

GCE

GEOGRAPHY

GEO4A Geography Fieldwork Investigation
Mark scheme

2030
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Version/Stage: 1.0 Final

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk

GEO4A General Guidance for GCE Geography Assistant Examiners

The mark scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communication but where questions are 'Levels' marked, written communication will be assessed as one of the criteria within each level.

Level 1: Language is basic, descriptions and explanations are over simplified and lack clarity.

Level 2: Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

Level 3: Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

Marking – the philosophy

Marking is positive and not negative.

Mark schemes – layout and style

The mark scheme for each question will have the following format:

- a) Notes for answers (nfa) – exemplars of the material that might be offered by candidates
- b) Mark scheme containing advice on the awarding of credit and levels indicators.

Point marking and Levels marking

- a) Questions with a mark range of 1-4 marks will be point marked.
- b) Levels will be used for all questions with a tariff of 5 marks and over.
- c) Two levels only for questions with a tariff of 5 to 8 marks.
- d) Three levels to be used for questions of 9 to 15 marks.

Levels Marking – General Criteria

Everyone involved in the levels marking process (examiners, teachers, students) should understand the criteria for moving from one level to the next – the 'triggers'. The following general criteria are designed to assist all involved in determining into which band the quality of response should be placed. It is anticipated that candidates' performances under the various elements will be broadly inter-related. Further development of these principles will be discussed during the standardisation process. In broad terms the levels will operate as follows:

Level 1: attempts the question to some extent (basic)

An answer at this level is likely to:

- display a basic understanding of the topic
- make one or two points without support of appropriate exemplification or application of principle
- give a basic list of characteristics, reasons and attitudes
- provide a basic account of a case study, or provide no case study evidence
- give a response to one command of a question where two (or more) commands are stated e.g. “describe and suggest reasons”
- demonstrate a simplistic style of writing perhaps lacking close relation to the terms of the question and unlikely to communicate complexity of subject matter
- lack organisation, relevance and specialist vocabulary
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

Level 2: answers the question (well/clearly)

An answer at this level is likely to:

- display a clear understanding of the topic
- make one or two points with support of appropriate exemplification and/or application of principle
- give a number of characteristics, reasons, attitudes
- provide clear use of case studies
- give responses to more than one command e.g. “describe and explain..”
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter
- demonstrate relevance and coherence with appropriate use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

Level 3: answers the question very well (detailed)

An answer at this level is likely to:

- display a detailed understanding of the topic
- make several points with support of appropriate exemplification and/or application of principle
- give a wide range of characteristics, reasons, attitudes
- provide detailed accounts of a range of case studies
- respond well to more than one command
- demonstrate evidence of discussion, evaluation, assessment and synthesis depending on the requirements of the assessment
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and incompleteness/ tentativeness of explanation
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which contribute to complete clarity of meaning.

Mechanics of marking

- Various codes may be used such as: 'rep' (repeated material), 'va' (vague), 'NAQ' (not answering question), 'seen', etc.
- Unless indicated otherwise, always mark text before marking maps and diagrams. Do not give double credit for the same point in text and diagrams.

Annotation of Scripts

It is most important that examiners mark clearly, according to the procedures set out below.

- The right hand margin should be used for marks only.
- Where an answer is marked using a levels response scheme, the examiner should annotate the scripts with 'L1', 'L2', or 'L3' at the point where that level has been reached in the left hand margin. At each point where the answer reaches that level, the appropriate levels indicator should be given. In addition, examiners may want to indicate strong material by annotating the script as 'Good Level...' . Further commentary may also be given at the end of the answer. Where an answer fails to achieve Level 1, zero marks should be given.
- Where answers do not require levels of response marking, the script should be annotated to show that one tick equals one mark. The tick should be positioned in the part of the answer which is thought to be creditworthy. For point marked question where no creditworthy points are made, zero marks should be given.

Other mechanics of marking

- All errors and contradictions should be underlined.
- Various codes may be used such as: 'rep' (repeated material), 'va' (vague), 'NAQ' (not answering question), 'seen', etc.
- Use a wavy line to indicate weak dubious material (avoiding crossing out).

Unless indicated otherwise, always mark text before marking maps and diagrams. Do not give double credit for the same point in text and diagrams.

<p>1</p> <p>AO1-2 AO2-2 AO3-4</p>	<p>Notes for answers</p> <p>'How' and 'why' allow candidates to take a variety of approaches to the selection of the investigation. This is likely to cover reference to why, e.g. underpinning theory, the characteristics of the location, possibly why the theory was applicable in this location and how, e.g. the accessibility of the site, reference to any risk assessment procedures. How may also include reference to equipment choices available, the input from the centre, advice from teachers and from other candidates.</p> <p>Mark scheme</p> <p>Level 1 (1-4 marks) Mid-point 3 marks The candidate will be unclear about the reason for the selection of the investigation. There may be some reference to the location and/or theory, including other points as set out above, though this will be descriptive, rather than explanatory. Reference to the candidate's own fieldwork will be absent at the lower end, though there may be some implicit reference at the upper end of the band.</p> <p>Level 2 (5-8 marks) Mid-point 7 marks There will be clear reference to an explanation for the selection of this investigation. It is likely that the theory will be covered, with some reference to the location; however, any relevant point explaining reasons for selection is acceptable. The reasons will be well covered at the upper end. There will be reference to the candidate's own fieldwork.</p>	<p>(8 marks)</p>
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<p>2</p> <p>AO1-2 AO2-4 AO3-6</p>	<p>Notes for Answers</p> <p>Evaluation of the effectiveness of the method of data collection is required to gain the highest marks. This may be primary or secondary. Any relevant method can be used. Reference to the effectiveness of this method may include strengths, limitations and the candidate's experience in the field, including possible/actual improvements. Comment and details on the use of sampling is relevant here, but it is not essential, as it is not required by the specification. Reference to the candidate's own fieldwork will be present at the higher levels.</p> <p>Mark scheme</p> <p>Level 1 (1-5 marks) Mid-point 3 marks There will be a basic awareness of effectiveness of the method selected. There is likely to be a strong focus on the strengths and/or weaknesses, rather than an evaluation of the effectiveness. Reference to any sampling used will be basic, if present. There may be basic reference to effectiveness and the candidate's own fieldwork experience is unlikely to be mentioned.</p> <p>Level 2 (6-10 marks) Mid-point 8 marks There will be clear reference to both effectiveness and evaluation but there is likely to be an imbalance. This will be very marked at the lower end, perhaps with implicit links, whereas, at the upper end, there will be clear evaluation of the effectiveness of the method selected, linking to the fieldwork experience undertaken, increasingly up through the band.</p> <p>Level 3 (11-12 marks) Mid-point 12 marks There is a detailed reference to both effectiveness and evaluation. There will be convincing reference to the candidate's own fieldwork experience. The candidate will be 'thinking like a geographer'.</p>	<p>(12 marks)</p>
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<p>3</p> <p>AO1-2 AO2-4 AO3-6</p>	<p>Notes for answers</p> <p>Any technique of analysis can be used, but the technique selected must be related to the investigation. The most likely are statistical tests, but the use of an alternative technique, if justified to show analysis, will be acceptable.</p> <p>The answer should assess how useful the technique was in analysing the data collected in this investigation.</p> <p>The use of diagrams or part-worked examples could be a suitable way of showing how the technique was used. The responses are likely to show how the type of data analysis is useful in interpreting the information. For example, an investigation with two related variables is likely to provide opportunity for the use of Spearman. Unpaired data sets may lend themselves to Mann Whitney or broad comparative data to Chi-squared.</p> <p>This is the opportunity to assess how far the technique was useful for analysing the data, e.g. whether the result was significant or not and what that would mean for the analysis of these data.</p> <p>Mark Scheme</p> <p>Level 1 (1-5 marks) Mid-point 3 marks Basic identification and description of a technique of analysis. There is no reference to how far the data was useful to analyse the information collected by the use of this analysis. No reference to the candidate's own fieldwork investigation. Basic attempt to assess.</p> <p>Level 2 (6-10 marks) Mid-point 8 marks Clear identification of a relevant technique of analysis. There is a clear understanding of the use of the technique and an attempt to assess how this was useful in analysing the data collected. There may be some reference to the results of the analysis. There is clear reference to the candidate's own fieldwork investigation. May make some reference to alternative techniques.</p> <p>Level 3 (11-12 marks) Mid-point 12 marks There is a detailed account of the usefulness of the technique of analysis, applied to this investigation. There is convincing reference to the candidate's own fieldwork. The results of the analyses are assessed in the light of data collected. The candidate is thinking like a geographer. May be detailed reference to alternative techniques.</p>	<p>(12 marks)</p>
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<p>4</p> <p>AO1-2 AO2-2 AO3-4</p>	<p>Notes for answers</p> <p>There will be a focus on how the experience of fieldwork in the investigation contributed to the development of the candidate's understanding of the topic investigated. The explanation can be focused in a number of ways, including reference to the conclusions/results and/or the underpinning theory set out in the aim(s). In addition, there may be reference to the candidate's own perspective with regard to the development of their own personal understanding of the topic. The experience of fieldwork and reference to the results/conclusions is expected, linking to the development of understanding of the topic.</p> <p>Mark Scheme</p> <p>Level 1 (1-4 marks) Mid-point 3 marks</p> <p>There will be a basic reference to the results and/or the experience of fieldwork, with little, if any, reference to the development of the understanding of the topic. The conclusions/results may be described in some detail, but the 'how' will be lacking. Theory may be present, but not linked to the development of understanding of the topic. There will be little evidence of the candidate's own fieldwork.</p> <p>Level 2 (5-8 marks) Mid-point 7 marks</p> <p>There will be a clear attempt to show how the experience of fieldwork has developed the candidate's understanding of the topic. The underpinning theory may also be linked to this understanding of the topic, but there may be some imbalance between the 'how' and understanding. There will be confident reference to the results/conclusions and clear reference to the candidate's own fieldwork.</p>	<p>(8 marks)</p>
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<p>5 (a)</p> <p>AO1-1 AO2-4 O3-3</p>	<p>Notes for answers</p> <p>There are two possible sources to be referenced out of four, one bar graph and one line graph. One approach would be to describe in turn the usefulness (strengths and weaknesses) of each selected resource in presenting these data to comment on the information shown. Other candidates may take a more directly comparative approach.</p> <p>General points</p> <p>Whether the need is to inform or to persuade, both of these types of graph are an efficient way to communicate because they can:</p> <ul style="list-style-type: none"> • illustrate trends not obvious in a table • make conclusions more striking • ensure maximum impact. <p>These graphs can be a great help not only in the presentation of information but as an aid in the analysis of data as well.</p> <p>Line graphs</p> <p>Line graphs are used to indicate a relationship between two variables, time being the most common single variable, recorded on the x- (horizontal) axis. The data is usually said to be continuous. Line graphs indicate trends over time; the focus is on the trend, not the actual values as the eye follows the line(s) from left to right. A line between successive points shows a trend over time.</p> <p>Comparative line graphs compare the trends over time between more than one variable.</p> <p>A compound (cumulative) line graph shows the components of a total set of values in a cumulative manner. The total line at the top of the graph is the sum of all of the component lines.</p>	<p>(8 marks)</p>
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	<p>Bar charts</p> <p>In bar charts, the bar height is a frequency or count. Bar charts are used to represent quantitative data, i.e. data in categories measured on nominal or ordinal scales, usually over time on the x-axis. Thus the focus is on the value, rather than the trend, as the eye focuses towards the top of the bar.</p> <p>Bar graphs show quantitative discrete data.</p> <p>Compound (divided) bars show the components making up the total bar.</p> <p>Divergence bars show the values away from a central axis, with zero or an index value as the basis.</p> <p>It is important that both types of graphs are uncluttered by not having too much information shown. Four variables may well be the maximum for this to be achieved.</p> <p>Mark scheme</p> <p>Level 1 (1-4 marks) Mid-point 3 marks</p> <p>There is a basic description of the two graphs chosen. One graph may be covered more strongly than the other, so there may be some imbalance. The usefulness (strengths and weaknesses) of the techniques in presenting these data will be limited or unbalanced. There will be little or no reference to detail on the graphs. One technique only or 2 bar or 2 line questions covered.</p> <p>Level 2 (5-8 marks) Mid-point 7 marks</p> <p>There will be a clear explanation of the usefulness of the two graphs selected. There may still be some imbalance between the coverage of the graphs. Reference will be made to detail on the graphs.</p>	
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<p>5 (b)</p> <p>AO1-1 AO2-4 AO3-7</p>	<p>Notes for answers</p> <p>There is a variety of presentational techniques and skills that are relevant here. This may include graphical and cartographic skills.</p> <p>The specification lists, other than line and bar graphs, scattergraphs, triangular graphs, kite and radial graphs, logarithmic scales and dispersion graphs. Pie charts and proportional divided circles are also listed.</p> <p>Cartographic skills listed are atlas maps, base maps, sketch maps, OS maps, located proportional symbol maps (squares, circles, semi-circles and bars), flow lines, desire lines and trip lines, town centre plans, choropleth, isoline and dot maps, weather maps, ICT skills.</p> <p>The answer may include reference to a number of the above techniques. It is likely that candidates will refer to the varying nature of the data to be presented and then go on to assess the value of having a variety of presentational skills and techniques to use to depict these data effectively in geography.</p> <p>Comment may include reference to the visual effectiveness of the graphs used and to the importance of having variety to keep interest alive. At least two techniques are expected. Line and bar graphs are excluded.</p> <p>Trade off breadth vs depth. There is a variety of approaches to this question.</p> <p>Mark Scheme</p> <p>Level 1 (1-5 marks) Mid-point 3 marks There is a basic description of techniques and what they can be used to show. One technique may be covered more strongly than others, so there may be some imbalance. There will be little reference to the value of the variety of techniques.</p> <p>Level 2 (6-10 marks) Mid-point 8 marks There will be a clear summary of at least two techniques, with an attempt at an assessment of the value of using a variety of techniques for presenting data in geography. This may be theoretical, rather than referring to examples and the links to geographical understanding. There may be greater knowledge shown on one technique than others, but a full range is not expected.</p> <p>Level 3 (11-12 marks) Mid-point 12 marks There will be a detailed summary of the value of a variety of techniques to show data in geography, including reference to relevant examples. There will be a detailed assessment of the link to presentation in geography. The candidate will demonstrate evidence of ‘thinking like a geographer’.</p>	<p>(12 marks)</p>
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