

...day June 20XX - Morning/Afternoon

GCSE (9–1) Geography B (Geography for Enquiring Minds)
J384/01 Our Natural World

SAMPLE MARK SCHEME

Duration: 1 hour 15 minutes

MAXIMUM MARK 70

This document consists of 24 pages

MARKING INSTRUCTIONS

PREPARATION FOR MARKING

SCORIS

- 1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: scoris assessor Online Training; OCR Essential Guide to Marking.
- 2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal http://www.rm.com/support/ca
- 3. Log-in to scoris and mark the **required number** of practice responses ("scripts") and the **required number** of standardisation responses.

YOU MUST MARK 10 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

TRADITIONAL

Before the Standardisation meeting you must mark at least 10 scripts from several centres. For this preliminary marking you should use **pencil** and follow the **mark scheme**. Bring these **marked scripts** to the meeting.

MARKING

- 1. Mark strictly to the mark scheme.
- 2. Marks awarded must relate directly to the marking criteria.
- 3. The schedule of dates is very important. It is essential that you meet the scoris 50% and 100% (traditional 50% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
- 4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone, email or via the scoris messaging system.

- Work crossed out:
 - a. where a candidate crosses out an answer and provides an alternative response, the crossed out response is not marked and gains no marks
 - b. if a candidate crosses out an answer to a whole question and makes no second attempt, and if the inclusion of the answer does not cause a rubric infringement, the assessor should attempt to mark the crossed out answer and award marks appropriately.
- 6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add a tick to confirm that the work has been seen.
- 7. There is a NR (No Response) option. Award NR (No Response)
 - if there is nothing written at all in the answer space
 - OR if there is a comment which does not in any way relate to the question (e.g. 'can't do', 'don't know')
 - OR if there is a mark (e.g. a dash, a question mark) which isn't an attempt at the question.

Note: Award 0 marks – for an attempt that earns no credit (including copying out the question).

- 8. The scoris **comments box** is used by your Team Leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**If you have any questions or comments for your Team Leader, use telephone, email or the scoris messaging system.
- 9. Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.

10. **Annotations**

Annotation	Meaning

11. Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper and its rubrics
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

USING THE MARK SCHEME

Please study this Mark Scheme carefully. The Mark Scheme is an integral part of the process that begins with the setting of the question paper and ends with the awarding of grades. Question papers and Mark Schemes are developed in association with each other so that issues of differentiation and positive achievement can be addressed from the very start.

This Mark Scheme is a working document; it is not exhaustive; it does not provide 'correct' answers. The Mark Scheme can only provide 'best guesses' about how the question will work out, and it is subject to revision after we have looked at a wide range of scripts.

The Examiners' Standardisation Meeting will ensure that the Mark Scheme covers the range of candidates' responses to the questions, and that all Examiners understand and apply the Mark Scheme in the same way. The Mark Scheme will be discussed and amended at the meeting, and administrative procedures will be confirmed. Co-ordination scripts will be issued at the meeting to exemplify aspects of candidates' responses and achievements; the co-ordination scripts then become part of this Mark Scheme.

Before the Standardisation Meeting, you should read and mark in pencil a number of scripts, in order to gain an impression of the range of responses and achievement that may be expected.

In your marking, you will encounter valid responses which are not covered by the Mark Scheme: these responses must be credited. You will encounter answers which fall outside the 'target range' of Bands for the paper which you are marking. Please mark these answers according to the marking criteria.

Please read carefully all the scripts in your allocation and make every effort to look positively for achievement throughout the ability range. Always be prepared to use the full range of marks.

LEVELS OF RESPONSE QUESTIONS:

The indicative content indicates the expected parameters for candidates' answers, but be prepared to recognise and credit unexpected approaches where they show relevance.

Using 'best-fit', decide first which set of level descriptors best describes the overall quality of the answer. Once the level is located, adjust the mark concentrating on features of the answer which make it stronger or weaker following the guidelines for refinement.

Highest mark: If clear evidence of all the qualities in the level descriptors is shown, the HIGHEST Mark should be awarded.

Lowest mark: If the answer shows the candidate to be borderline (i.e. they have achieved all the qualities of the levels below and show limited evidence of meeting the criteria of the level in question) the LOWEST mark should be awarded.

Middle mark: This mark should be used for candidates who are secure in the level. They are not 'borderline' but they have only achieved some of the qualities in the level descriptors.

Be prepared to use the full range of marks. Do not reserve (e.g.) highest level marks 'in case' something turns up of a quality you have not yet seen. If an answer gives clear evidence of the qualities described in the level descriptors, reward appropriately.

	AO1	AO2	AO3
Comprehensive	A range of detailed and accurate	A range of detailed and accurate	Detailed and accurate interpretation through the application of relevant knowledge and understanding.
	knowledge that is fully relevant to the	understanding that is fully relevant to	Detailed and accurate analysis through the application of relevant knowledge and understanding.
	question.	the question.	Detailed and substantiated evaluation through the application of relevant knowledge and understanding. Detailed and substantiated judgement through the application of relevant
Thorough	A range of accurate	A range of accurate	knowledge and understanding. Accurate interpretation through the application of relevant knowledge and understanding.
	knowledge that is relevant to the	understanding that is relevant to the	Accurate analysis through the application of relevant knowledge and understanding.
	question.	question.	Supported evaluation through the application of relevant knowledge and understanding. Supported judgement through the application of relevant knowledge and
			understanding.
Reasonable	Some knowledge that is relevant to	Some understanding that	Some accuracy in interpretation through the application of some relevant knowledge and understanding.
	the question.	is relevant to the question.	Some accuracy in analysis through the application of some relevant knowledge and understanding.
			Partially supported evaluation through the application of some relevant knowledge and understanding.
			Partially supported judgement through the application of some relevant knowledge and understanding.
Basic	Limited knowledge that is relevant to	Limited understanding that	Limited accuracy in interpretation through lack of application of relevant knowledge and understanding.
	the topic or question.	is relevant to the topic or question.	Limited accuracy in analysis through lack of application of relevant knowledge and understanding.
	quodion.	topio or quodion.	Un-supported evaluation through lack of application of knowledge and understanding.
			Un-supported judgement through lack of application of knowledge and understanding.

C	uestion	Answer	Marks	Guidance
1	(a)	A small area of the earth's crust where unusually high	2	2 x 1 (✓)
	(b)	heat flow (✓) is linked to volcanic activity (✓) The majority of earthquakes occur at plate boundaries	4	2 x 1 (✓) for describing the pattern of earthquake
		(✓) with a particularly large number of earthquakes		distribution
		along the western edge of the Pacific Plate (✓)		1 x 1 (DEV) for using data from the map
		including three of the largest earthquakes which		1 x 1 (COM) for communicating the answer in an
		registered over 6.02 in magnitude (DEV) occurring		appropriate and logical order
		here (COM)		
	(c)	A: Bar graph (✓)	1	(')
	(d)	Level 3 (5–6 marks)	6	Indicative content
		An answer at this level demonstrates thorough	\	Extremes in weather conditions most likely to be
		understanding of extreme weather conditions in		discussed are temperature, wind and precipitation.
		contrasting countries (AO2) and thorough analysis of		
		the differences in extreme weather conditions in		The differences in extreme weather conditions could
		contrasting countries (AO3).		include contrasts between the countries, but may also
				focus on differences between extremes and averages
		This will be shown by including well-developed ideas		within the countries.
		both about extreme weather conditions and the		
		differences in extreme weather conditions in		Examples can be drawn from any countries but at least
		contrasting countries.		two should be discussed and they must be contrasting in
				terms of their extreme weather conditions.
		Level 2 (3–4 marks)		
		An answer at this level demonstrates reasonable		Examples of well-developed ideas:
		understanding of extreme weather conditions in		England and Australia have very different extremes in
		contrasting countries (AO2) and reasonable analysis		temperature when compared to each other but not
		of the differences in extreme weather conditions in		necessarily as a difference from their own average
		contrasting countries (AO3).		temperatures. Average summer temperatures in England
		This will be shown by including developed ideas about		are around 20°C, with 30°C being considered extreme.
		This will be shown by including developed ideas about either extreme weather conditions or the differences in		This 10°C difference is mirrored in Australia with average
i		either extreme weather conditions or the differences in		summer temperatures being around 30°C and extremes

oped ideas: ures in Australia are much higher than verage summer temperatures in
res in Australia are much higher than
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G
erage summer temperatures in
•
y similar to very hot weather in England nsidered extreme.
le ideas:
eratures in Australia are much hotter
notter than England especially in the

(Question	Answer	Marks	Guidance
2	(a)	A: Mean (✓)	1	(✓)
	(b)	Historical records (✓) and ice cores (✓) are two sources of evidence of climate change. Historical records may be less reliable than ice cores as they are handwritten or drawn based on one person's interpretation (DEV) without the use of modern thermometers (DEV) Other possible data/evidence: Sea ice positions (✓) Global temperature change (✓) Paintings (✓) Diaries (✓)	4	Answer given will depend on type of data/evidence for climate change chosen 2 x 1 (✓) reserved for types of data/evidence for climate change 2 x 1 (DEV) for comparing the reliability of data i.e. glacial/interglacial cycles = natural process, need a range of data to support, level of glacial retreat, ice sheet depletion, global temperature variances Comparison must be related to reliability
	(c)	Level 3 (6–8 marks) An answer at this level demonstrates thorough understanding of the social and environmental impacts of climate change experienced in the UK in the 21 st century (AO2) and thorough analysis of whether the social impacts are greater than the environmental impacts (AO3). This will be shown by including well-developed ideas about the social and environmental impacts of climate change experienced in the UK in the 21 st century and which are greater. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 (3–4 marks) An answer at this level demonstrates reasonable	8	Indicative content Social impacts could include: Tourist industry boom as more people holiday at home due to warmer weather in the UK Farmers can grow different varieties of crops such as grapes as the UK experiences warmer weather Decrease in cold related deaths over winter Increased pressure on the NHS from patients developing heat related illnesses. Increased flooding leading to homelessness, deaths, anxiety, depression Extreme weather events causing damage to homes, drought, water shortages, dehydration, hose pipe bans and loss of communications Effects on farming impacting livelihoods, price of goods and availability of products and food security. Effects on fishing impacting livelihoods, price of goods

Question	Answer	Marks	Guidance
	No response or no response worthy of credit.		Examples of simple ideas: Social impacts mostly happen after an environmental impact and make them worse, like when people have to leave their homes after a flood.

	Question		Answer	Marks	Guidance
3	(a)	(i)	C: 2400	1	(✓)
		(ii)	C: 8880	1	(V)
	(b)		Possible suggestions:	2	1 x 1 (✓) for layer suggested
					1 x 1 (DEV) for reason
			Geology (✓) so they can plan which sites to visit		
			depending on their fieldwork title (DEV)		Do not accept symbols already used on the map
			Youth hostels/accommodation (✓) so they can plan a		
			route for fieldwork investigations starting from their		
			accommodation (DEV)		
			Public transport information (✓) so they can plan travel		
			to and from the area (DEV)		
			Coastal management zones/techniques (✓) so they		
			can decide which section of the coastline to sample (DEV)		
	(c)		Waves attack vertical lines of weakness in the	3	3 x 1 (✓) for each valid explanation of the stages in the
	(0)		headland until a crack forms by hydraulic action (✓)		formation of an arch
			The crack continues to expand until it becomes a cave		Torridation of all allon
			(✓)		No DEV required
			The rock continues to erode until the cave breaks		The BEV Toquillou
			through the headland to form an arch (✓)		
	(d)		Case study: river basin in the UK	6	Case study will be marked using 3 levels:
	(α)		Substitute Substitute Six		Saco stady will be marked doing a levele.
			Level 3 (5–6 marks)		Case study: responses will depend on candidate's area of
					study.
			An answer at this level demonstrates a thorough		
			knowledge of geomorphic processes (AO1) and a		Indicative content
			thorough understanding of how human activity has		Management strategies could include:
			influenced the geomorphic processes (AO2).		Flood barriers/dams –silting up, restriction of sediment
			This will be shown by including well-developed ideas		replenishment (dev) River realigning/straightening – restriction of
			This will be shown by including wen-developed ideas		Niver realigning/straigntening – restriction of

Question	Answer	Marks	Guidance
	both about the geomorphic processes and how human activity has influenced the geomorphic processes. The answer must also include place-specific details for the landscape. Amount of relevant place-specific detail determines credit within level.		meanders/horizontal) lateral erosion Channelisation- impact of erosion, decreased bedload, deposition, throughflow. Building on flood plains – increased surface runoff, Afforestation/deforestation Artificial Levees/Embankments
	An answer at this level demonstrates reasonable knowledge of geomorphic processes (AO1) and reasonable understanding of how human activity has influenced the geomorphic processes (AO2). This will be shown by including developed ideas either about the geomorphic processes or how human activity has influenced the geomorphic processes. Developed ideas but no place-specific detail credited up to bottom of level. Valid named example needed for top of level.		Examples of well-developed ideas: Humans have straightened rivers and introduced channelisation to increase the discharge of the River Nene in Northampton. These changes alter the velocity of the river and reduce friction. These human activities reduce the amount of lateral and vertical erosion causing the river to not form a meander which would be the natural landscape. Examples of developed ideas: Channel straightening is one way that humans have altered the river Nene landscape in Northampton. They have used concrete to change the route of the river which has caused less erosion and flooding.
	Level 1 (1–2 marks) An answer at this level demonstrates basic knowledge of geomorphic processes (AO1) and basic understanding of how human activity has influenced the geomorphic processes (AO2). This will be shown by including simple ideas about the geomorphic processes or how human activity has influenced the geomorphic processes. No developed points are made.		Examples of simple ideas: One way humans have affected the river is by taking away the bends and making the river straighter.

Question	Answer	Marks	Guidance
	Simple ideas or appropriate named example only credited at bottom of level.		
	0 marks No response or no response worthy of credit.		
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The temperature of the hot desert is consistent at the start of the year before increasing steadily to peak in July and August and decreasing again (✓). The rainfall in the hot desert is significantly higher from December through to April and very low between May	
The rainfall in the hot desert is significantly higher from December through to April and very low between May	
December through to April and very low between May	
and November (✓).	
(b) C: 2 and 3 1 (\$\)	
(c) Reduction of flood risk as trees intercept and slow down rainwater (✓) Reduction of flood risk as trees intercept and slow down rainwater (✓)	
The rainforest acts as the lungs of the planet through photosynthesis (✓)	
The rainforest is a natural store of carbon dioxide so it balances atmospheric gases (✓)	
Soils enable commercial agriculture (✓)	
Rainforests are popular with tourists due to the flora	
and fauna (✓)	
The rainforest ecosystem is a habitat for a huge	
number of species of animals and vegetation (</th <th></th>	
(d) Case study: a small scale example of sustainable 6 Indicative content Case study: either Arctic or Antarctic ex	vamnla
management in either the Arctic or Antarctic Case study: either Arctic or Antarctic ex Max level 1 = large scale e.g. Earth Sur	•
Level 3 (5–6 marks) Level 3 (5–6 marks)	iiiiiit
An answer at this level demonstrates thorough	
knowledge of a small scale sustainable management Examples could include sustainable tou	urism,
scheme (AO1) and a thorough evaluation of the conservation, whaling	
success of the example of sustainable management	
(AO3). Example of well-developed ideas:	
Tour operators have an agreed set of ru	
This will be shown by including well-developed ideas Antarctica, this includes the sustainable	
about the small scale sustainable management management plan. Litter is one thing co	
scheme and its success. plan, and it has to be prevented and rer	
the areas ecosystems and natural beau The answer must also include place-specific details positive impact on both the waste mana	
for the named management scheme. Amount of habitats of birds and sea life in Antarctic	

Question	Answer	Marks	Guidance
	relevant place-specific detail determines credit within level. Level 2 (3–4 marks) An answer at this level demonstrates reasonable knowledge of a small scale sustainable management scheme (AO1) and a reasonable evaluation of the success of the example of sustainable management (AO3). This will be shown by including developed ideas about the small scale sustainable management scheme and its success. Developed ideas but no place-specific detail credited up to bottom of level. Valid named example needed for top of level. Level 1 (1–2 marks) An answer at this level demonstrates basic knowledge of a small scale sustainable management scheme (AO1) and a basic evaluation of the success of the example of sustainable management (AO3). This will be shown by including simple ideas about the small scale sustainable management scheme and its success. Simple ideas or appropriate named example only credited at bottom of level. 0 marks No evidence submitted or the response does not address the question.		many positive points but also the tours themselves potentially have a number of negative impacts on ecosystems, such as interrupting species breeding routines. To mitigate this tour operators try to advise tourists on where to position themselves when viewing birds and animals to cause least impact. Example of developed ideas: The Antarctic tour operators have rules to help protect it for example by only allowing a certain number of people to go there and no litter is allowed to be left there. This has meant there are less people destroying the pristine ecosystem and those who do go do as little damage as possible. Example of simple ideas: People have been stopped from going on large ships to holiday in the Antarctic so that there is less damage to it.

(Question		Answer		Guidance		
5	(a)		Examples may include: To identify sample sites (✓) To use in conjunction with a GIS map showing sample sites (✓) With annotated labels of the landform (✓) Geolocated to show its position on a map (✓)	2	2 x 1 (*)		
	(b)	(i)	54mm (✓)	1	(✓)		
		(ii)	0.23m (✓)	1	(√)		
		(iii)	1 mark for correctly completing the graph with 0.29 point and joining the points on the graph	1	(^)		
	(c)		Expect a wide range of data collection techniques Measuring river depth this technique was limited due to health and safety (✓) where high bankfull discharge meant that we could not sample enough sites (✓) Measuring river depth, this technique was useful in helping us answer our question 'how do rivers change along their course' (✓) where we were able to sample six sites which gave us a good range of sites along the rivers course (✓)	2	2 x 1 (✓) Technique must be related to physical geography No mark awarded for just stating the technique Evaluation may refer to: Limitations and merits of the technique in helping to answer the question for investigation How easy the data collected was to analyse and present Level of ease carrying out the technique at the time/day of collection		
	(d*)		Level 3 (6–8 marks) The answer must include a thorough analysis of the fieldwork data (AO3) to come to a thorough conclusion that answers the question (AO3). This will be shown by including well-developed ideas. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.	8	Conclusion: LSD occurs from west to east – supporting evidence from Figs 5, 6 and 7 large fetch = movement of sediment More sediment on the west than east Example of well-developed ideas: From the figures it can be concluded that longshore drift does occur at Sheringham. The raw data in the table illustrates the differences in the sediment levels either side of the groyne which shows more sediment build up		

Question	Answer	Marks	Guidance
	The answer must include reasonable analysis of the fieldwork data (AO3) with reasonable conclusion to help answer the question "Does the process of longshore drift occur at Sheringham?" (AO3). This will be shown by including developed ideas. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 1 (1–2 marks) The answer will include basic analysis of the fieldwork data (AO3) to come to a basic conclusion answering the question "Does the process of longshore drift occur at Sheringham (AO3). This will be shown by including simple ideas. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. O marks No response or no response worthy of credit.		on the west side than on the east side. There is a difference of 2.62m of sand built up between the east and west side of the groyne. This indicates longshore drift is occurring and the groyne is working effectively to trap sand and slow the process of longshore drift. Example of developed ideas: The table shows a difference in the amount of sediment on the east and west side of the groyne therefore longshore drift does occur. For example at 12m there is a 0.53m of sand on the east compared to 1.28m on the west. The graph shows an overall greater amount of sand on the west hand side of the groyne, indicating that longshore drift does occur. Example of simple ideas: Longshore drift does occur at Sheringham, you can se this from the graph where there is more sand on one side of the groyne.
	Spelling, punctuation and grammar and the use of specialist terminology (SPaG) are assessed using the separate marking grid in Appendix 1.	3	

APPENDIX 1

Spelling, punctuation and grammar and the use of specialist terminology (SPaG) assessment grid*

High performance 3 marks

- 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 2 marks

- 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 1 mark

- Learners spell and punctuate with reasonable accuracy
- Learners use rules of grammar with some control of meaning and any errors do not significantly hinder overall
- Learners use a limited range of specialist terms as appropriate

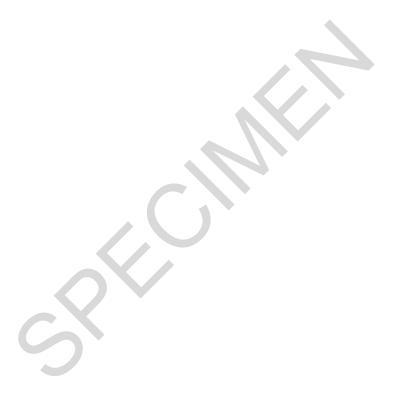
0 marks

- 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

Assessment Objectives (AO) grid

Question	AO1	AO2	AO3	AO4	Marks	SPaG
1a	2				2	
1b				4	4	
1c				1	1	
1d		3	3		6	
2a				1	1	
2b	2		2		4	
2c		4	4		8	
3ai				1	1	
3aii				1	1	
3b				2	2	
3c		3			3	
3d	3	3			6	
4a				2	2	
4b		1			1	
4c	4				4	
4d	3		3		6	
5a				2	2	
5bi				1	1	
5bii				1	1	
5biii				1	1	
5c			2		2	
5d			8		8	3
Total	14	14	22	17	67	3

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