



General Certificate of Education

Geography 2030
Specification

GEO4A Geography Fieldwork
Investigation

Specimen Mark Scheme
2009 examination

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

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General Guidance for A Level Geography Assistant Examiners

Quality of Written Communication

As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communications 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.

Levels Marking - General Criteria

The following general criteria relate to knowledge, understanding and their critical application and the quality of written communication as outlined in the AQA Geography subject specification. They are designed to assist examiners in determining into which band the quality of response should be placed, and should be used when assessing the level of response an answer has achieved. It is anticipated that candidates' performances under the various dimensions will be broadly inter-related and the general guidelines for each level are as follows:

Level 1: An answer at this level is likely to:

- display a basic understanding of the topic;
- make one of two points without support of appropriate exemplification or application of principle;
- demonstrate a simplistic style of writing perhaps lacking close relation to the term 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: 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;
- 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: 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;
- 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.

N.B. A perfect answer is not usually required for full marks. Clearly, it will be possible for an individual candidate to demonstrate variable performance between the levels. In such cases the principle of best-fit should be applied. Experience suggests that the use of exemplars within this mark scheme and the discussion which takes place during the Standardisation Meeting normally provides sufficient guidance on the use of levels in marking.

Annotation of Scripts

- Where an answer is marked using a levels of response scheme the examiner should annotate the script with 'L1', 'L2' or 'L3' at the point where that level is thought to have been reached. The consequent mark should appear in the right hand column. Where an answer fails to achieve Level 1, zero marks should be given.
- Where answers do not require levels of response marking, each script should be annotated to show that one tick equals one mark. It is helpful if the tick can be positioned in the part of the answer which is thought to be credit-worthy. For points marked questions, where no credit-worthy points are made, zero marks should be given.

General Advice

It is important to recognise that many of the answers shown within this marking scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally credit-worthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

The aims of the investigation are expected to be set out clearly. This could be in the form of a statement of aims or the hypotheses under investigation. No credit is allocated for this statement.

Question 1

Notes for answers

- AO1 - 3** Two elements are required for the response; the location and its suitability for the investigation. Theory should be linked to the specification; hence, the location is expected to be suitable to investigate the aims and by implication, the theory.
- AO2 - 5**
- AO3 - 4**

Mark scheme

Level 1

1-4 marks

The candidate is unable to set out the aims in full; much confusion may be apparent at the lower end of the band.

Towards the upper end of the band, there may be background of relevance to the location, but not linked to the aims. Alternatively, the aims may be justified but there is limited reference to the location.

There will be little reference to the candidate's own fieldwork investigation at the upper end, whilst this will be absent at the lower end of the mark band.

Level 2

5-8 marks

There will be clear reference to both location and aims, 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, the imbalance will be less and there will be reference to the appropriateness of the location.

There will be some reference to the fieldwork undertaken, increasing up through the band.

Level 3

9-12 marks

There will be detailed reference to both location and aims and this will be consistently integrated to demonstrate the appropriateness of the location for the investigation.

There will be detailed and increasingly convincing reference to the fieldwork undertaken.

(12 marks)

Question 2

- (a)**
AO3 - 6 **Notes for answers**
 The method selected must relate to the investigation. Only one method is required. Any appropriate method is acceptable.

Mark scheme

Level 1 **1-3 marks**

There is likely to be a description of the method selected. This will be basic at the lower end, more structured at the upper end of the band. There will be no reference to the fieldwork undertaken at the lower end, with some, perhaps basic, reference at the upper end of the band. There will be little, if any, attempt to assess the usefulness of the method selected.

Level 2 **4-6 marks**

There will be a clear assessment of the usefulness of the method selected. There will be increasing rigour demonstrated. There will be increasingly clear and convincing reference to the fieldwork undertaken.

(6 marks)

- (b)**
AO1 - 2 **Notes for answers**
 Any relevant method can be used, but it must be that selected in (a).
AO2 - 4 Reference to strengths, limitations and a link to the aims of the
AO3 - 6 specific investigation is expected.

Mark scheme

Level 1 **1-4 marks**

There will be a basic awareness of strengths and limitations of the method selected. There is likely to be a strong focus on either strengths or limitations. There is likely to be a straightforward use of expression. Reference to any sampling used will be basic, if present. There will be basic reference to the aims of the investigation and the candidate's own fieldwork experience is unlikely to be mentioned.

Level 2 **5-8 marks**

There will be clear reference to both strengths and limitations, 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, the imbalance will be less and there will be clear reference to the aims of the investigation and the fieldwork experience undertaken, increasing up through the band. A clear reference to any sampling method used is expected.

Level 3 **9-12 marks**

There will be detailed reference to analyse both strengths and limitations and this will be consistently referenced to the aims of the investigation. A detailed commentary on the suitability of any sampling method used is expected.

There will be detailed and increasingly convincing reference to the fieldwork undertaken.

(12 marks)

Question 3**AO1 - 3 Notes for answers**

AO2 - 4 There will be reference to the aims and underpinning theory as set out in Question 1. Evaluation of the investigation as a whole is expected, in the light of the fieldwork experience.
AO3 - 3

Mark scheme**Level 1****1-4 marks**

There will be basic awareness of the conclusions gained from the investigation. There is likely to be a strong focus on the conclusions, rather than any evaluation. There is likely to be a straightforward use of expression. There will be a basic or no reference to the aims of the investigation and the underpinning geographical theory in the light of the candidate's own fieldwork experience.

Level 2**5-8 marks**

There will be clear reference to both the conclusions and evaluation of the investigation, but there is likely to be an imbalance. This will be more apparent at the lower end, perhaps with implicit links, whereas, at the upper end, the imbalance will be less and there will be clear reference to the aims of the investigation and the underpinning geographical theory. A clear reference to the fieldwork experience undertaken, increasing up through the band, is expected.

Level 3**9-10 marks**

There will be detailed reference to the conclusions and there will be a meaningful evaluative theme. This will be consistently referenced to the aims of the investigation and the underpinning geographical theory. There will be detailed and increasingly convincing reference to the fieldwork undertaken.

(10 marks)

Question 4

- (a)** **Notes for answers** **2 marks**
AO3 - 2 There is a general trend of house prices increasing from the town centre. There are only two sites out of sequence. Hence it could be argued that it is a valid hypothesis. However, the relationship is not totally clear-cut and needs to be tested to ascertain its significance. It may not be significant and hence the null hypothesis (that there is no relationship) may be appropriate.
- One mark for each appropriate statement as given above.
- (b)(i)** **Notes for answers** **3 marks**
AO2 - 3 The calculated value of +0.455 does not exceed the critical value of 0.5636 (1 mark) at the 95% level of significance. The null hypothesis should be accepted/the expected hypothesis rejected (1 mark). Recognition of the weak positive relationship (1 mark). No significant relationship between the two variables (1 mark).
AO3 - 3
- (b)(ii)** **Notes for answers** **3 marks**
The sample size, although small, would have been reliable if the Spearman's Rank Correlation test had been significant (1 mark). As there was only a weak correlation (1 mark), more data would have been needed to ensure reliability of the data (1 mark) before rejecting the hypothesis.

(c) Notes for answers:

AO1 - 2 Statistical techniques are used to interpret and analyse data
AO2 - 4 collected in fieldwork investigation. This enables the reliability of the
AO3 - 6 data to be ascertained in relation to sample size and the significance of the statistical techniques. The most commonly used are measures of central tendency and dispersion. In addition, Spearman's Rank Correlation Co-efficient, Chi Squared and Mann Whitney represent inferential and comparative tests. A hypothesis/ null hypothesis should be established in order to fully exploit the latter techniques. The result of the tests should be tested for significance against relevant tables or a t-test can be used. If the result exceeds the critical value at the 5% and/or 1% levels, the result is significant and the hypothesis can be accepted/null hypothesis rejected. This is a reliable result and can then be explained/justified in relation to the aims of the geographical investigation. If the result is not significant, the null hypothesis is accepted/ hypothesis rejected. In this case, geographical explanations should be sought to explain this. Examples of uses in Geography include the use of Spearman's rank to show the relationship between two variables, such as house prices and environmental quality; the use of chi-squared to analyse the spatial links between land use and soils/geology and the use of central tendency to show the spread of river flood data around the mean discharge value over a period of time. The skills and techniques can be used with presentational techniques to further develop geographical understanding (e.g. scatter graphs with Spearman rank). Geographical understanding can also be developed by evaluating how well the aims have been met, with statistical skills and techniques being used to show the reliability of the results. In addition, there is the opportunity to offer geographical explanations for the results in relation to the aims and to explore further development of the geographical themes. A self-critical analysis of the investigation as a whole is another means of development of geographical understanding.

Mark scheme

Level 1

There will be a basic awareness of the techniques available but there is likely to be a narrow range. The response will be limited, with a strong focus on description of the techniques, rather than their importance. There will be uncertainty about the links to geographical understanding.

1-4 marks

Level 2

There will be clear reference to the range of techniques, though there may still be some imbalance within the range. There will be increasing detail toward the upper end of the band and the relative importance (evaluation) of the techniques will be referenced.

5-8 marks

Level 3

There will be consistent, detailed reference to the range of techniques available. There will be consistent evidence of evaluative skills with regard to the importance of the techniques. The role in developing geographical understanding will be consistently referenced.

9-12 marks

(20 marks)