



Rewarding Learning

General Certificate of Secondary Education
2023

Geography

Unit 3

Fieldwork

[GGY31]

FRIDAY 16 JUNE, AFTERNOON

**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.

- 1 (a) Complete **Fig. 1** by naming the three missing stages of the geographical enquiry process.

Only credit correct answer.

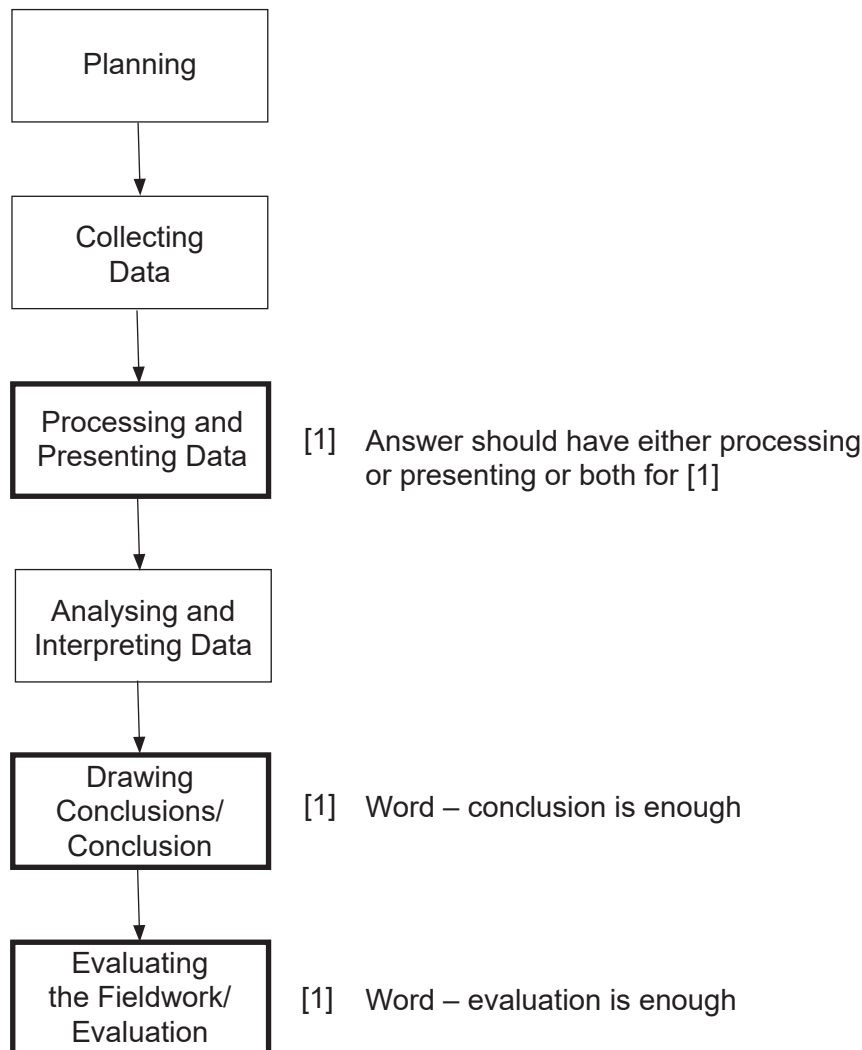


Fig.1

(3 × [1])

[3]

- (b) Explain the importance of planning in the geographical enquiry process.

Award [0] for a response not worthy of credit

Answer can be 3 × [1] statements or a detailed explanation on one element for [3]

Award [1] for a basic explanation of the importance of planning, e.g. Planning helps you meet your overall aim.

Award [2] for a limited explanation of the importance of planning, e.g. Planning helps you meet your overall aim. Therefore, you will be able to collect data that is relevant to your chosen hypothesis.

Award [3] for a detailed explanation of the importance of planning, e.g. This is essential to ensure you meet your overall aim as the data you collect must help you test your chosen hypotheses. Therefore, you must plan where and how you will collect your data. This will aid the collection

of reliable results. It will also help you to consider potential risks you may experience so that a detailed risk assessment can be produced. [3]

There are a wide range of acceptable things that candidates can talk about, e.g. Aim, Ref to hypothesis/hypotheses, plan when/how/where (location) data is collected, leads to reliable results/risks/risk assessment. Credit any reasonable alternatives.

(c) Outline **two** risks considered when planning **your** fieldwork investigation.

Risks must match up with the particular fieldwork selected.

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

Candidates should identify two risks from **their** fieldwork, identified during the planning stage of **their** fieldwork. One word is not enough to outline the risks.

Answers might include, but are not limited to:

- Injury from falling on slippery river banks,
- Potential drowning due to falling into the river or the sea
- Being knocked down by traffic, etc

Disease/Weil's disease needs explanation of risk for [1].

'Weather conditions' is not enough – needs explanation of the actual risk.

Risks should be clearly different from each other.

Must explain what the risk is (mitigation of risk alone is not enough for [1]).

Award (2 × [1]) [2]

8

2 (a) Explain, using examples, the difference between primary and secondary sources of data.

[1] for explanation of primary source + example (1 more mark).

[1] for explanation of secondary source + example (1 more mark).

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

Award [1]–[2] for a limited explanation of the difference between primary and secondary sources of data,

e.g. Primary data is data which you collect personally during your fieldwork [1].

e.g. Secondary data is data collected from sources other than the student [1].

e.g. Primary data is data which you collect personally during your fieldwork, for example, collecting and measuring stone size along various points of a river [2].

e.g. Secondary data is data collected from sources other than the student, for example using census information to calculate population size [2].

Examples should be relatively specific, e.g. websites/textbook/maps is not enough for [1].

Award [3]–[4] for a detailed explanation of the difference between primary and secondary sources of data,

e.g. Primary data is data which you collect personally during your fieldwork, for example, collecting and measuring stone size along various points of a river. Whereas secondary data is data collected from sources other than the student [3].

e.g. Primary data is data which you collect personally during your fieldwork, for example, collecting and measuring stone size along various points of a river. Whereas secondary data is data collected from sources other than the

student e.g. using census information to calculate population size [4]. [4]
See additional notes for further explanation.

AVAILABLE
MARKS

(b) Outline how **one** secondary source was used in your investigation.

Secondary source must be identified (no mark).

The answer must relate to the secondary source named and must fit in with the particular fieldwork described in the fieldwork statement.

Answers can relate to interpretation stage and how secondary source is used to link with geographical theory.

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

Award [1] for a basic response that attempts to show how the secondary source was used to support the particular fieldwork,
e.g. A map was used to help us to find the different sites that we wanted to visit for the river study.

Award [2] for a response that clearly shows how the secondary source was used within the fieldwork study,
e.g. A map was used to help us find the different sites that we wanted to visit for a river study. The map helped us to make sure that we could access each site safely. [2]

If candidate gives two (or more) sources then mark each separately and give the higher mark.

(c) Describe a primary data collection method you used and identify **one** actual or potential problem with this data collection method.

Candidates are required to describe how one data collection/methodology was carried out and identify one actual or potential problem with this method. Answers must focus on the collection of primary data only and its associated problem.

Where there is no link between the data collection methods described to the hypothesis listed in the submitted statement of aims and hypotheses award [0]. PDC must match up with the particular Hyp selected.

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

Level 1 ([1]–[2])

A response with a basic attempt to describe the data collection methods and/or an actual or potential problem linked to the hypothesis,
e.g. We collected ten stones [1].
e.g. We collected ten stones however bias occurred [2].

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.

Alternatively, candidates who have a detailed description of their method but no discussion of problem will be limited to max [4].

Level 2 ([3]–[4])

A response that provides a limited description of how the data was collected and one actual or potential problem associated with it, should make ref to equipment used,

e.g. At each site we placed a metre stick at various points on the river bed and collected 10 stones however bias still occurred [3].

e.g. At each site we placed a metre stick at various points on the river bed and collected 10 stones. Using callipers we measured the longest axis in mm of each stone. This was recorded onto the data collection sheet. However, bias still occurred [4].

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 ([5]–[6])

A response that provides a detailed description of how the data was collected including clear reference to any equipment and how it was used to collect the data required. One actual or potential problem associated with this method is clearly described,

e.g. At each site we placed a metre stick at various points on the river bed and collected 10 stones. Using callipers we measured the longest axis in mm of each stone and recorded the average onto the data collection sheet. However, bias still occurred [5] as some members of our group intentionally selected stones which were smaller in size [6].

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.

12

- 3 (a)** When you planned your fieldwork, you stated at least two hypotheses. State **one** hypothesis 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 must be checked to establish the likely hypothesis.

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

Title – only give [1] max if whole of hypothesis is not covered in the graph type, e.g. if Hyp was Width and Depth but graph only shows width.

The breakdown of marks is as follows:

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.
Scattergraphs do not require a best fit line.

Technique [1]

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

Alternatively, if graph scale goes off the area of the graph paper – take [1] off the Accuracy mark.

Accuracy [3]

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

Margin of error = half a small square.

Award [2] for plotting precisely and accurately the majority if 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.

Accuracy also includes accurate use of shading, ruler and the consistency of approach. Penalty – [1].

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

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 both conventions and units of measurement are provided. [8]
Scales for graphs should usually start at zero unless the candidate has indicated an axis break – penalty [1].

(b) State the meaning of the term **anomaly**.

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

Award [1] for a partial definition,
e.g. Something that is different,
e.g. Unexpected data.

Award [2] for a full definition,
e.g. Something that is different from what is usual or from what is expected
If example given can get 2nd mark.

[2]

(c) Analyse (describe) the pattern or relationship that your graph shows. 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 should be described including value/s.

Award [0] for an answer not worthy of credit. Do not credit interpretation/explanation.

Award [1]–[2] for a partial or incomplete analysis,
e.g. figures may be omitted, clear anomalies are ignored.
e.g. pebble size gets smaller downstream [1] Site 1 pebble size is....[2]

Award [3]–[4] for a detailed analysis which describes the overall pattern or trend shown quoting specific values (e.g. start and finish); describes any

anomalies present including appropriate values. [4]
 If no anomaly in the data – ensure that detail is precise for [4].
 Needs overall trend for [4].

(d) Interpret (explain) the pattern or relationship shown on your graph.

The focus of this question is explanation (interpretation) and not analysis (description). If the response is purely analysis award [0].
 The explanation must be related to the data presented in the graph in Question 3(a).

The geographical reason must relate to the relationship, pattern or trend shown. Alternatively, the candidate may propose reasons to explain why no obvious pattern, trend or relationship is evident on the graph.

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

Level 1 ([1])

A basic geographical explanation related to the relationship or trend shown,
 e.g. Pebble size gets smaller downstream due to erosional processes [1]
 e.g. The number of pedestrians increases with proximity to the CBD due to the location of multiple shops [1]

Level 2 [2]–[3]

A limited geographical explanation related to the relationship or trend shown,
 e.g. Pebble size gets smaller downstream due to erosional processes such as attrition and abrasion
 e.g. The number of pedestrians increases with proximity to the CBD due to the location of multiple shops selling both high and low order goods. [2]

Level 3 ([4])

A detailed geographical explanation related to the relationship or trend shown,
 e.g. Pebble size gets smaller because of erosional processes such as attrition which cause pebbles to collide into each other and abrasion [3] (which causes pebbles to grind against the river bank and bed.)
 e.g. The number of pedestrians increases with proximity to the CBD due to the location of multiple shops selling both high and low order goods. This therefore attracts people from other nearby settlements into the CBD (providing the area with a large sphere of influence.) [4]

18

4 State **two** ways you could extend your geographical fieldwork study in relation to your stated aim.

Award [0] for an answer not worthy of credit.

Award [1] for each correct answer,
 e.g. Complete our fieldwork on a different day/month/time and compare with our previous results,
 e.g. Extend the area which we have studied by including more sites.
 Candidates should choose something which is not included within the Table of data.

(2 × [1]) [2]

2

Total

40