



GCE AS MARKING SCHEME

SUMMER 2018

**AS
GEOGRAPHY - COMPONENT 2
B110U20-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2018 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

Component 2: Changing Places

Mark Scheme

Guidance for Examiners

Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, as opposed to adopting an approach of penalising him / her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

The mark scheme for this component includes both point-based mark schemes and banded mark schemes.

Point-based mark schemes

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision should be made. Each creditworthy response should be ticked in red ink. Annotations must reflect the mark awarded for the question. The targeted assessment objective (AO) is also indicated.

Banded mark schemes

For questions with mark bands the mark scheme is in two parts.

The first part is advice on the indicative content that suggests the range of concepts, processes, scales and environments that may be included in the learner's answers. These can be used to assess the quality of the learner's response. This is followed by an assessment grid advising on bands and the associated marks that should be given in responses that demonstrate the qualities needed in the three AOs, AO1, AO2 and AO3, relevant to this component. The targeted AO(s) are also indicated, for example AO2.1c.

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied. This is done as a two stage process.

Assessment Objective	Strands	Elements
<p>AO1</p> <p>Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales.</p>	N/A	This AO is a single element.
<p>AO2</p> <p>Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues.</p>	N/A	1a - Apply knowledge and understanding in different contexts to analyse geographical information and issues.
		1b - Apply knowledge and understanding in different contexts to interpret geographical information and issues.
		1c - Apply knowledge and understanding in different contexts to evaluate geographical information and issues
<p>AO3</p> <p>Use a variety of relevant quantitative, qualitative and fieldwork skills to:</p> <ul style="list-style-type: none"> investigate geographical questions and issues interpret, analyse and evaluate data and evidence construct arguments and draw conclusions. 	1 - investigate geographical questions and issues	N/A
	2 - interpret, analyse and evaluate data and evidence	
	3 - construct arguments and draw conclusions	

Banded mark schemes Stage 1 – Deciding on the band

Beginning at the lowest band, examiners should look at the learner’s answer and check whether it matches the descriptor for that band. Examiners should look at the descriptor for that band and see if it matches the qualities shown in the learner’s answer. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a ‘best fit’ approach should be adopted to decide on the band and then the learner’s response should be used to decide on the mark within the band. For instance if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Banded mark schemes Stage 2 – Deciding on the mark

Once the band has been decided, examiners can then assign a mark. During standardising (marking conference), the qualities of each mark band will be discussed in detail. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

The mark scheme reflects the layout of the examination paper. Mark all questions in Section A, and Section B.

Be prepared to reward answers that give **valid and creditworthy** responses, especially if these do not fully reflect the 'indicative content' of the mark scheme.

Section A: Changing Places

1. (a) (i) Use Figures 1 and 2 to compare the ways in which Loch Lomond is represented.		AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Content: 2.1.6								
Award up to 2 marks for the development of any of the following points up to a maximum of 4 marks						4		4
<p>For full marks candidates should make explicit use of both Figures 1 and 2.</p> <p>Indicative content</p> <p>Figure 1 depicts an unspoiled environment from the time Turner was painting (<i>adaptation</i>). The area in Figure 2 acts as a base for watersports (bringing revenue into the area). Some of the activities in Figure 2 are more active / extreme than others (e.g. kite surfing compared to kayaking) hence area is represented as attracting a range of participants. Candidates might consider the role of time in use and therefore representation of Loch Lomond.</p> <p>Marking guidance:</p> <p>Maximum Band 2 for (detailed) description of each image.</p>								

Award the marks as follows:		
Band	Marks	
3	3-4	Detailed comparison of how Loch Lomond is represented in the images.
2	2	Clear comparison of how Loch Lomond is represented in the images.
1	1	Limited or implied comparison or isolated statements; largely descriptive.
	0	Response not creditworthy or not attempted.

<p>1. (a) (ii) Suggest one way in which the activities shown in Figure 2 could lead to conflict.</p> <p>Content: 2.1.7</p>	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
<p>Award up to 2 marks for the development of any of the following points up to a maximum of 2 marks; a simple point without development could be awarded one mark and two simple points: 2 marks.</p>			2				2
<p>Indicative content</p> <p>Different groups of people may have different viewpoints and perceptions of how remote areas should / should not be developed.</p> <p>Leisure enthusiasts may disagree with 'mixed use' as those engaged in e.g. canoeing will seek tranquillity whereas those participating in more active pursuits will potentially disturb the canoeists. Meanwhile those enjoying the tranquillity of the unspoilt environment (Turner) may want to leave the area completely undeveloped.</p> <p>Simple statements would be awarded a single mark.</p>							

1. (b) Examine the economic impacts of the growth of the quaternary industry. Content: 2.1.5	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
	7			3			10

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all the points for full marks.

AO1

AO1 content encompasses knowledge and understanding of the economic impacts of the quaternary industry, including:

- the development of knowledge economy clusters including education, research, culture / creative industries, digital / IT companies, science and biotechnology and the direct and indirect revenue that these bring to towns / cities / regions
- the economic impact of locational factors encouraging cluster growth including proximity to universities and research institutes, government support, planning regulations and infrastructure, all of which have an economic impact
- an awareness of the impacts of quaternary industry clusters on people and places including place making and marketing, demographic change and global connectivity
- inequality emerging between those areas which have attracted quaternary industry and those areas which are currently without quaternary industry (places)
- decline of some inner urban areas leading to changes necessary to accommodate thresholds for attracting (and maintaining) quaternary industry e.g. AMRC in Sheffield's Lower Don Valley
- clustering of quaternary industry in gentrified buildings depicting affluence and multiplier effect, thus changing identity of places (can be positive or negative) e.g. The Waterside, Bristol; Kings Cross, London, The Custard Factory, Birmingham; Sussex Innovation Centre, Brighton; Cambridge Science Park, Cambridge
- adaptation of local suppliers in response to changing economic structures
- increasing interdependence between places as retail and leisure habits shift to meet the needs of new population.
- changes to infrastructure and housing as local planners respond to the needs of the quaternary industry e.g. opening of new stations at Oxford Parkway station (adaptation).
- evidence of multiplier effect in areas with growing quaternary industry (e.g. shops and cafes to support office-based industry and suppliers e.g. laundry and food suppliers to support hospitality services).

AO2

Candidates demonstrate application of knowledge and understanding through an examination of the impacts some of which will have benefits for some and disadvantages for others both socially and economically.

- impacts will vary according to location as different parts of both urban and rural places will be affected by developments within quaternary sector.
- impacts vary according to different internal stakeholders: some players support any changes that generate employment; others exercise resistance. Some changes will widen existing inequalities for those excluded from the new opportunities arising from growth of quaternary sector.
- impacts vary according to different external stakeholders: the range of quaternary industries will welcome new opportunities to grow their brands; planners may welcome re-development plans.
- impacts may vary according to time and scale as recent growth of quaternary sector will be not yet be established and therefore the multiplier effect will be less far-reaching than in areas where the existing economy is more established and thus more sustainable.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (7 marks)	AO2.1c (3 marks)
Band	<i>Demonstrates knowledge and understanding of the economic impacts of the quaternary industry.</i>	<i>Applies knowledge and understanding to examine the impacts of the quaternary industry.</i>
3	<p>6-7 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding through the use of appropriate, accurate and well-developed examples.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the economic impacts of the quaternary industry (benefits and disadvantages).</p> <p>Well annotated sketches / diagrams / maps may be used and should be credited.</p>	<p>3 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the extent to which the quaternary industry has a (positive) impact on the economic environment of places.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the extent to which the quaternary industry threatens the economic environment of places.</p>
2	<p>3-5 marks</p> <p>Demonstrates accurate knowledge and understanding through the use of appropriate and well-developed examples.</p> <p>Demonstrates accurate knowledge and understanding of the economic impacts of the quaternary industry (benefits and disadvantages).</p> <p>Sketches / diagrams / maps may be used and should be credited.</p>	<p>2 marks</p> <p>Applies knowledge and understanding to produce a coherent but partial examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce coherent but partial examination of the extent to which the quaternary industry has a (positive) impact on the economic environment of places.</p> <p>Applies knowledge and understanding to produce a coherent but partial examination of the extent to which the quaternary industry threatens the economic environment of places.</p>
1	<p>1-2 marks</p> <p>Demonstrates limited knowledge and understanding through a limited number of undeveloped examples.</p> <p>Demonstrates limited knowledge and understanding of the economic impacts of the quaternary industry (benefits and disadvantages).</p> <p>Basic sketches / diagrams / maps may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to produce an examination with limited coherence and support from some evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the extent to which the quaternary industry has a (positive) impact on the economic environment of places.</p> <p>Limited application of knowledge and understanding to produce a limited examination of the extent to which the quaternary industry poses threat to the economic environment of places.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

2 (a) (i) Describe the pattern of economic growth of cities in England and Wales shown in Figure 3 . Content: 2.1.4	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					4		4

Indicative content

Growth cities generally in southern England.
Majority of growth cities concentrated to south-east of a line stretching from furthest easterly point of England (Norfolk) to east Wales (Cardiff).
There is a belt of cities with strong growth through the centre of England (Midlands).
There is one city in the south west (Plymouth) experiencing strong economic growth and one city in Wales.
Reserve one mark for the accurate use of data to support the answer.

Credit other valid points including recognition that cities such as Swansea & Hull are experiencing negative growth.

2. (a) (ii) Estimate the range in growth rates for cities in Scotland. Show your working. Skills: 2.10	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
t.b.c. once map size determined					2		2
<p>Smallest (Glasgow) = 0 Largest (Edinburgh) = 0.75 Range: Largest – smallest = 0.75 - 0 = 0.75</p> <p>1 mark for correctly identifying size of largest growth and size of smallest growth 1 mark for correct subtraction result.</p>							

2. (b) Outline one social change in urban places experiencing regeneration. Content: 2.1.3	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award up to 3 marks for the development of any of the following points:	3						3
<p>Rundown areas of the city are being gentrified in order to satisfy the housing needs of key demographic groups contributing to and / or benefitting from economic growth (e.g. Jericho, Oxford). New retail and leisure complexes / areas are developed for those experiencing enhanced incomes (e.g. Brighton Marina). There is an increasing gap in income between rich and poor causing increasing disparity in standards of living for city's residents (e.g. Reading and Southampton). Award up to 1 mark for clear, pertinent, locational detail.</p> <p>Marking guidance</p> <p>Credit other valid points not contained in the indicative content.</p>							

2. (c) To what extent have some rural communities managed continuity and change more successfully than others? Content: 2.1.7	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	7			8			15

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all the points for full marks.

AO1

AO1 content encompasses knowledge and understanding of how rural communities have managed the challenges of continuity and change. The countryside offers both opportunities and threats to continuity and change including:

- Issues related to change and inequality related to housing, transport and services (including Broadband) e.g. dial-up internet in parts of the Lake District having a negative impact on B&B owners, shortage of appropriate housing to meet the needs of elderly retirement population in Norfolk (adaptation, globalisation and sustainability)
- Challenges varying in time and scale associated with counter-urbanisation and second-home ownership e.g. Peak District's young adults unable to buy properties as these are increasingly being purchased either for wealthy residents from peripheral towns & cities (e.g. Manchester / Sheffield / Stoke) either to live in and commute or as second-homes (identity)
- Issues in areas which have been left marginalised by failed or absent regeneration and / or rebranding schemes (north Cornwall, rural Teesside) (sustainability)

AO2

Candidates demonstrate application of knowledge and understanding through an evaluation of the view that some rural communities have managed the challenges of continuity and change more successfully than others

- Success will vary according to location as different rural places will be affected by rates of demographic change (e.g. north Norfolk, Derbyshire Dales and west Dorset large increases in retirement community numbers).
- Success will vary according to different internal stakeholders: some players embrace any changes that generate employment and associated developments, others exercise resistance. Some changes will widen existing inequalities for those excluded from the new opportunities arising from change.
- Success will vary according to different external stakeholders: tourist boards amongst others will likely embrace changes as these will boost visitor numbers, conservationists may take an opposing view.
- Success may vary according to time and scale as designation of new National Parks will be less well-established and therefore multiplier effect will be less far-reaching than in areas where such designations are more established and thus more sustainable.
- Success can vary because some changes will cause thresholds to be crossed which will benefit certain groups but not others.

Marking guidance

A substantiated conclusion is expected in order to reach Band 3 (AO2).

Credit other valid approaches.

Award the marks as follows:		
	AO1 (7 marks)	AO2.1c (8 marks)
Band	<i>Demonstrates knowledge and understanding of how some rural communities have managed the challenges of continuity and change more successfully than others.</i>	<i>Applies knowledge and understanding to appraise / judge the extent to which some rural communities have managed the challenges of continuity and change more successfully than others.</i>
3	<p>6-7 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding through the use of appropriate, accurate and well-developed examples.</p> <p>Demonstrates detailed and accurate knowledge and understanding of how rural communities have managed the challenges of continuity and change more successfully than others.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the threats posed to management of successful continuity and change in rural communities.</p> <p>Well annotated sketches / diagrams / maps may be used and should be credited.</p>	<p>7-8 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent evaluation of the extent to which rural communities have managed the challenges of continuity and change more successfully than others</p> <p>Applies knowledge and understanding to produce a thorough and coherent evaluation of the extent of the threats posed to management of successful continuity and change in rural communities.</p> <p>A substantiated conclusion will be evident.</p>
2	<p>3-5 marks</p> <p>Demonstrates accurate knowledge and understanding through the use of appropriate and well-developed examples.</p> <p>Demonstrates accurate knowledge and understanding of how rural communities have managed the challenges of continuity and change more successfully than others.</p> <p>Demonstrates accurate knowledge and understanding of the threats posed to management of successful continuity and change in rural communities.</p> <p>Sketches / diagrams / maps may be used and should be credited.</p>	<p>4-6 marks</p> <p>Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by evidence.</p> <p>Applies knowledge and understanding to produce coherent but partial evaluation of the extent to which rural communities have managed the challenges of continuity and change more successfully than others.</p> <p>Applies knowledge and understanding to produce a coherent but partial evaluation of the extent of the threats posed to management of successful continuity and change in rural communities.</p>
1	<p>1-2 marks</p> <p>Demonstrates limited knowledge and understanding through a limited number of undeveloped examples.</p> <p>Demonstrates limited knowledge and understanding how rural communities have managed the challenges of continuity and change more successfully than others.</p> <p>Demonstrates limited knowledge and understanding of the threats posed to management of successful continuity and change in rural communities.</p> <p>Basic sketches / diagrams / maps may be used and should be credited.</p>	<p>1-3 marks</p> <p>Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence.</p> <p>Applies knowledge and understanding to produce a limited evaluation of the extent to which rural communities have managed the challenges of continuity and change more successfully than others.</p> <p>Limited application of knowledge and understanding to produce a limited evaluation of the extent of the threats posed to management of successful continuity and change in rural communities.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

Section B: Fieldwork Investigation in Physical and Human Geography

3. (a) Suggest how the students planned to investigate this hypothesis. Enquiry Question: 1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award up to 3 marks for the description and up to 3 marks for explanation to a maximum of 5 marks.	5						5
<p>Indicative content</p> <p>Candidates could be expected to describe and explain:</p> <ul style="list-style-type: none"> • Use of background literature to help formulate research investigation • Decisions related to data collection methodology and how to go about it • Selection of appropriate sampling technique • Use of previous investigations either in this area or on this topic • Use of local maps to assess the suitability of the area for A level geography research • The risk assessment approach and any ethical issues likely in this area. <p>Credit other valid suggestions of approaches to fieldwork investigations.</p>							

Award the marks as follows:		
Band	Marks	
3	4-5	Detailed knowledge and understanding of the planning stage of the enquiry process.
2	2-3	Clear knowledge and understanding of the planning stage of the enquiry process.
1	1	Limited knowledge and understanding of the planning stage of the enquiry process, isolated statement.
	0	Response not creditworthy or not attempted.

3. (b) (i) Justify an appropriate sampling technique for collecting the data about footpath cover. Enquiry Question: 1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for the suggestion of an appropriate technique and up to 2 marks for the development of any of the following points up to a maximum of 3 marks.					3		3
<p>Indicative content</p> <p>Candidates are expected to suggest that systematic sampling is the most appropriate because it can generate results that are representative of the whole population, i.e. length of footpath(s).</p> <p>Candidates may suggest why random and stratified techniques are not appropriate to this investigation.</p> <p>Credit other valid approaches suggested by the candidate.</p>							

3. (b) (ii) Suggest why the graph used in Figure 4 is a suitable way to present the data. Enquiry Question: 3	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award up to 3 marks for the development of any of the following points up to a maximum of 3 marks, alternatively candidates may offer two partially developed explanations.					3		3
<p>Indicative content</p> <ul style="list-style-type: none"> All three factors displayed on one graph enables ease of comparison Sets of these graphs could be located on a base map to enable spatial analysis Allow 1 mark for reference to the data displayed in Figure 4 (must have clear link for displaying this data) <p>Credit other valid points.</p>							

3. (b) (iii) Justify one alternative way to present the data used in Figure 4 . Enquiry Question: 3	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for an appropriate technique and up to 2 marks for the development of any of the justification.					3		3
<p>Indicative content</p> <ul style="list-style-type: none"> Compound bar graph would enable proportions of the three factors to be visible. Pie charts would also enable proportions to be clearly visible. Triangular graphs could be used as the data is in percentage form in three categories. Located compound bar or pie charts would enable the data to be displayed to show spatial variations. <p>Credit other valid points.</p>							

3. (c) The students included images in their investigation. Some took photographs on their smart phones and others drew field sketches. Suggest the advantages of each of these two techniques. Enquiry Questions: 3, 4 and 6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			3		3		6

Indicative content

AO3

Students are expected to show knowledge and understanding to give an accurate account of both techniques.

Photographs: positive characteristics

- Accurate representation of the footpath
- Photo editing software can be used to enhance, crop, label and annotate digital shots
- Photographs can be arranged around a map extract, field sketch or diagram as a visual presentation of certain features, areas or processes
- Taking photographs of the same place at different times of the day can show diurnal changes; they can also show longer-term / seasonal changes
- Apps are readily available for annotating photos.

Field sketches: positive characteristics

- Can use photography to compliment a field sketch. Photos can be used to add detail to the sketch later, which may compensate for lack of time or suitable conditions in the field can be used to emphasise a particular feature within a landscape and landscape and noting the relationships between elements of such landscapes
- Record field observations & measurements
- Give a summary of key structural & geological features
- Help analyses of photographs taken in the field
- Provide useful memory aids
- Field sketches can be annotated in the field

AO2

Candidates are expected to make suggestions about why each technique has advantages in this context. They could approach this by contrasting the two techniques.

Credit other valid approaches.

Award the marks as follows:		
	AO3 (3 marks)	AO2.1c (3 marks)
Band	<i>Shows knowledge and understanding of both geographical skills.</i>	<i>Applies (AO2.1c) to appraise / judge through evaluating the merits of two alternative techniques.</i>
3	3 marks Accurate account of the two techniques: sketching and photography.	3 marks Applies knowledge and understanding to produce a thorough and coherent evaluation with detailed rationale. Applies knowledge and understanding to produce a thorough and coherent evaluation of the two techniques, which shows consideration of the advantages of these techniques.
2	2 marks A partial account of the two techniques: sketching and photography.	2 marks Applies knowledge and understanding to produce a coherent but partial evaluation with appropriate rationale. Applies knowledge and understanding to produce a coherent but partial evaluation of the two techniques, which shows consideration of the advantages of these techniques.
1	1 mark Limited account of one or other of the techniques: sketching and photography.	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and rationale. Limited application of knowledge and understanding to evaluate the techniques.
	0 marks Response not creditworthy or not attempted.	0 marks Response not creditworthy or not attempted.

4. With reference to your fieldwork investigation in physical geography, justify the method(s) used to analyse your data.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Enquiry Question: 4				6	4		10

Indicative content

AO3

Candidates should refer to their chosen data analysis technique(s); they may refer to one or more techniques. It is likely that students will have used arithmetic and statistical techniques for data analysis. Those listed on the specification are:

- Percentages
- Fractions, proportions and ratios
- Measures of central tendency: mean, median, mode
- Measures of dispersion: range, inter-quartile range
- Measures of correlation: scatterplot with line of best fit, Spearman Rank
- Inferential statistics: Chi-square

Some students may have undertaken qualitative data analysis: describing patterns, trends and relationships.

AO2

Candidates should offer full justification of the techniques used. Within the Command Word Glossary, in order to fully justify a choice a candidate is required to 'go beyond knowledge and understanding to explain why the choice given is better than other possible options'. Many candidates will be drawn to evaluate their methods rather than fully justifying them.

Marking guidance

Credit other valid approaches.

Award the marks as follows:		
	AO3 (4 marks)	AO2.1c (6 marks)
Band	<i>Demonstrates knowledge and understanding of the use of data analysis techniques.</i>	<i>Applies (AO2.1c) to appraise / judge through justifying the choice of data analysis techniques.</i>
3	<p>3-4 marks</p> <p>Accurate detail relating to appropriately selected analysis technique(s) that could be used to analyse the data collected.</p>	<p>5-6 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent justification of the technique(s), supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent justification of the selection of the technique(s), which shows consideration of the advantages of the technique(s).</p>
2	<p>2 marks</p> <p>Partial detail relating to appropriately selected analysis technique(s) that could be used to analyse the data collected.</p>	<p>3-4 marks</p> <p>Applies knowledge and understanding to produce a coherent but partial justification, supported by some evidence.</p> <p>Applies knowledge and understanding to produce a coherent but partial justification of the selection of technique(s), which shows consideration of the advantages of the technique.</p>
1	<p>1 mark</p> <p>Limited detail relating to selected analysis technique(s) that could be used to analyse the data collected.</p>	<p>1-2 marks</p> <p>Applies knowledge and understanding to produce a justification with limited coherence and support from some evidence.</p> <p>Limited application of knowledge and understanding to justify the selection of technique(s).</p>
0	Response not creditworthy or not attempted.	Response not creditworthy or not attempted.

5. Evaluate the contribution of planning to your fieldwork investigation in human geography. Enquiry Questions: 1 and 6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
				6	4		10
Indicative content							
<p>AO3 The specification identifies the characteristics of Stage 1 (Planning) in the Enquiry Process as:</p> <ul style="list-style-type: none"> • Prepare to investigate a geographical question in the field; • Make and justify decisions on the task including data collection methods and how to use them; • Define and refine the research question(s) that underpin the context of the field investigation; • Risk and ethical issues <p>AO2 The command is to evaluate and therefore the candidate's answer should focus on an assessment/evaluation of the contribution made to their fieldwork by the planning process e.g. candidates could illustrate, referring to their own fieldwork and enquiry, where a thorough and successful planning stage led to more reliable data collection and outcomes.</p>							

Award the marks as follows:		
	AO3 (4 marks)	AO2.1c (6 marks)
Band	<i>Demonstrates understanding of the role of planning to the outcomes of geographical enquiry.</i>	<i>Applies (AO2.1c) to evaluate how planning contributed to the success of the enquiry.</i>
3	<p>3-4 marks</p> <p>Accurate understanding of at least one approach to planning for geographical enquiry.</p>	<p>5-6 marks</p> <p>Applies knowledge and understanding of the planning process and can assess how this contributes to geographical enquiry supported by evidence from the enquiry undertaken.</p> <p>Applies knowledge and understanding to produce a thorough and coherent evaluation of planning undertaken in preparation for human geography fieldwork.</p>
2	<p>2 marks</p> <p>A partial understanding of at least one approach to planning for geographical enquiry.</p>	<p>3-4 marks</p> <p>Applies knowledge and understanding of the planning process and can offer some assessment of how this contributes to geographical enquiry supported by some evidence from the enquiry undertaken.</p> <p>Applies knowledge and understanding to produce a coherent but partial evaluation of the planning process and how this contributes to enquiry in human geography.</p>
1	<p>1 mark</p> <p>Limited understanding of one approach to planning for geographical enquiry.</p>	<p>1-2 marks</p> <p>Applies knowledge and understanding of the planning process to produce an assessment with limited coherence and basic support from some evidence.</p> <p>Limited application of knowledge and understanding to produce a simple evaluation of the planning process and how this contributes to enquiry in human geography.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>