuracy so that meaning is clear. Candidates present relevant information in a form and using a style of writing which suits its purpose. The text is legible. A good range of specialist terms is used appropriately.

Not all fieldwork lends itself to detailed use of theory – be mindful of this.

Level 3 ([5]–[6])

A detailed answer that provides a comprehensive interpretation/explanation of the graph and has covered the main pattern/trend/relationship and has integrated relevant geographical theory, using specialist terminology as appropriate.

e.g. the river becomes deeper from its source to its mouth due to erosion by abrasion. Abrasion is when rock fragments carried by the river grind against the river bed. This grinding causes the river channel to become deeper. The grinding is more powerful during a flood when large fragments of rock are carried along the river bed. These large fragments may have been deposited at Site 3 making the river shallower at Site 3 compared to Site 2. [6]

Spelling, punctuation and the rules of grammar are used with almost faultless accuracy so that meaning is clear. Candidates present and organize effectively relevant information in a form and using a style of writing which suits its purpose.

The text is fluent and legible. A wide range of specialist terms is used skilfully and with precision.

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- 6** Choose a **different** hypothesis from the one you used in **Question 5** and write it below.

There are no marks for writing out the second hypothesis.

Note: check to confirm that the candidate is using a different hypothesis from the one which was used in Question 5.

If the same hypothesis is used as was addressed in Question 5 maximum Level 1 marks

Evaluate the reliability of the conclusion reached for this hypothesis.

Award [0] for a response not worthy of credit

Level 1 ([1])

A brief response that may simply state the conclusion for the given hypothesis or gives a simplistic evaluation

e.g. The size and shape of stones from the source to the mouth became smaller and more rounded

e.g. Our conclusion was that the hypothesis was proved correct

Level 2 ([2]–[3])

A more detailed response that provides some evaluation of this

hypothesis which may refer to a problem or limitation with data collection
 e.g. We concluded that stones got smaller and more rounded from the source to the mouth. This conclusion is not totally reliable. This is because sometimes we only measured the large stones in the river and not the smaller stones which reduced the reliability of my data

Level 3 ([4]–[5])

A detailed response that provides a good evaluation of the conclusion reached in relation to the stated hypothesis. Answers at this level will be balanced and will have a full explanation of the issues related to the conclusion

e.g. We concluded that stones got smaller and more rounded from the source to the mouth. This conclusion is not totally reliable. This is because sometimes we only measured the large stones in the river and not the smaller stones and this might have caused bias in the results as students usually prefer taking the bigger stones out of the river; this reduced the reliability of our conclusion. However, one strength was that we measured 20 stones at each of the sites which provided a wide selection of stones.

This improved the overall reliability of our data collection and therefore my final conclusion.

Evaluation must have positive and negative points in relation to reliability.

[1] for statement of conclusion

[2] for positive reference to reliability of conclusion

[2] for negative reference of conclusion

Markers

S – 1

P – 2

N – 2

[5]

5

- 7 Outline **one** way you could extend the scope of your planned geographical fieldwork study, apart from studying a different variable.

Candidates should focus on **one** thing, not a list of different things.

Award [0] for an answer not worthy of credit

Award [0] for answer that focuses on a different variable

Award [1] for one appropriate way in which the scope of the fieldwork study could be extended

e.g. The fieldwork could be completed on a different day/month/time

e.g. More sites could be visited along the river

e.g. Visit a different river

Award [2] for a further description on how the fieldwork study could be extended

e.g. The fieldwork could be completed on a different day/month/time and the results compared with the previous results

e.g. More sites could be visited along the river to get a detailed picture of how it changes from source to mouth

Candidates should choose something which is not included in their table of data (this would be different variable anyway)

[2]

2

Total

40