

INTERNATIONAL GCSE GEOGRAPHY

9230/3

Paper 3 Geographical and Fieldwork Skills

Mark scheme

November 2023

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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 Examiner.

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.

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Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Section A – Geographical skills

Question 1

Qu	Part	Marking guidance	Total marks
01	1	Which of the following is an example of qualitative data from a primary source? Shade one circle only. B Field sketch drawn at the site of a fieldwork enquiry	1 mark AO3=1

Qu	Part	Marking guidance	Total marks
01	2	Which of the following is not an example of analysing fieldwork data? Shade one circle only. C Producing a pie chart to show the different proportions of land use in an area that has been surveyed	1 mark AO3=1

Question 2

Qu	Part	Marking guidance	Total marks
02	1	Calculate the range of risk index values for the named countries shown in Figure 1. Range = 1.1	1 mark AO4=1

Qu	Part	Marking guidance	Total marks
02	2	Calculate the mean of risk index values for the named countries shown in Figure 1. Mean = 8.16	1 mark AO4=1

Qu	Part	Marking guidance	Total marks
02	3	Outline one primary effect of a tropical storm. For example: • people killed/loss of life (1) as a result of storm surges (1d) or from falling buildings/debris (1d) • people displaced/made homeless (1) as a result of homes/buildings being destroyed (1d) • buildings/power lines severely damaged (1) as a result of high/strong winds/heavy rainfall/flooding (1d) • electricity/power supplies cut off (1) due to damaged power lines (1d). • damage to property/materials (1) resulting from strong winds (1d) • flooding (1) resulting from heavy rainfall/storm surges (1d) • damage to/loss of crops (1) because of strong winds/floods (1d) • transport infrastructure (roads/rail/airports) damaged (1) due to strong winds and or heavy rain/flooding). (1d) Credit any other valid primary effect – 1 mark for effect and 1 mark for development to outline. 1 × 2 marks	2 marks AO2=2

Qu	Part	Marking guidance	Total marks
02	4	Calculate the total economic losses for the upper-middle income countries shown in Figure 2. 591.1 US\$ billions.	1 mark AO4=1

Qu	Part	Marking guidance	Total marks									
02	5	Describe the pattern of economic losses shown in Figure 2.	4 marks AO4=4									
		<table><tr><td>Level 2 (Clear)</td><td>3–4 marks</td><td>Provides a mostly accurate description with a clear element of pattern. Uses the data to describe a pattern based on losses incurred and location or nature (in terms of income) of country/territory</td></tr><tr><td>Level 1 (Basic)</td><td>1–2 marks</td><td>Provides a basic description of some elements of data shown in Figure 2 with limited use of pattern. Uses the data to provide only a piecemeal or basic description.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table>		Level 2 (Clear)	3–4 marks	Provides a mostly accurate description with a clear element of pattern. Uses the data to describe a pattern based on losses incurred and location or nature (in terms of income) of country/territory	Level 1 (Basic)	1–2 marks	Provides a basic description of some elements of data shown in Figure 2 with limited use of pattern. Uses the data to provide only a piecemeal or basic description.		0	No relevant content.
		Level 2 (Clear)		3–4 marks	Provides a mostly accurate description with a clear element of pattern. Uses the data to describe a pattern based on losses incurred and location or nature (in terms of income) of country/territory							
		Level 1 (Basic)		1–2 marks	Provides a basic description of some elements of data shown in Figure 2 with limited use of pattern. Uses the data to provide only a piecemeal or basic description.							
	0	No relevant content.										
Indicative content												
• The largest losses by far are in North America (USA plus Puerto Rico, which is a US territory) which account for more than all the losses in Asia. • Six of the top 10 countries experiencing greatest economic losses are higher income countries – though China (upper-middle income) and India (lower middle income) suffer greater economic loss than four of these HICs. • No countries in Africa, South America or Oceania feature in the top 10 countries experiencing greatest economic losses from natural disasters. • Credit a description of pattern that refers to the types of natural disaster responsible for the majority of economic losses. For example, the main cause of economic losses in the western hemisphere are storms; in Asia, floods are dominant; in Europe, a mixture of causes but generally lower losses.												
		Credit any other valid description that uses the data provided in a pattern.										

Question 3

Qu	Part	Marking guidance	Total marks				
03	1	Complete Figure 3 by plotting the value of manufacturing exports for Germany from the data shown below. <table><tr><th colspan="2">Value of manufacturing exports (US\$ billions) in 2020</th></tr><tr><td>Germany</td><td>1450</td></tr></table> Line graph in Figure 3 should be completed by drawing a straight line from the 2015 value to US\$ 1,450 billion on y axis in 2020. (1)	Value of manufacturing exports (US\$ billions) in 2020		Germany	1450	1 mark AO4=1
Value of manufacturing exports (US\$ billions) in 2020							
Germany	1450						

Qu	Part	Marking guidance	Total marks
03	2	Compare the change in value of manufacturing exports between China and Japan from 2000 to 2020 as shown in Figure 3. Award 1 mark for each accurate comparative fact stated. For example: - China has a faster rising rate of growth of manufacturing exports than Japan throughout the whole period from 2000 to 2020 (1) - value of manufacturing exports in Japan only increases slightly over the whole 20-year period (from US\$400 billion to US\$ 650 billion) whereas China's rises rapidly (1) from US\$250 billion to US\$2850 billion (1d) - Japan has a higher value of manufacturing exports than China in 2000 (1) with US \$400 billion compared to US\$ 250 billion (1d) - value of China's manufactured exports overtakes that of Japan by 2005 (1) when China = US\$850 billion and Japan = US\$625 billion (1d) - manufacturing export value falls in Japan from 2010 to 2015 but continues to rise rapidly in China. (1) Credit any other valid facts that are stated accurately and that have a linking word that compares. No credit for separate statements that are not comparative. 2 × 1 mark or 1 × 2 marks.	2 marks AO4=2

Qu	Part	Marking guidance	Total marks									
03	3	Suggest reasons for the different trends in manufacturing exports of the countries shown in Figure 3. Use the information in Table 1 to support your answer. <table><tr><td>Level 2 (Clear)</td><td>3–4 marks</td><td>Makes clear suggestions to explain possible trends in manufacturing exports of at least two countries. Uses the data provided in the line graph (Figure 3) and in Table 1 and makes links between the two sets of data.</td></tr><tr><td>Level 1 (Basic)</td><td>1–2 marks</td><td>Makes basic suggestions to explain possible trends in manufacturing exports of at least one country. Uses the data provided in either Table 1 or in the line graph (Figure 3) but any links between the two sets are basic, tenuous or not made at all.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> Indicative content • Average income in China is lower, meaning that it is cheaper to produce goods here making them competitively priced in global markets. • China’s economic structure means a greater proportion of its national income comes from manufacturing compared to other countries. • China’s share of global manufacturing at 28% is massive and nearly as much as the other 3 countries combined, therefore unsurprising that value of manufacturing exports has risen rapidly. • USA is a large country with the second highest share (17%) of global manufacturing but has higher average incomes. • The manufacturing sector in the USA contributes a lower percentage towards national income compared with the other countries. This suggests that other areas of the US economy are, or have become, more dominant which may explain the slowing down of manufacturing export values. • Germany has a similar higher average income to USA and shows a similar pattern to USA in manufacturing export trends. • Germany’s total share of global manufacturing is much lower (around one third) than the USA but more of Germany’s national income is provided by manufacturing (9% more than US). • Germany competes with the USA in terms of manufacturing export value, which means there is more focus on exporting goods from Germany; or alternatively the USA manufactures more for its home market. • Manufacturing in Germany and Japan is a similarly important part of the economic structure; their share of global manufacturing is also similar but average income is slightly lower in Japan.	Level 2 (Clear)	3–4 marks	Makes clear suggestions to explain possible trends in manufacturing exports of at least two countries. Uses the data provided in the line graph (Figure 3) and in Table 1 and makes links between the two sets of data.	Level 1 (Basic)	1–2 marks	Makes basic suggestions to explain possible trends in manufacturing exports of at least one country. Uses the data provided in either Table 1 or in the line graph (Figure 3) but any links between the two sets are basic, tenuous or not made at all.		0	No relevant content.	4 marks AO3=2 AO4=2
Level 2 (Clear)	3–4 marks	Makes clear suggestions to explain possible trends in manufacturing exports of at least two countries. Uses the data provided in the line graph (Figure 3) and in Table 1 and makes links between the two sets of data.										
Level 1 (Basic)	1–2 marks	Makes basic suggestions to explain possible trends in manufacturing exports of at least one country. Uses the data provided in either Table 1 or in the line graph (Figure 3) but any links between the two sets are basic, tenuous or not made at all.										
	0	No relevant content.										

		• While average income in Japan is lower than both Germany and US, it is still nearly three times higher than China's so manufactured goods will be relatively more expensive when competing with China. This may be one reason that China has been able to export much more at a lower price but giving an overall larger value of exported goods. • Changing industrial structure as economic development occurs is also a valid approach and there may be reference to development models (generally or specifically) that suggest manufacturing industry is more dominant in middle stages of development (e.g., stage 3 of DTM).	
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Qu	Part	Marking guidance	Total marks
03	4	Identify two ways that manufacturing can stimulate economic development. • Manufacturing creates employment for people in factories. • Manufacturing industry produces higher value goods than primary goods and resources, and so generates more foreign earnings and a better balance of trade. • People can earn higher incomes when working in manufacturing than in the primary sector and spend this on more goods and services – the 'multiplier' effect. • People earning more money means more tax revenue for the government, which they can spend developing better transport, energy or water infrastructure, healthcare and or education. • Population becomes better educated and earn more money. This can lead to a demand for improvements in services, including healthcare. • The population becomes more skilled with a diverse range of skills, so they become more adaptable to economic change and development. Credit any valid suggestions of how manufacturing industry helps to stimulate economic development (1 mark for each valid suggestion).	2 marks AO2=2

Section B – Fieldwork skills (unfamiliar contexts)

Question 4

Qu	Part	Marking guidance	Total marks		
04	1	Complete Figure 4 by plotting the information below. <table><tr><td>Number of pebbles with a long axis between 10 cm and 12 cm</td><td>7</td></tr></table> Histogram should be completed so that a full block from 10–12cm on the x axis is drawn and shaded to a height of 7 on the y axis. (1)	Number of pebbles with a long axis between 10 cm and 12 cm	7	1 mark AO4=1
Number of pebbles with a long axis between 10 cm and 12 cm	7				

Qu	Part	Marking guidance	Total marks
04	2	Identify the modal class for the data shown in Figure 4. Modal class is 6 cm to 8 cm. (1) No credit for giving the mode value of 14 within the class.	1 mark AO4=1

Qu	Part	Marking guidance	Total marks
04	3	Calculate the percentage of pebbles with a long axis between 2 cm and 8 cm. 24 pebbles fall in the size ranges between 2–8 cm out of 50 pebbles. Percentage = 48% (1)	1 mark AO4=1

Qu	Part	Marking guidance	Total marks
04	4	Draw a line of best fit on the scattergraph in Figure 5. Line of best fit should be drawn as a straight line from top left of the graph to bottom right, passing through the centre of the plotted points so that there is approximately an equal number of points on either side of the line. (1)	1 mark AO4=1

Qu	Part	Marking guidance	Total marks
04	5	Suggest two other pieces of data that the students could collect to improve their understanding of longshore drift. • Carry out a line transect across the width of the beach at two (or more) different locations (along direction of longshore drift) and check average size of pebbles at each location. (1) • Measure roundness of pebbles (using a roundness indicator) (1) at different locations as described above. • Measure the weight of the pebbles (1) to find out if lighter pebbles travel further. • Record direction of prevailing wind (1) (to check whether it approaches the coast at an angle). • Record direction of wave angle as it approaches the beach. (1) • Measure wave height and frequency (1) to check whether they are constructive waves that transport and deposit pebbles. • If groynes are present, then can measure build-up of material against one side of groyne compared to the other side. (1) Credit suggestions referring to collection of secondary data, providing it is qualified. For example, secondary data relating to prevailing wind direction (1) recorded over a period of time.	2 marks AO3=2

Qu	Part	Marking guidance	Total marks									
04	6	To what extent do the results of the students' data collection support their hypotheses? <table><tr><td>Level 2 (Clear)</td><td>3–4 marks</td><td>Provides a clear assessment of the available evidence to support one or more hypothesis or otherwise. Makes clear links between the data for direction of travel of pebbles and size in relation to distance travelled.</td></tr><tr><td>Level 1 (Basic)</td><td>1–2 marks</td><td>Offers only a basic assessment of support for one or more hypothesis with limited development. Limited or only basic links made between the data appearing in the scattergraph and either hypothesis.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> Indicative content • The random pebbles chosen provides a representative sample of the variation in sizes of pebbles found on the beach. • 66% of the pebbles moved from the start point in the direction that longshore drift was expected. However, 8% moved in the opposite direction and 26% were not found which may suggest the evidence is inconclusive. • There is a clear correlation and inverse/negative relationship between size of pebble in the sample and distance travelled. • There are a few anomalies in the relationship between size and distance, but they do not fall out of the main trend significantly. • The majority of the smaller pebbles found (5 out of 6 less than 4 cm) travelled over 2 m from the start point. Only 2 out of 14 larger pebbles (between 4 and 8 cm) travelled over 2 m. • Most of the largest pebbles (>8 cm) (11 out of 13) stayed within 1 m distance of the start point. • The evidence generally supports the hypothesis that longshore drift is occurring in one general direction as most pebbles are transported in that direction. • The evidence supporting the hypothesis that smaller pebbles are transported a further distance by longshore drift is clearer as the scattergraph shows.	Level 2 (Clear)	3–4 marks	Provides a clear assessment of the available evidence to support one or more hypothesis or otherwise. Makes clear links between the data for direction of travel of pebbles and size in relation to distance travelled.	Level 1 (Basic)	1–2 marks	Offers only a basic assessment of support for one or more hypothesis with limited development. Limited or only basic links made between the data appearing in the scattergraph and either hypothesis.		0	No relevant content.	4 marks AO3=2 AO4=2
Level 2 (Clear)	3–4 marks	Provides a clear assessment of the available evidence to support one or more hypothesis or otherwise. Makes clear links between the data for direction of travel of pebbles and size in relation to distance travelled.										
Level 1 (Basic)	1–2 marks	Offers only a basic assessment of support for one or more hypothesis with limited development. Limited or only basic links made between the data appearing in the scattergraph and either hypothesis.										
	0	No relevant content.										

Question 5

Qu	Part	Marking guidance	Total marks
05	1	Outline one sampling method the students could use to make sure they surveyed a representative sample of the local population. Any valid sampling method can be described/outlined – 1 mark for naming the method (1) 1 mark for describing/outlining how it would be undertaken. (1d) For example: • random sampling (1) where the survey is given to people selected randomly so that every person available has an equal chance of being selected (1d) • convenience sampling (1) – selecting people who are easy to reach and talk to in a particular place/time (1d) • systematic sampling (1) by giving the survey to every nth person passing (1d) • stratified sampling (1) by deliberately selecting samples of certain types of people (e.g., based on age and/or gender) to represent the local population (1d) • quota sampling (1) – could be linked to stratified by deliberately selecting a proportionate number from each part of the population. (1d) 1 × 2 marks	2 marks AO3=2

Qu	Part	Marking guidance	Total marks
05	2	Suggest one other aspect of local peoples' lives that could have been included in the survey shown in Figure 6. • Culture/cultural identity (1) • Health or medical care (1) • Transport infrastructure (1) • Energy supply (1) • Education/learning (1)	1 mark AO3=1

Qu	Part	Marking guidance	Total marks
05	3	Outline one disadvantage of using the survey method shown in Figure 6 to collect data. • The survey is very subjective (1) and it will be heavily influenced by larger +/- scores given by individuals (1d) – perhaps with strong feelings or experiences about the issue. (1d) • The scoring itself is subjective (1) and gives no real indication of what each + or - value represents in terms of impacts. (1d) • It will be difficult to get a representative sample of the population (1) or enough people who have been impacted at all by the resort. (1d) • There is no neutral or (0) score for those who have not been impacted at all (1) so they could just score +/- on basis of how that particular aspect of life is at the time (1d) that may be affected by other factors. (1d) • It is a snapshot survey taken at a particular time (1) and doesn't consider how the resort may develop and impact on people's lives over a longer period of time. (1d)	2 marks AO3=2

Qu	Part	Marking guidance	Total marks		
05	4	Complete Figure 7 by drawing the bar for the average positive score for food supply from the information below. <table><tr><td>Average positive score for food supply/diet</td><td>+2.1</td></tr></table> Bar should be drawn on positive side of ‘Food supply/diet’ aspect on x axis to a value of 2.1. (1)	Average positive score for food supply/diet	+2.1	1 mark AO4=1
Average positive score for food supply/diet	+2.1				

Qu	Part	Marking guidance	Total marks									
05	5	Suggest what conclusions the students can draw from their investigation into the impact of the resort on the lives of local people. Use the information from Figure 7 and Figure 8 to support your answer. <table><tr><td>Level 2 (Clear)</td><td>3–4 marks</td><td>Suggests clear and valid conclusions based on the evidence of the primary and secondary data collected by the students. Makes clear links between the primary data presented from the survey (Figure 7) and the secondary information collected in Figure 8.</td></tr><tr><td>Level 1 (Basic)</td><td>1–2 marks</td><td>Suggests some basic conclusions, possibly in a more piecemeal way, drawn from the primary data presented from the survey and/or from the secondary data collected. Links made between the two sets of data are limited, tentative or not made at all.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> Indicative content • On balance, impacts on income and work opportunities are considered to be positive (Figure 7). This could be because the resort provides work opportunities as 65% of employees are local (Figure 8); wages may be higher than they could otherwise earn. • On the other hand, a significant minority feel that their income and work opportunities are reduced (Figure 7). This may be because the resort has replaced existing places of work (farms/plantations) where locals once worked and so they have become unemployed. • Overall improvements in income and work opportunities seem to have come at a cost in terms of how the resort has impacted on water supply, which is perceived quite negatively (Figure 7) and this may be because large amounts of local water resources are diverted to meet the demands of the resort, e.g., for swimming pools, gardens, spas, golf course etc. • Impacts on food supply are perceived as being negative, though this aspect is more balanced (Figure 7). It might be that food supply has improved as some food (Figure 8) brought in to supply the resort trickles down to locals, as more is grown on larger local farms and plantations. • However, local food supply might be compromised as more is grown for the resort reducing supplies for locals (Figure 8) and demands on water will impact negatively on irrigation. • The most negative aspect of life is the impact on the natural environment (Figure 7). The link to Figure 8 here is less clear but the creation of the resort and associated facilities has meant clearance of land, natural ecosystems and wildlife.	Level 2 (Clear)	3–4 marks	Suggests clear and valid conclusions based on the evidence of the primary and secondary data collected by the students. Makes clear links between the primary data presented from the survey (Figure 7) and the secondary information collected in Figure 8.	Level 1 (Basic)	1–2 marks	Suggests some basic conclusions, possibly in a more piecemeal way, drawn from the primary data presented from the survey and/or from the secondary data collected. Links made between the two sets of data are limited, tentative or not made at all.		0	No relevant content.	4 marks AO3=2 AO4=2
Level 2 (Clear)	3–4 marks	Suggests clear and valid conclusions based on the evidence of the primary and secondary data collected by the students. Makes clear links between the primary data presented from the survey (Figure 7) and the secondary information collected in Figure 8.										
Level 1 (Basic)	1–2 marks	Suggests some basic conclusions, possibly in a more piecemeal way, drawn from the primary data presented from the survey and/or from the secondary data collected. Links made between the two sets of data are limited, tentative or not made at all.										
	0	No relevant content.										

		• Tourism is an important and successful part of the economic development of Tanzania and may improve living standards for locals but possibly at a cost to quality of life. Without reference to either set of data, responses suggesting valid conclusions should be capped at Level 1 maximum.	
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Section C – Individual fieldwork enquiry

State the title of your geography fieldwork enquiry

Candidates should state the title of their individual fieldwork enquiry as specifically as possible, including the aim (question being addressed or hypothesis to be tested) and, where appropriate, the location being studied.

Question 6

Qu	Part	Marking guidance	Total marks
06	1	Suggest why your question or hypothesis was suitable for the topic you investigated. The question or hypothesis stated will depend on the nature of the individual enquiry but should be linked to their fieldwork enquiry (title). Candidates should provide a clear statement that outlines the purpose of their investigation (1) and why, for the chosen topic, this was a suitable question to address/hypothesis to test. (1d) For example: - the aim of the enquiry was to investigate the characteristics of a small stream (1) to establish whether the velocity increased with increasing distance downstream (1) - the aim of the enquiry was to investigate whether the environmental quality of (named urban area) (1) improved with increasing distance from the central business district (1) - we aimed to address the question 'how are farming practices in location X being changed (1) in order to adapt to new technologies/global climate change (1) - our enquiry was to test the hypothesis that groynes provide an effective defence (1) to the problems caused by longshore drift on the (named location) coast. (1) Credit any other valid aim that is developed fully to investigate a specifically stated question or test a hypothesis.	2 marks AO3=2

Qu	Part	Marking guidance	Total marks
06	2	Outline one advantage of the location chosen for your enquiry. Advantages of a specific location will depend on the nature of the enquiry, but the named advantage should be developed fully to give at least one reason why it was advantageous. For example: - the location was close to our school/college (1) so we could get there easily/cheaply (1d) or so we could spend more time collecting data than travelling (1d) - as we were investigating channel characteristics, the locations chosen on the stream were easily accessible (1) and shallow (1) so they would be safe (1d) - the area chosen was suitable for our environmental quality survey as we knew the area well (1) and were aware of underlying differences in environmental quality (1d) and/or so we would not get lost (1d) - the farming area was chosen because we had already collected secondary data on the area (1) and so could compare this with the new primary data that we were collecting. (1d) Credit any other valid advantages and development if relevant.	2 marks AO3=2

Qu	Part	Marking guidance			Total marks
06	3	Explain why the data you collected was appropriate for your enquiry.			4 marks AO3=4
		Level 2 (Clear)	3–4 marks	Refers clearly to the nature of at least one type of data collected as part of the explanation or justification. Provides a clear explanation/justification why this data was appropriate or useful in supporting the aim of the enquiry.	
		Level 1 (Basic)	1–2 marks	A basic description of the data collected with limited appreciation of why it was useful or appropriate to the enquiry. Provides only a basic or tentative explanation of why the data collected was useful in supporting the aim of the enquiry, with limited development.	
			0	No relevant content.	
		Indicative content The explanation/justification will depend on the nature of the data collected and the specific aim(s) of the enquiry. It can refer to any data that was collected, primary or secondary, quantitative or qualitative. The key factor is that the data they use in the responses is linked to the purpose of the enquiry. For example: - collecting measurements of stream velocity at different points along a stream would be appropriate data collect when investigating stream characteristics; similarly measuring depth and width down the flow of the river when investigating channel characteristics. - carrying out environmental quality surveys using quantitative methods based on qualitative values would be appropriate on EQA surveys across urban transects so that the same information collected at different points can be compared. - using a combination of historical secondary data and comparing with primary data on current farming practices would be entirely justified in order to identify changes over time. - collecting data on the build-up of beach material on one side of a groyne compared to the other side would be an appropriate way of measuring the effectiveness of groynes as a sea defence against longshore drift, as would measuring width of beaches or collecting information of different rates of erosion along the coast. - collecting census data as secondary data combined with primary interviews or questionnaires about different aspects of life would be an appropriate way of comparing differences or inequalities in living standards between two different parts of the same urban area. Credit any valid explanation of why data that was collected was appropriate to the nature of the enquiry given in the title of the enquiry.			

Qu	Part	Marking guidance	Total marks												
06	4	Discuss the strengths and weaknesses of the data collection method(s) used in your enquiry.	6 marks AO3=6												
		<table><tr><td>Level 3 (Detailed)</td><td>5–6 marks</td><td>Offers a detailed and coherent account of the method(s) used to collect data for the enquiry. Provides reasonable balance in a discussion that identifies both strengths and weaknesses of the method(s) used to collect at least one set of data.</td></tr><tr><td>Level 2 (Clear)</td><td>3–4 marks</td><td>Offers some clarity in outlining the methods used to collect data for the enquiry. Provides a clear discussion that pitches strength of the methods against the weaknesses. ie There may be considerable imbalance in the arguments.</td></tr><tr><td>Level 1 (Basic)</td><td>1–2 marks</td><td>Only a basic or limited description of the data collection methods used in the enquiry. Random and simple discussion points that identify some strength(s) and/or weakness(es) in the methods used.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table>		Level 3 (Detailed)	5–6 marks	Offers a detailed and coherent account of the method(s) used to collect data for the enquiry. Provides reasonable balance in a discussion that identifies both strengths and weaknesses of the method(s) used to collect at least one set of data.	Level 2 (Clear)	3–4 marks	Offers some clarity in outlining the methods used to collect data for the enquiry. Provides a clear discussion that pitches strength of the methods against the weaknesses. ie There may be considerable imbalance in the arguments.	Level 1 (Basic)	1–2 marks	Only a basic or limited description of the data collection methods used in the enquiry. Random and simple discussion points that identify some strength(s) and/or weakness(es) in the methods used.		0	No relevant content.
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				0	No relevant content.										
		Indicative content													
		The data collection methods discussed will depend on the nature of the enquiry itself as well as on the type of data collected.													
		Candidates may refer to sampling strategies as well as actual collection methods in their response to this question.													
		When discussing the data collection methods, the focus should be on the methods used rather than the actual nature of the data itself though the two will obviously be linked.													
• Strengths can refer to the appropriateness of the sampling strategy or method(s) used in the given circumstances, location, limited availability of time etc. • Strengths may also refer to the reliability, accuracy or consistency of (measuring) methods used, e.g., that minimised individual errors or misunderstandings when collecting data. • Mention may also be made of the strengths or weaknesses of any tools or equipment that were used when collecting data. • Weaknesses may refer to the likelihood of individual human error in measuring or recording data, e.g., double counting in pedestrian or traffic counts etc. • It is feasible and creditworthy to suggest that a weakness in the methods meant that insufficient data was collected but this should relate to inefficiency in the method rather than the time available, which could have been used more productively.															

		• Another weakness that could be identified is any inappropriate sampling strategy employed to collect data, which may have been unintentionally biased or did not deliver a representative sample. Although a discussion is expected, the underlying notion here is that a specific element of the enquiry (data collection methods) is being evaluated in strand 6 – ‘Evaluation of geographical enquiry’.	
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Qu	Part	Marking guidance			Total marks
06	5	Explain how your results allowed you to reach valid conclusions.			
		Level 3 (Detailed)	5–6 marks	Provides a detailed narrative of the outcomes or results of their enquiry, including any anomalous findings. Makes a detailed link(s) between the results and the final conclusions that were drawn from the enquiry.	
		Level 2 (Clear)	3–4 marks	Makes clear reference to the outcomes or results of their enquiry; may refer to any anomalies in these findings. Provides some clear link between the results and the main conclusions drawn in answering the question/testing the hypothesis.	
		Level 1 (Basic)	1–2 marks	Presents only a basic or sketchy outline of the results of their enquiry. Provides only a limited link between the results of their enquiry and the conclusions drawn, which may be basic.	
			0	No relevant content.	
		Indicative content The focus should be on candidates referring to the results/outcomes of their enquiry and understanding what they mean in terms of drawing valid conclusion(s) in line with the initial aim of the investigation. For example: - different velocity measurements, possibly given in detail at different points on the stream, may confirm that velocity does increase with increasing distance downstream; there may be anomalous measurements, which may need further explanation. - results of environmental quality surveys, possibly given in detail and broken down in parts, may enable students to draw valid conclusions that environmental quality does improve with increasing distance from CBD; there may be anomalies that need further explanation. - as a result of land use surveys undertaken (details to be given) and interviews with local farmers explaining how they are adapting their practices, students may be able to draw valid conclusions that farming methods are adapting to new technologies (or climate change) by planting/harvesting at different times (earlier/later), may be growing different crops on different parcels of land, or using different seed strains etc.			
			6 marks AO3=6		

		• results indicated that beach material on one side of the groyne reached (eg, 2.5 metres) while on the other side only (eg, 0.60 metres). From beach profiles it is clear that the groynes trap much of the beach material preventing excessive longshore drift along the coast. Beach width and height measurements may also enable students to conclude that the groynes operate effectively in protecting part of the coastline but starve beaches elsewhere. Credit is essentially rewarded for providing as much detail as possible on the validity of the results of data collection, presentation and analysis and linking this to the main conclusions that address the aims of the enquiry.	
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