
GCSE Geography

8035/3 Paper 3 Geographical applications

Mark scheme

8035

Sample set (2021 exams only)

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

Point marked questions marking instructions

The mark scheme will state the correct answer or a range of possible answers, although these may not be exhaustive. It may indicate how a second mark is awarded for a second point or developed idea. It may give an indication of unacceptable answers. Each mark should be shown by placing a tick where credit is given. The number of ticks must equal the mark awarded. Do not use crosses to indicate answers that are incorrect.

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor is linked to the Assessment Objective(s) being addressed. The descriptor for the level shows the average performance for the 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. You should read the whole answer before awarding marks on levels response questions.

Step 1 Determine a level

Descriptors for the level indicate the different qualities that might be seen in the student's answer for that level. 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 2 with a small amount of Level 3 material it would be placed in Level 2 but be awarded a mark near the top of the level because of the Level 3 content. For instance, in a 9 mark question with three levels of response, an answer may demonstrate thorough knowledge and understanding (AO1 and AO2) but fail to respond to command words such as assess or evaluate (AO3). The script could still access Level 2 marks. Note that the mark scheme is not progressive in the sense that students don't have to fulfil all the requirements of Level 1 in order to access Level 2.

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 also help. There will generally 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.

Assessment of spelling, punctuation, grammar and use of specialist terminology (SPaG)

Accuracy of spelling, punctuation, grammar and the use of specialist terminology will be assessed via the indicated 9 mark questions. In each of these questions, three marks are allocated for SPaG as follows:

- **High performance** – 3 marks
- **Intermediate performance** – 2 marks
- **Threshold performance** – 1 mark

General guidance

- Mark schemes should be applied positively. Examiners should look for qualities to reward rather than faults to penalise. They are looking to find credit in each response they mark. Unless the mark scheme specifically states, candidates must never lose marks for incorrect answers.
- The full range of marks should be used. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted
- Crossed out work should be marked unless the candidate has replaced it with an alternative response.
- Do NOT add ticks to level-marked questions – use the highlight tool/brackets to signify what is relevant.
- Sometimes there are specific “triggers” in the mark scheme that enable higher level marks to be awarded. For instance, an example or case study may be required for Level 3 if it is stated within the question.
- Where a source, such as a photograph or map, is provided as a stimulus it should be used if requested in the question, but credit can often be given for inferred as well as direct use of the source.
- Always be consistent – accept the guidelines given in the mark scheme and apply them to every script
- If necessary make comments to support the level awarded and to help clarify a decision you have made
- Examiners should revisit standardise script answers as they apply the mark scheme in order to confirm that the level and the mark allocated is appropriate to the response provided.
- Mark all answers written on the examination paper.

Description of annotations

Annotation	Meaning/Use
?	Unclear
[	Left square bracket
]	Right square bracket
^	Omission mark
AO1	Assessment Objective 1
AO2	Assessment Objective 2
AO3	Assessment Objective 3
L1	Level 1
L2	Level 2
L3	Level 3
DP	Developed point
DEV	Development
EG	Example / reference
EVAL	Evaluation
HLINE	Horizontal Line
JUST	Level or point just awarded
MAX	Max
Vertical Wavy Line	Not relevant
NC	Nothing Creditworthy
NAQ	Not answered the question
REP	Repeat
SEEN	Reviewed but no marks awarded
Tick	Correct point
TV	Too vague
Highlight	Highlight Box
On Page comment	On Page Comment
Off Page Comment	Off page Comment

Section A : Issue evaluation

Qu	Pt	Marking Guidance	Total marks
01	1	Which of the following cities has the highest annual rainfall? B: Glasgow 1 mark for correct answer. No mark if more than one answer selected. AO4 = 1 mark	1
01	2	Give two effects of water stress. Any two reasonable ideas, expressed as an “effect”. Examples might include: • water supply/shortage issues • may lead to rationing • reducing water table affects aquifers • too much water removed from rivers affects flow • hosepipe bans makes outside water use difficult • increase in the price of water • effects on vegetation in gardens • problems for farming/growing crops/food shortages/increasing food prices • effects on angling/fishing • effects on sailing/recreational activities • problems for industrial production/loss of output/jobs • falling levels in reservoirs affects energy supply • need for increasing levels of water management to ensure adequate supply • damage to environment • health issues • over-extraction of water AO2 = 2 marks	2

01	3	‘Water transfer schemes will be essential to meet the growing demand for water in the UK.’ Do you agree? Explain your answer. <table><tr><th>Level</th><th>Marks</th><th>Description</th></tr><tr><td>3 (Detailed)</td><td>5–6</td><td>AO2 Demonstrates a detailed understanding of the challenges of managing the growing demand for water and the different strategies that might be used in order to respond to the growing demand for water. AO3 – Demonstrates detailed application of understanding in evaluating the importance of water transfer schemes.</td></tr><tr><td>2 (Clear)</td><td>3–4</td><td>AO2 – Demonstrates a clear understanding of the challenges of managing the growing demand for water and/or the different strategies that might be used in order to respond to the growing demand for water. AO3 – Demonstrates reasonable application of understanding in evaluating the importance of water transfer schemes.</td></tr><tr><td>1 (Basic)</td><td>1–2</td><td>AO2 – Demonstrates a limited understanding of the challenges of managing the growing demand for water AO3 – Demonstrates limited application of understanding in evaluating the importance of water transfer schemes.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> • Level 3 (detailed) understanding of the debate with evaluative observations which identify precisely why there may be a need for water transfer schemes and a broad appreciation of alternative strategies to ensure adequate supply. • Level 2 (clear) understanding of debate which identifies that there will be a need to manage future supply/demand with some evaluation of the need for water transfer schemes and/or some appreciation of the alternative strategies to ensure adequate supply. • Level 1 (basic) understanding of the need for future management with some reasoning which offers limited reflective observations. No real appreciation of rainfall patterns and demand factors or alternative management strategies. May simply agree/disagree with the statement and make basic points to support the chosen view. <u>Indicative content</u> • The precipitation map shows clearly that there are considerable variations in amounts of precipitation across the UK • The major settlements identified on the map suggest that there may be an imbalance between supply and demand	Level	Marks	Description	3 (Detailed)	5–6	AO2 Demonstrates a detailed understanding of the challenges of managing the growing demand for water and the different strategies that might be used in order to respond to the growing demand for water. AO3 – Demonstrates detailed application of understanding in evaluating the importance of water transfer schemes.	2 (Clear)	3–4	AO2 – Demonstrates a clear understanding of the challenges of managing the growing demand for water and/or the different strategies that might be used in order to respond to the growing demand for water. AO3 – Demonstrates reasonable application of understanding in evaluating the importance of water transfer schemes.	1 (Basic)	1–2	AO2 – Demonstrates a limited understanding of the challenges of managing the growing demand for water AO3 – Demonstrates limited application of understanding in evaluating the importance of water transfer schemes.		0	No relevant content.	6 +3 SPaG
Level	Marks	Description																
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	0	No relevant content.																

		• There are also additional physical factors that might be considered, such as types/patterns of rainfall and the effect of geology on storage and the importance of aquifers • In addition to total rainfall amounts the consideration of seasonality is of fundamental importance in relation to the management of water supply • Part of the debate is the legal obligation that water companies have to ensure adequate supply and quality • Broader aspects might include observations about how agricultural/industrial demand may be in areas of lowest rainfall • There are a number of demand based factors identified in the resource, including population/housing growth and increasing demand created by growing levels of wealth • Aspects of changing climate are considered, especially in relation to the reliability of rainfall/ there is an element of “the unknown” suggested here • There are clearly different potential strategies for managing water supply, including water transfer schemes/recharge/storage and also reducing waste and conservation • There is a clear suggestion that satisfying the likely future demand will not be easily possible without some form of transfer/storage AO2 = 3 marks, AO3 = 3 marks Spelling, punctuation and grammar (SPaG) High performance • Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate Intermediate performance • Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate Threshold performance • Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall • Learners use a limited range of specialist terms as appropriate No marks awarded • The learner writes nothing • The learner’s response does not relate to the question The learner’s achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.	3 2 1 0
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01	4	Suggest why water companies need 25 year plans. <table><tr><th>Level</th><th>Marks</th><th>Description</th></tr><tr><td>3 (Detailed)</td><td>5–6</td><td> AO3 – Demonstrates detailed evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information effectively to identify the factors that need to be considered in relation to long term planning. </td></tr><tr><td>2 (Clear)</td><td>3–4</td><td> AO3 – Demonstrates a clear evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information to identify some of the factors that need to be considered in relation to long term planning. </td></tr><tr><td>1 (Basic)</td><td>1–2</td><td> AO3 – Demonstrates a basic evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information in a limited way to identify demand factors and tentatively link this to the need for planning. </td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> • Level 3 (Detailed) reference to resource(s) to identify and evaluate the needs for 25 year plans with an appreciation of both supply and demand factors. This includes an understanding that developing supply infrastructure requires planning/time and involves a range of factors. • Level 2 (Clear) reference to resource(s) to identify and evaluate the needs for 25 year plans with an appreciation of either supply OR demand factors OR some reference to both. Answer may lack balance. • Level 1 (Basic) reference to resource(s) which identify and offer some tentative (evaluative) observations about the need for 25 year plans. May be largely copied points with limited development. <u>Indicative content</u> • Water companies have a legal obligation to ensure both quantity and quality of supply. • Past evidence is used to consider both likely supply and demand in the future. • The idea of a 25 year plan clearly suggests that there is a longer term strategy which will reduce the likelihood of shortages. • There are also long term development/planning strategies in relation to housing/industrial/recreational development and since these factors will reflect on the demand for water they need to be considered together. • Satisfying future water demand will require considerable engineering challenges and this will require companies to consider a range of	Level	Marks	Description	3 (Detailed)	5–6	AO3 – Demonstrates detailed evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information effectively to identify the factors that need to be considered in relation to long term planning.	2 (Clear)	3–4	AO3 – Demonstrates a clear evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information to identify some of the factors that need to be considered in relation to long term planning.	1 (Basic)	1–2	AO3 – Demonstrates a basic evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information in a limited way to identify demand factors and tentatively link this to the need for planning.		0	No relevant content.	6
Level	Marks	Description																
3 (Detailed)	5–6	AO3 – Demonstrates detailed evaluation of the reasons why water companies need long term plans in order to manage future demands. AO3 – Analyses the information effectively to identify the factors that need to be considered in relation to long term planning.																
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	0	No relevant content.																

		factors, including planning issues/environmental assessments/development and building. All of these phases of development will take time so there is a need for long term planning. Long term planning is required in order to use resources effectively (the “white elephant” syndrome). AO3 = 6	
02	1	What is the approximate area of the proposed reservoir as shown on the Ordnance Survey (OS) map extract? B: 6 km² 1 mark for correct identification. No mark if more than one answer selected. AO4 = 1 mark	1
02	2	Describe the relief of the land in the area of the proposed reservoir. 2x1 marks for 2 identified points OR 2 marks for a developed idea. 1 mark for a single identified observation which describes or implies a description; - It is flat/relatively flat(1) - It is low-lying - The spot heights are all about 60m (1) - There are few/no contour lines/contour lines are far apart(1) 2 marks for a developed point - There are few/no contour lines (1), showing that the land is relatively flat.(d) (1) AO4 = 2 marks	2
02	3	Give one reason why clay is a suitable material on which to build a reservoir. Any idea which suggests/implies that clay will restrict percolation or reduce the need for engineering strategies in order to reduce water loss. - It is impermeable/does not easily allow water to pass through it/waterproof - There will be less water loss/clay holds water more effectively - There will be less need to line the reservoir - It is easily dug up AO2 = 1 mark	1

03	1	‘The physical environment provides opportunities for a range of socio-economic activities.’ Use Figure 2 and Figure 3 to discuss this statement. <table><tr><th>Level</th><th>Marks</th><th>Description</th></tr><tr><td>3 (Detailed)</td><td>5–6</td><td>AO3 – Demonstrates detailed analysis of the importance of the physical environment in providing opportunity for a wide range of social and economic activities. AO4 – Communicates ideas with clarity and good use of geographical language.</td></tr><tr><td>2 (Clear)</td><td>3–4</td><td>AO3 – Demonstrates clear analysis of the importance of the physical environment in providing opportunity for a range of social and / or economic activities. AO4 – Communicates ideas effectively with some use of geographical language.</td></tr><tr><td>1 (Basic)</td><td>1–2</td><td>AO3 – Demonstrates limited analysis of the importance of the physical environment in providing opportunity for social and / or economic activities. AO4 – Communicates ideas using basic language.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></table> • Level 3 (detailed) use of Figure 2 and Figure 3 which offers developed and reasoned observations about how the physical environment provides the opportunity for a wide range of socio-economic opportunities. May make links between social/recreational opportunities and economic opportunities (visitor centres/wardens/catering opportunities). • Level 2 (clear) use of Figure 2 and/or Figure 3 which offers reasoned observations about how the physical environment provides the opportunity for a range of socio-economic opportunities. May not indicate links between social and economic opportunities. • Level 1 (basic) use of Figure 2 and/or Figure 3 which identifies a narrow range (more than one) of the socio-economic opportunities related to areas of countryside/water features. Basic expression of ideas. May be largely copied points with limited development. Word for word copy from resource – Max 1 mark. The question requires candidates to make appropriate links between content from different parts of the course. <u>Indicative content</u>	Level	Marks	Description	3 (Detailed)	5–6	AO3 – Demonstrates detailed analysis of the importance of the physical environment in providing opportunity for a wide range of social and economic activities. AO4 – Communicates ideas with clarity and good use of geographical language.	2 (Clear)	3–4	AO3 – Demonstrates clear analysis of the importance of the physical environment in providing opportunity for a range of social and / or economic activities. AO4 – Communicates ideas effectively with some use of geographical language.	1 (Basic)	1–2	AO3 – Demonstrates limited analysis of the importance of the physical environment in providing opportunity for social and / or economic activities. AO4 – Communicates ideas using basic language.		0	No relevant content.	6
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	0	No relevant content.																

		- The physical environment provides a wide range of economic opportunities in relation to resource development and use, and also transportation. - Economic opportunities may be created for both the local area and the wider economy. - Economic opportunities may be reflected in job opportunities/wealth creation or specific industrial links. Multiplier possibilities might be considered. - There are a range of social activities which might be passive or active. These might be expressed in many ways (recreational/sporting/creative/educational/environmental). - Social and economic opportunities do not exist in isolation. For instance, water sports activities are seen as a recreational/social activity but also provide employment through activity centres/cafes etc.). - Accept observations about negative socio-economic opportunities AO3 = 3 marks, AO4 = 3 marks	
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03	2	Do you think that the proposed reservoir development should go ahead? Use evidence from the resources booklet and your own understanding to explain your choice.		9 + 3 SPaG
		Level	Marks	
		3 (Detailed)	7–9	
		2 (Clear)	4–6	
		1 (Basic)	1–3	

		AO3 – Demonstrates thorough application of knowledge and understanding in evaluating the proposed reservoir development in terms of the socio-economic and environmental impacts. AO3 – Applies knowledge and understanding to make a decision based on a wide range of evidence, making specific links between different elements of the specification. AO4 – Communicates ideas with clarity and good use of geographical language.
		AO3 – Demonstrates reasonable application of knowledge and understanding in evaluating the proposed reservoir development in terms of the socio-economic and/or environmental impacts. AO3 – Applies knowledge and understanding to make a decision based on a reasonable range of evidence, making some links between different elements of the specification. AO4 – Communicates ideas effectively with some use of geographical language.
		AO3 – Demonstrates basic application of knowledge and understanding in evaluating the proposed

		reservoir development in terms of the socio-economic and/or environmental impacts. AO3 – Applies knowledge and understanding to make a decision based on a narrow range of evidence, making basic links between different elements of the specification. AO4 – Communicates ideas using basic language.
	0	No relevant content.

- Level 3 (detailed) use of the resources with a wide range of points developed (using the range of resources or going beyond the resources) which supports the decision. Offers detailed observations which support the decision OR offers a balanced appreciation of the advantages/disadvantages of the proposed development. Likely to use material from different parts of the resource booklet.
- Level 2 (clear) use of the resources with a range of points identified with some development in order to support the decision. OR clearly considers advantages/disadvantages of the proposed development. May reference other parts of the resource booklet.
- Level 1 (basic) use of the resources with a limited number of individual points identified (largely copied points with limited development) in order to support the decision. OR identifies basic advantages/disadvantages of the proposed development expressed within the resources. May be limited to Figure 3 only.

Indicative content

- There is an expectation that candidates will draw on evidence from the whole of the resource booklet in order to consider broader themes and potentially bring in wider aspects of their geographical study.
- Decision making implies an element of evaluative thinking. This can be expressed in different ways.
- There are strong synoptic links running through the whole exercise including; elements of physical geography; environmental geography; social geography and economic geography.
- There is a strong link to the idea of the environment as a valuable resource and an appreciation of the concept of both environmental and socio-economic sustainability and how these might be linked is implicit throughout the exercise.
- This exercise implies an understanding of the challenges of managing the security of water supply and the importance of a reliable and cost effective supply of water.
- There is a clear reference to the idea that there may be different ways to satisfy increasing demand, so this scheme could be seen relative to other possibilities.
- There is a clear element of balancing socio-economic gains and socio-environmental costs, but there are more complex factors, for example,

	the extent to which the development might create wider gains at the cost of local people. • The nature of the exercise suggests an element of discussion about the balance between managing supply and demand. As such there is a strong element of using conservation and technology to control demand, which in turn may reflect on the need for large scale developments. The proposed development is being sold as essentially the only real option; however opposition groups suggest that there may be other options/combinations of options. • Part of the discussion may be the extent to which the development provides the best opportunity to satisfy future water needs or whether a number of smaller schemes and conservation measures may be more economically and environmentally suitable. • Candidates may challenge the idea that the development is based on future predictions (of population/housing based demand and climate uncertainty) and consider that this data may be unreliable, consequently leading to a “white elephant” scenario (Kielder Water?). This avenue of thinking is reasonable in relation to offering a broad ranging evaluative judgement. AO3 = 6 marks, AO4 = 3 marks Spelling, punctuation and grammar (SPaG) High performance • Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate Intermediate performance • Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate Threshold performance • Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall • Learners use a limited range of specialist terms as appropriate No marks awarded • The learner writes nothing • The learner’s response does not relate to the question The learner’s achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.	3 2 1 0
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Section B: Fieldwork

Qu	Pt	Marking guidance	Total marks
04	1	Complete the map below (Figure 5) to show the origin of visitors to Bournemouth using the following data. 1 mark for correct shading in appropriate region (Yorkshire and the Humber). Must be shown as horizontal lines AO4 = 1 mark	1
04	2	Describe the pattern shown by Figure 5. Two basic points OR one developed point (can be an identified point and use of data) Needs reference to the actual map data to provide accurate indicative content • Most come from the southern area (1), particularly the South east, East Midlands and West Midlands (d)(1) • Fewer come from the northern area (1), particularly Scotland, Wales and Northern Ireland (d)(1) • Fewest from Wales / Scotland / Northern Ireland (1) • The greater the distance from Bournemouth the smaller the number of visitors (1) • Higher towards the east of the map (1) Max 1 mark for lifting data about areas (at least 2) from the key eg 14 % and more came from the South East, and 5% or less came from Scotland (1) Allow reference to Figure 4 data. AO4 = 2 marks	2
04	3(a)	Suggest one additional question which could be included on the visitor survey. Credit any valid additional idea that would give a more accurate picture of visitors to Bournemouth Questions might relate to: • Form of transport used to visit Bournemouth • When the visit took place • Time taken to reach Bournemouth • Reason for visit • Length of stay • Type of accommodation	1

		• Attractions visited. • Whether you would return No credit for “where have you come from?” AO4 = 1 mark	
04	3(b)	Give one reason why your chosen question might provide useful information for the visitor survey. Credit any valid reason which is clearly linked to part (a). Ideas might include; • Reliance on public transport • Seasonality • Popularity of different types of accommodation • Relative popularity of different types of facility AO4 = 1 mark	1
04	4(a)	Suggest a more appropriate method for presenting the data shown in Figure 6. Eg. Bar graph/chart Pie chart AO4 = 1 mark	1
04	4(b)	Give a reason for your choice. Link to chosen method • Consists of discrete data/discontinuous data • Gives an accurate number for each month • Easier to identify differences across the year/see each separate set of data AO4 = 1 mark	1
04	5	What is the total environmental quality score for the area shown in Figure 8? 1 mark for correct answer. • plus 2 (+2) /Just “2” is acceptable AO4 = 1 mark	1

04	6	Suggest one advantage and one disadvantage of using the technique shown in Figure 8 to measure environmental quality. Accept any reasonable points, which might include: Advantage (1 mark) • Easy to read/understand • Quick to complete so a lot of data can be gathered • Does not require any complicated equipment • Could be given out and collected later • Quite easy to calculate and make comparisons • Do not need any particular skills to carry out the data collection • The features that make up the survey could be changed to suit the area and aim(s) of the enquiry. • Shows strength of opinion • Considers a range of factors • Turns subjective ideas into numerical data Disadvantage (1 mark) • Not totally clear what the categories mean • Very subjective and based on opinions rather than facts • Some people may not understand the language and simply say anything • Levels of accuracy – if people are unsure they will tend to give a middle answer • Comparability (especially if completed by different people) • The range of possibilities is narrow so major differences may not show up • Requires mathematical skills to calculate/opportunity for mathematical error • Lacks specificity in relation to the values • Can end up with a narrow range of outcomes 1 mark maximum for directly reversed point eg easy to calculate overall value/ hard to calculate value AO3 = 2 marks	2
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04	7	Complete the scattergraph for River B by plotting the following data. One mark for accurately plotting the data Must be plotted where graph lines cross AO4 = 1 mark	1
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04	8	Draw a line of best fit on the scattergraph for River B. Should have bottom left to upper right inclination and be roughly in the centre of the scatter/approximately the same number of points on either side. Line should have a lower gradient than line on River A. Must start at or near bottom left hand point of graph and end at a point between 60cm and 80cm on the vertical. Do not credit line that does not cover range of points (shortened line). Straight line only AO4 = 1 mark	1
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04	9	Compare the relationship between distance from source and depth of river for the two rivers. <table border="1"><thead><tr><th>Level</th><th>Marks</th><th>Description</th></tr></thead><tbody><tr><td>2 (Clear)</td><td>3–4</td><td>AO3 – Demonstrates clear application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Clear reference made to the data shown on the scattergraph.</td></tr><tr><td>1 (Basic)</td><td>1–2</td><td>AO3 – Demonstrates limited application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Some reference made to the data shown on the scattergraph.</td></tr><tr><td></td><td>0</td><td>No relevant content.</td></tr></tbody></table> • Level 2 (clear) identification of the relationship between river depth and distance from the source, making some reference to the relative strength of the relationship. May consider anomalies. Direct use of data to make clear comparative observations. • Level 1 (basic) identification of the relationship(s) expressed by the scattergraph(s). Some implied use of data. <u>Indicative content</u> The command word is ‘compare’ therefore students will need to make reference to both graphs. The levels will reflect the extent to which students are capable of identifying a pattern that indicates a positive correlation whilst appreciating there is a difference in the strength of the relationship between the two graphs. • Answers must apply understanding to the pattern displayed in the scattergraphs. Answer may refer to: • number of points • pattern of dispersion • degree of clustering around the best fit line • anomalies. • Credit use of data to express relative differences AO3 = 2 marks. AO4 = 2 marks	Level	Marks	Description	2 (Clear)	3–4	AO3 – Demonstrates clear application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Clear reference made to the data shown on the scattergraph.	1 (Basic)	1–2	AO3 – Demonstrates limited application of knowledge and understanding of scattergraphs in interpreting the correlation between river depth and distance from the source. AO4 – Some reference made to the data shown on the scattergraph.		0	No relevant content.	4
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