



GCSE GEOGRAPHY

PAPER 1 LIVING WITH THE PHYSICAL ENVIRONMENT

Mark scheme

Additional Specimen

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

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 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.

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 guestion 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, 3 marks are allocated for SPaG as follows:

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

	Q	Part	Marking guidance	notal marks	
Que	estion	1 Th	ne challenge of natural hazards		
	01	1	1 st mark for a link between plate margins and earthquakes. 2 nd mark for any further distribution observation (some slightly away from plate margin – Sulawesi; more on some margin than others, with example).	2	
			AO4 = 2 marks		

01	2	1 st .mark some reference to plate margin 2 nd . mark for sudden release of pressure/stresses	2
		AO1 = 2 marks	

01	3	Landslides and Floods (2 x 1 marks)				
		AO4 = 2 marks				

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Indicative content

- Effects can relate to any type of tectonic activity.
- Effects can be considered in socio-economic and environmental terms.
- Effects can be primary and secondary.
- Answers may simply agree with the premise that wealth gives better opportunities for prediction, preparation and planning or may look at individual aspects within these categories.
- Students may reflect on 'recovery times' linked to levels of wealth.
- A broader discussion may consider that while wealth is an important factor there may be other considerations.

AO1 = 2 marks, AO2 = 2 marks, AO3 = 2 marks

01 6 Increase in temperature – B and G
Decrease in rainfall – E and F
Rise in sea level – C and D

1 mark for each completed category which has two correct answers
(3 x 1 marks)

AO4 = 3 marks

01	7				1
01	'	Level	Mark	Description	4
		2 (Clear)	3–4	AO1 Demonstrates specific and clear knowledge of how the rate of climate change can be reduced.	
				AO2 Demonstrates some understanding of mitigation in relation to reducing the rate of climate change.	
		1 (Basic)	1–2	AO1 Shows limited generic knowledge as to how the rate of climate change can be reduced with basic points not fully developed.	
				AO2 Shows limited understanding and making general observations as to how the rate can be reduced.	
			0	No relevant content.	

Indicative content

- At Level 2, some appreciation that mitigation involves managing causes.
- General points about reducing the burning of fossil fuels in transport or the production of electricity.
- Specific ideas about how reducing the use of fossil fuels can be achieved. This might be considered in relation to energy generation, more efficient homes and vehicles or using less energy in industry.

AO1 = 2 marks, AO2 = 2 marks

1	8	Level	Marks	Description
		3 (Detailed)	7–9	AO1 Demonstrates comprehensive and accurate knowledge of the factors involved in reducing the effects of tropical storms.
				AO2 Demonstrates a thorough understanding of how prediction, planning and preparation can reduce the effects of tropical storms.
				AO3 Demonstrates sound application of knowledge and understanding in a reasoned way to make a judgement about the relative importance of prediction in reducing the effects of tropical storms.
		2 (Clear)	4–6	AO1 Demonstrates specific and clear knowledge of the factors involved in reducing the effects of tropical storms.
				AO2 Demonstrates some understanding of how prediction, planning and preparation can reduce the effects of tropical storms.
				AO3 Demonstrates some application of knowledge and understanding to evaluate the relative importance of prediction in reducing the effects of tropical storms.
		1 (Basic)	1–3	AO1 Shows limited knowledge of the factors involved in reducing the effects of tropical storms.
				AO2 Shows limited understanding of how prediction, planning and preparation can reduce the effects of tropical storms.
				AO3 Shows limited application of knowledge and understanding and makes a simple evaluation about the relative importance of prediction in reducing the effects of tropical storms.
			0	No relevant content.

Indicative content	
 The command is 'Assess the extent', so the focus of the question is an evaluation of the relative importance of prediction in reducing the risks associated with tropical storms. Students might consider a range of important factors, including prediction, preparation and planning. The discussion might lead to a number of evaluative ideas which might include; observations which suggest that one factor is more significant than another; observations which might suggest that all factors are equally important or that they are linked; observations that individual factors may be more significant in different circumstances. Any type of appropriate evaluative focus is acceptable. AO1 = 3 marks, 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	3
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 	2
 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 	1
No marks awarded The learner writes nothing The learner's response does not relate to the question	0
The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.	

Question 2 The living world

02	1	South America and Asia (2 x 1 marks)	2
		AO4 = 2 marks	
	1		<u> </u>
02	2	2 °C	1
		AO4 = 1 mark	
02	3	2161mm	1
		AO4 = 1 mark	
	I		
02	4	12 months	1
		AO4 = 1 mark	
02	5	Three or four correct, 2 marks One or two correct, 1 mark	2
		AO3 = 2 marks	
	I		<u> </u>
02	6	1 mark for accurate completion of pie graph, including shading.	1
		AO4 = 1 mark	
02	7	Any two reasonable points (2 x 1 marks)	2
		Indicative content	
		 Different levels of development. Population density/building settlements. Mining/mineral resource exploitation. Improved infrastructure/building roads. Political stability. Development of hydro-electricity systems. Foreign investment. Conservation measures. 	
		AO1 = 2 marks	

2 8	Level	Marks	Description
	3 (Detailed)	5–6	AO2 Shows thorough geographical understanding of the nutrient cycle as an example of recycling.
			AO3 Demonstrates sound application of knowledge and understanding in a reasoned way in evaluating the nutrient cycle as a means of recycling.
	2 (Clear)	3–4	AO2 Shows some geographical understanding of the nutrient cycle as an example of recycling.
			AO3 Demonstrates some application of knowledge and understanding in evaluating the nutrient cycle as a means of recycling.
	1 (Basic)	1–2 marks	AO2 Shows limited geographical understanding of the nutrient cycle as an example of recycling.
			AO3 Demonstrates limited application of knowledge and understanding and makes a simple evaluation of the nutrient cycle as a means of recycling.
		0	No relevant content.
	 Decompate Decorecy They chem At the 	s must be imposers rial such imposers cling nutri convert nicals /nu e higher l	dead matter into a form that can be re-used and trients can be absorbed by the vegetation. levels expect students to show a greater
	throu • Use	igh an ap of biologi	g of the nutrient cycle as an example of recycling preciation of links between elements. cal terminology may be an indication of higher of a pre-requisite for higher levels.

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02	9	Level	Marks	Description
		3 (Detailed)	7–9	AO1 Demonstrates detailed knowledge of the environmental pressures on the chosen environment and the management strategies used to reduce the pressures.
				AO2 Demonstrates thorough geographical understanding of how management strategies can reduce the risk of environmental damage.
				AO3 Demonstrates sound application of knowledge and understanding in a reasoned way to make a judgement about importance of management strategies in reducing the risk of environmental damage.
		2 (Clear)	4–6	AO1 Demonstrates clear knowledge of the environmental pressures on the chosen environment and the management strategies used to reduce the pressures.
				AO2 Demonstrates some geographical understanding of how management strategies can reduce the risk of environmental damage.
				AO3 Demonstrates some application of knowledge and understanding to evaluate the importance of management strategies in reducing the risk of environmental damage.
		1 (Basic)	1–3 marks	AO1 Shows limited knowledge of the environmental pressures on the chosen environment and the management strategies used to reduce the pressures.
				AO2 Shows limited geographical understanding of how management strategies can reduce the risk of environmental damage.
				AO3 Shows limited application of knowledge and understanding and makes a simple evaluative statement about the importance of management strategies in reducing the risk of environmental damage.
			0	No relevant content.

Indicative content

- Example must be appropriately linked to either a hot desert environment or a cold environment.
- The question implies an understanding of the environmental pressures/risks on the chosen environment.
- Management strategies can be considered at any scale.
- Students are expected to go beyond just describing the strategies and offer an evaluation of the importance of each strategy in reducing risk.

AO1 = 3 marks, AO2 = 3 marks, AO3 = 3 marks

Question 3 Coastal landscapes in the UK

03	1	weathering tran	sported	deposition	2			
		1 correct – 1 mark 2 correct – 2 marks						
		AO2 = 2 marks						

03	2	Arch Stack Cave Wave-cut platform	
		One correct – 1 mark Two correct – 2 marks Three or four correct – 3 marks	
		AO3 = 3 marks	

02	3						
03	3	Level	Marks	Description			
		2 (Clear)	3–4	AO3 Demonstrates sound application of knowledge and understanding in interpreting the photograph and giving clear explanation as to why the coastal area in Figure 11 needs protecting.			
				AO3 Clear analysis of the resource, using evidence to support the response.			
		1 (Basic)	1–2 marks	AO1 Shows some knowledge of the reasons why this coastal area needs protecting from the effects of physical processes.			
				AO2 Shows some understanding of why some areas need to be protected from the effects of physical processes.			

Indicative content

- The focus of the question is on why the coastal area shown in Fig 11 needs protecting. Direct interpretation of the photograph is required.
- Damage to property and lines of communication which may be very costly to repair. High cost of temporary rehousing and additional travel.
- Decline in the local economy as businesses are unable to operate without power or road/rail connections.
- Unemployment may increase if businesses are unable to fully recover from the storm.
- Communities are cut off from normal supplies, people are unable to travel to shops and services, or to reach work.
- Closure of roads/rail may mean extensive detours for other traffic, which is expensive and time consuming.
- High cost of storms to insurers, resulting in rising premiums.

AO1 = 1 mark, AO2 = 1 mark, AO3 = 2 marks

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03	4		1		6				
00	_	Level	Marks	Description	0				
		3	5–6	AO3 Demonstrates thorough application of knowledge					
		(Detailed)		and understanding to analyse geographical information,					
				giving detailed explanation of how soft coastal					
				engineering techniques protect environments from the					
				effects of physical processes.					
				AO3 Makes full analysis of the resource, using evidence					
				to support the response.					
		2	3–4	AO1 Demonstrates clear knowledge of soft engineering					
		(Clear)		with some indication of particular soft coastal					
				engineering techniques.					
				AO2 Demonstrates clear understanding of how soft					
				coastal engineering techniques protect the coastline.					
		1	1–2	AO1 Demonstrates limited knowledge of soft					
	(Ba			engineering other than an indication of using the beach					
		,		material as shown in Figure 12.					
				AO2 Shows limited understanding of how soft coastal					
				engineering techniques protect the coastline.					
			0	No relevant content.					
		In Parties and and							
		Indicative co	<u>ntent</u>						
		Otrod	(
			•	nt use an example (place) or discussion of soft engineering					
			niques.						
				ing could include beach replenishment; beach recycling;					
				ling, all are suggested by the photograph (Figure 12).					
				that may not be clearly identified on Figure 12 (Question					
				ne help of') as long as they are relevant.					
			•	ations about sand dune regeneration and planting					
		•	tation, et						
				simply describe methods of soft engineering will be					
				ower levels. For higher level marks the emphasis needs to					
		move	e towards	considering how soft engineering methods work in order to					
		prote	ct coasta	al areas from physical processes.					

AO1 = 2 marks, AO2 = 2 marks, AO3 = 2 marks

Question 4 River landscapes in the UK

04	1	Ox-bow lake Meander Floodplain Estuary	3		
		One correct – 1 mark Two correct – 2 marks Three or four correct – 3 marks			
		AO3 = 3 marks			

04	2	suspension saltation traction	1					
		One correct – 1 mark Two to three correct – 2 marks						
		AO2 = 2 marks						

04	3		1		6
		Level	Marks	Description	
		3 (Detailed)	5–6	AO3 Demonstrates thorough application of knowledge and understanding and through analyse of the geographical information, offers detailed explanation of how physical and	
				human factors can increase the risk of flooding.	
				AO3 Makes full analysis of the resource, using evidence to support the response	
		2 (Clear)	3–4	AO1 Demonstrates clear knowledge of the physical and human factors that can increase the risk of flooding	
				AO2 Demonstrates clear understanding of how physical and human factors can increase the risk of flooding	
		1 (Basic)	1–2	AO1 Shows limited knowledge of the physical and human factors that can increase the risk of flooding.	
				AO2 Shows limited understanding of how physical and human factors increase the risk of flooding.	
			0	No relevant content.	

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Indicative content

- Students might use an example (place) or discussion about the different physical and human factors that might increase the flood risk.
- Figure 14 shows an urban area and ideas generated from the photograph might include wide flood plain, flat terrraine and observations about the creation of hard surfaces; drainage which might reduce lag times; changing river channels.
- · Accept points about building on flood plains.
- Accept points that may not be clearly identified on Figure 14 (Question states 'With the help of') as long as they are relevant. This might include points about deforestation etc.
- Students who simply describe flood events/effects will be restricted to lower levels. For higher level marks the emphasis needs to move towards considering the link between physical/human factors and flood risk.

AO1 = 2 marks, AO2 = 2 marks, AO3 = 2 marks

04	4	Level	Marks	Description
		2 (Clear)	3–4	AO3 Demonstrates sound application of knowledge and understanding in interpreting the diagram and giving clear explanation as to how the flood management scheme reduces the risk of flooding.
				AO3 Clear analysis of the resource, using evidence to support the response.
		1 (Basic)	1–2	AO1 Shows some knowledge of the methods used in flood management schemes to reduce the risk of flooding.
				AO2 Shows some understanding of how the flood management scheme reduces the risk of flooding.
			0	No relevant content.

Indicative content

- Students who simply describe the methods used will be restricted to lower levels.
- Description implies an understanding of how the methods work.
- At the higher level students should show some awareness of how the individual methods used in the scheme reduce the risk of flooding.

AO1 = 1 mark, AO2 = 1 mark, AO3 = 2 marks

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Question 5 Glacial landscapes in the UK

05	1	weathering plucking abrasion One correct – 1 mark Two or three correct – 2 marks AO2 = 2 marks	2
5	2	Pyramidal peak Corrie Hanging valley Drumlin One correct – 1 mark Two correct – 2 marks Three to four correct – 3 marks AO3 = 3 marks	3

05	3				6
US	3	Level	Marks	Description	6
		3	5–6	AO3 Demonstrates thorough application of	
		(Detailed)		knowledge and understanding and through	
				analyse of the geographical information, offers	
				detailed explanation about how particular	
				aspects of the physical landscape in glaciated	
				areas provide opportunities for a range of	
				economic activities.	
				AO2 Makaa full analysis of the resource wains	
				AO3 Makes full analysis of the resource, using	
		2	3–4	evidence to support the response. AO1 Demonstrates clear knowledge of	
		(Clear)	3-4	opportunities for economic activities provided by	
		(Clear)		glaciated landscapes.	
				giaciated iandscapes.	
				AO2 Demonstrates clear understanding of how	
				glaciated landscapes provide opportunities for	
				economic activities.	
		1	1–2	AO1 Shows limited knowledge of opportunities	
		(Basic)		for economic activities provided by glaciated	
				landscapes.	
				AO2 Shows basic understanding of how	
				glaciated landscapes provide opportunities for	
			_	economic activities.	
			0	No relevant content.	

Indicative content

- Economic activities can be interpreted broadly to include clearly linked secondary/multiplier opportunities.
- Accept points that may not be clearly identified on Figure 17 (Question states 'With the help of') as long as they are relevant. This might include points about skiing or adventure/wilderness tourism etc.
- Students are expected to make a clear link between the landscape and the economic activity rather than simply identifying generic economic activities. For example, just mentioning "tourism" has limited use unless it is linked to the landscape by offering some development (links to activities which are particularly relevant).

AO1 = 2 marks, AO2 = 2 marks, AO3 = 2 marks

05	4			
05	4	Level	Marks	Description
		2	3–4	AO3 Demonstrates sound application of
		(Clear)		knowledge and understanding in interpreting
				the photograph and giving clear explanation as
				to why land use conflicts might occur in the
				glaciated upland area shown in Figure 18
				AO3 Makes full analysis of the resource, using
				evidence to support the response.
		1	1–2	AO1 Shows limited knowledge with basic points
		(Basic)		which describe land-use pressures rather than
				identifying conflicts.
				AO2 Shows some understanding of land-use
				pressures without fully identifying why they
				might cause conflicts.
			0	No relevant content.

Indicative content

- The idea of land use conflict must relate to the 'glaciated area' shown in Figure 18.
- Land-use conflict must relate to the activity show in Figure 18.
- At the higher level students are expected to identify specific land use shown in the photograph and offer an understanding of conflict in relation to opposing views/opinions.
- It is expected that students will show some understanding about why (as expressed in the question) conflicts might develop rather than simply describing a conflict.

AO1 = 1 mark, AO2 = 1 mark, AO3 = 2 marks

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