

# Mark Scheme (Results)

January 2013

GCSE Geography B (5GB1F)  
Paper 01 Dynamic Planet (F)

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## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- 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.

### Placing a mark within a level mark band

- The instructions below tell you how to reward responses within a level. Follow these unless there is an instruction given within a level. However, where a level has specific guidance about how to place an answer within a level, **always** follow that guidance.
- **2 mark bands**  
Start with the presumption that the mark will be the higher of the two.  
An answer which is poorly supported gets the lower mark.
- **3 mark bands**  
Start with a presumption that the mark will be the middle of the three.  
An answer which is poorly supported gets the lower mark.  
An answer which is well supported gets the higher mark.
- **4 mark bands**  
Start with a presumption that the mark will be the upper middle mark of the four.  
An answer which is poorly supported gets a lower mark.  
An answer which is well supported and shows depth or breadth of coverage gets the higher mark.

- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

*i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*

*ii) select and use a form and style of writing appropriate to purpose and to complex subject matter*

*iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

## Spelling, Punctuation and Grammar Marking Guidance

- The spelling, punctuation and grammar assessment criteria are common to GCSE English Literature, GCSE History, GCSE Geography and GCSE Religious Studies.
- All candidates, whichever subject they are being assessed on, must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Spelling, punctuation and grammar marking criteria should be applied positively. Candidates must be rewarded for what they have demonstrated rather than penalised for errors.
- Examiners should mark according to the marking criteria. All marks on the marking criteria should be used appropriately.
- All the marks on the marking criteria are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the marking criteria.
- Examiners should be prepared to award zero marks if the candidate's response is not worthy of credit according to the marking criteria.
- When examiners are in doubt regarding the application of the marking criteria 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.
- Handwriting may make it difficult to see if spelling, punctuation and grammar are correct. Examiners must make every effort to assess spelling, punctuation and grammar fairly and if they genuinely cannot make an assessment, the team leader must be consulted.
- Specialist terms do not always require the use of complex terminology but the vocabulary used should be appropriate to the subject and the question.
- Work by candidates with an amanuensis, scribe or typed script should be assessed for spelling, punctuation and grammar.
- Examiners are advised to consider the marking criteria in the following way:
  - How well does the response communicate the meaning?
  - What range of specialist terms is used?
  - How accurate is the spelling, punctuation and grammar?

Question Number	Answer	Mark
<b>1 (a) (i)</b>	(W)	<b>(1)</b>

Question Number	Answer	Mark
<b>1 (a) (ii)</b>	(B) Constructive	<b>(1)</b>

Question Number	Answer	Mark
<b>1 (b)</b>	<p>In between the crust and the core is a layer known as the MANTLE.</p> <p>As the rock here heats and cools, CONVECTION currents are created.</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>1 (c)</b>	<p>As the question refers to future earthquakes – candidate responses must have identified preparations / long term responses to achieve full marks.</p> <p>1 mark for identifying an appropriate action. Additional mark(s) awarded for extending statements.</p> <p>e.g. New building laws are introduced (1 mark) to ensure buildings are strong enough to survive an earthquake (1 mark) this may involve added steel bar supports (1 mark).</p> <p>e.g. Earthquake drills may be introduced (1 mark) to make sure everyone knows what to do when an earthquake hits (1 mark) such as getting underneath a strong table (1 mark).</p> <p>Reasons are likely to include:</p> <ul style="list-style-type: none"> <li>• New construction rules</li> <li>• Evacuation routes</li> <li>• Emergency drills</li> <li>• Planning laws to restrict building in danger zones</li> <li>• More investment in prediction technology</li> <li>• Education programmes</li> <li>• Construction of emergency shelters</li> <li>• Improved sea defences in regions affected by tsunamis</li> <li>• New health and safety laws – immediate gas cut-offs etc...</li> </ul> <p>If only one hazard has been identified, maximum mark 3.</p> <p>Do not credit candidates who identify responses - i.e. an action taken during or immediately after the earthquake.</p> <p style="text-align: right;">(2+2, or 3+1)</p>	<b>(4)</b>

Question Number	Answer	Mark
<b>2(a)(i)</b>	(B) increased by 100 ppm	<b>(1)</b>

Question Number	Answer	Mark
<b>2(a)(ii)</b>	(D) Methane	<b>(1)</b>

Question Number	Answer	Mark
<b>2(b)</b>	<p>1 mark for identifying a valid reason. Additional mark for an extending statement.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• Burning more fossil fuels (1) in power stations and transport (1).</li> <li>• Increased car ownership (1) using more petrol (1)</li> <li>• More demand for energy consuming appliances (1) e.g. tumble driers and air conditioning (1).</li> <li>• Deforestation (1) has reduced the amount of CO<sub>2</sub> captured (1).</li> <li>• Burning of Forest during clearance (1) releases trapped CO<sub>2</sub> (1)</li> <li>• Increased global population (1) resulting in greater demand for energy consuming appliances (1).</li> <li>• Economic development (1) leading to more demand for appliances (1)</li> <li>• Increasing use of concrete in construction (1).</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>2(c)</b>	<p>1 mark for identifying an appropriate challenge. Additional mark(s) awarded for extending statements.</p> <p>e.g. British summers will become hotter (1 mark) this could lead to more cases of heat stroke (1 mark) putting extra demands on the NHS (1 mark).</p> <p>e.g. Climate change could lead to higher sea levels (1 mark) this could lead to coastal flooding (1 mark) and the need for expensive flood defences (1 mark).</p> <p>Reasons are likely to include:</p> <ul style="list-style-type: none"> <li>• Impacts on health – sun stroke / skin cancer / introduction of tropical diseases.</li> <li>• Problems for agriculture – traditional crops not suitable for warmer climate. New crops may need to be introduced.</li> <li>• Some areas may experience frequent drought – SE England</li> <li>• Stormier weather could result in regular flooding</li> <li>• Higher sea levels could threaten coastal zones and estuarial cities.</li> <li>• Less snow in the Scottish uplands affecting the winter sports industry.</li> </ul> <p>If only one challenge has been identified, maximum mark 3.</p> <p>Question refers to UK... if the focus is incorrect or not clear, maximum mark 3.</p> <p style="text-align: right;">(3+1 or 2+2)</p>	<b>(4)</b>



Question Number	Answer	Mark
<b>3(a)</b>	The biome which covers the largest area in Africa is SAVANNA.  North of the equator, the biome with the smallest area is MEDITERRANEAN SCRUB.	<b>(2)</b>

Question Number	Answer	Mark
<b>3(b)</b>	1 mark for identifying a valid reason. Additional mark for an extending statement.  Common answers likely to include: <ul style="list-style-type: none"> <li>• Sun's rays are most intense (1) leading to higher temperatures (1)</li> <li>• Low pressure systems (1) result in heavy rainfall (1)</li> <li>• Sunny and wet climate (1) can support a variety of vegetation (1).</li> <li>• No winter on the equator (1) so plants can grow all year round (1).</li> <li>• High sunlight levels (1) resulting in more photosynthesis (1)</li> <li>• Higher temperatures (1) promoting plant germination / fruit ripening (1).</li> </ul> <p style="text-align: right;">(2x1)</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>3(c)</b>	<p>1 mark for identifying a valid management measure. Additional mark(s) awarded for extending statements.</p> <p>e.g. establish national parks (1 mark) to control construction (1 mark) and to ensure economic activities are sustainable (1 mark).</p> <p>e.g. Countries signed the Ramsar convention (1 mark) to protect endangered wetlands (1 mark).</p> <p>Common management measures likely to include:</p> <ul style="list-style-type: none"> <li>• National Parks – legal status given to designated regions to protect habitats and wildlife.</li> <li>• Trade Agreements – CITES (Convention on International trade in endangered species) signed by 176 countries. Purposed to prevent trade of items made from endangered species, e.g. ivory products or crocodile skin footwear.</li> <li>• Biodiversity Action Plans – Designed to protect native /natural vegetation in areas where habitats and wildlife are under threat.</li> <li>• Global Treaties – The Ramsar Convention on Wetlands aimed to provide special protection status to endangered wetlands in 163 countries.</li> <li>• Sustainable resource management – re-planting projects, selective logging, quota systems.</li> <li>• Eco-tourism resorts – tourism projects designed to have minimal impact on the environment whilst raising finance for 'green' initiatives.</li> <li>• World Heritage Sites – are monitored by the UN who works with the local government and private owners to manage the environment.</li> <li>• Nature reserves – restrict access to prevent endangered species from being harmed / disturbed.</li> </ul> <p>If only one method has been identified, maximum mark 3.</p> <p style="text-align: right;">(3+1 or 2+2)</p>	<b>(4)</b>

Question Number	Answer	Mark
<b>4(a)</b>	<p>1 mark for each valid reason.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• Tank was built by the villagers (Resource)</li> <li>• Tank is made from clay found in the local area (Resource)</li> <li>• Rainwater is collected (Resource)</li> <li>• Easy for locals to maintain</li> <li>• Does not require expensive technology or fuel to run</li> <li>• Affordable</li> <li>• Few skills needed to construct or maintain.</li> <li>• Local solution, reduces time spent collecting water.</li> <li>• Renewable water source.</li> </ul> <p>NB: Do not allow statements referring to the Pumpkin Tank being an example of intermediate technology, as this is the title of the resource.</p> <p style="text-align: right;">(2x1)</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>4(b)</b>	<p>1 mark for identifying a valid reason. Addition mark awarded for providing an extending statement.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• Population growth has resulted in there no longer being enough water in the local rivers to meet demand.</li> <li>• Over-extraction for irrigation/industry (e.g. coca cola plant) has led to water shortages downstream.</li> <li>• Climate change has resulted in some regions becoming drier and no longer having sufficient rainfall to meet their needs.</li> <li>• Water management projects designed to provide some areas with water have sometimes reduced the amount of water reaching alternative destinations.</li> <li>• Pollution of water courses has resulted in river water no longer being fit to drink, severely reducing supply.</li> <li>• Poor water management or a lack of finance to purchase or update water management projects.</li> <li>• Disruption of supplies resulting from war, political instability or terrorism.</li> </ul> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>4(c)</b>	<p>1 mark for identifying an appropriate problem. Additional mark(s) awarded for extending statements.</p> <p>e.g. When the 3 Gorges dam was built fish were prevented from migrating upstream (1 mark), this affected local fishermen (1 mark) and forced some to look for alternative work (1 mark).</p> <p>e.g. When the reservoir was created a large area of land was flooded (1 mark). 1200 villages were lost (1 mark) and important cultural sites destroyed (1 mark).</p> <p>Common problems are likely to include:</p> <ul style="list-style-type: none"> <li>• Reservoir floods land</li> <li>• Settlements may need to be abandoned</li> <li>• Expensive to construct</li> <li>• Concrete manufacture releases carbon dioxide</li> <li>• Damages river / wetland habitats</li> <li>• Silt gets trapped behind the dam</li> <li>• Can prevent wildlife (e.g. salmon) migrations</li> <li>• Important cultural sites may be lost</li> <li>• Visual pollution</li> <li>• Potential new risks – earthquakes damaging dam could lead to widespread flooding.</li> <li>• CO<sub>2</sub> from concrete</li> <li>• Local issues during construction.</li> </ul> <p>If only one problem has been identified, maximum mark 3.</p> <p>If statements don't appear to relate to the selected project, maximum mark 3.</p> <p style="text-align: right;">(3+1 or 2+2)</p>	<b>(4)</b>

Question Number	Answer	Mark
<b>5(a)(i)</b>	Groyne (accept all spellings)	<b>(1)</b>

Question Number	Answer	Mark
<b>5(a)(ii)</b>	<p>1 mark for each valid response.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• Maintains the beach – important tourist attraction</li> <li>• Limits/stops longshore drift</li> <li>• Effective form of coastal protection</li> <li>• Not too ugly – can be built from natural materials</li> <li>• Beach access isn't restricted</li> <li>• Cheaper than alternatives</li> <li>• Can create sheltered zones ideal for picnics / sunbathing</li> <li>• Relatively easy to construct.</li> </ul> <p style="text-align: right;">(2x1)</p>	<b>(2)</b>

Question Number	Indicative content	
<b>5(b)</b>	<p>Physical features:</p> <p>Hard Rock Coastlines</p> <ul style="list-style-type: none"> <li>• Steep cliffs / Rugged landscape</li> <li>• Bare cliff face with little vegetation</li> <li>• Headlands and coves</li> <li>• A number of distinctive landforms – Arches, stacks &amp; wave cut platforms.</li> <li>• Loose rocks at base</li> </ul> <p>Soft Rock Coastlines</p> <ul style="list-style-type: none"> <li>• Cliffs are less steep</li> <li>• Evidence of recent mass movement</li> <li>• Rapid rates of erosion</li> <li>• Mud and sand at base</li> </ul> <p>Human features:</p> <ul style="list-style-type: none"> <li>• Coastal defences</li> <li>• Promenade development</li> <li>• Piers</li> </ul>	
Level	Mark	Descriptor
	0	No rewardable material
<b>Level 1</b>	1-2	<p>Simple statement(s). Identifies at least one characteristic of either a hard or soft rock. Credit examples of rock types – e.g. soft (clay, boulder clay); hard (Granite, limestone, Chalk).</p> <p>e.g. Near Whitby there are steep cliffs. (1 mark)</p>
<b>Level 2</b>	3-4	<p>A hard or soft rock coastline has been named. Two or more features have been identified. Some statements are linked or elaborated. Reasonable use of geographical terms.</p> <p>e.g. Christchurch is a soft rock coastline. The cliffs here are collapsing into the sea. There are lots of landslides where erosion has caused the cliffs to slump (4 marks)</p>
<b>Level 3</b>	5-6	<p>Answer is focused on a specific hard or soft rock coastline. Detailed, well developed answer. At least two features have been clearly described. Answer includes a good range of geographical terms. <u>Features are clearly linked to the identified rock type.</u></p> <p>e.g. Flamborough head is made of hard rock. The coastline here has a number of distinctive features. Erosion has created a wave cut platform and has enlarged a number of cracks in the rock into caves. The cliff face is steep and rugged. At the base there are large boulders and rocks which once formed part of the cliff. (6 marks).</p>

Question Number	Answer	Mark
<b>6(a)</b>	Flood Plain	<b>(1)</b>

Question Number	Answer	Mark
<b>6(b)</b>	<p>1 mark for each valid response.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• deeper</li> <li>• wider</li> <li>• faster</li> <li>• smoother</li> <li>• less steep</li> <li>• curvier</li> <li>• greater discharge</li> <li>• more bedload</li> <li>• smaller bedload</li> <li>• smoother bedload</li> </ul> <p>NB: Do not allow references to different landforms.</p> <p style="text-align: right;">(2 x 1)</p>	<b>(2)</b>

Question Number	Indicative content	
<b>6(c)</b>	<p>Flood defence will vary according to the candidate's chosen location</p> <p>Common responses are likely to include:</p> <ul style="list-style-type: none"> <li>• Diversion Channel – New channel constructed to divert river water away from city centre.</li> <li>• Dam – Barrier built across the river to hold back water, creating a reservoir. Water is released at a controlled rate.</li> <li>• Channel alterations – River widened or deepened to allow the channel to hold a greater quantity of water.</li> <li>• Afforestation – Planting trees to increase interception and transpiration.</li> <li>• Flood plain zoning – Introduce planning rules to prevent construction on sites likely to flood.</li> </ul> <p>NB: Focus of question is flood defences (do not credit forecasting, warning systems, education etc...).</p>	
Level	Mark	Descriptor
	0	No rewardable material
<b>Level 1</b>	1-2	<p>At least one flood defence has been identified. Generic / simple statement(s).</p> <p>e.g. The banks of the river have been raised (1 mark).</p>
<b>Level 2</b>	3-4	<p>An appropriate location has been identified. At least one flood defence have been identified and developed with linked or elaborated statements. Reasonable use of geographical terms.</p> <p>e.g. In Preston the channel has been widened and concrete walls have been built either side of the River Ribble to make the channel bigger so more water can be held without flooding. (4 marks)</p>
<b>Level 3</b>	5-6	<p><u>Clearly focused on the named region.</u> Detailed, well developed answer. At least two flood defences have been described and their impact outlined. Geographical terms have been effectively applied.</p> <p>e.g. In Preston the area next to the river has been zoned, this area has special planning laws preventing any construction. When the river rises this farmland is flooded but no buildings are damaged. In Frenchwood, where houses have been built next to the river, large concrete walls have been added to increase the channel's size and stop the flood water from over flowing. (6 marks)</p>



Question Number	Answer	Mark
<b>7(a)(i)</b>	<p>1 mark for an appropriate statement:</p> <ul style="list-style-type: none"> <li>• What animal eats what (also allow named examples)</li> <li>• The flow of energy through an ecosystem.</li> <li>• The sun is the source of all life.</li> <li>• Which animals are producers / consumers.</li> </ul>	<b>(1)</b>

Question Number	Answer	Mark
<b>7(a)(ii)</b>	<p>1 mark for each appropriate response.</p> <p>Common answers likely to include:</p> <ul style="list-style-type: none"> <li>• Decrease in the population of sharks</li> <li>• Less for sharks</li> <li>• Sharks will eat more tuna and squid</li> <li>• Increase in population in copepods</li> <li>• Less copepods eaten as prey</li> </ul> <p>If the candidate has already identified the increase in copepods then the second mark could be:</p> <ul style="list-style-type: none"> <li>• Larger copepods population could lead to a reduction in plankton.</li> <li>• Larger copepods population could lead to an increase in Lantern Fish.</li> </ul> <p>If the candidate has already identified the decrease in sharks then the second mark could be:</p> <ul style="list-style-type: none"> <li>• Smaller shark populations could to an increase in Tuna and Squid.</li> </ul> <p style="text-align: right;">(2x1)</p>	<b>(2)</b>

Question Number	Indicative content	
<b>7(b)</b>	<p>NB: Named locations can be at a regional or local scale.</p> <ul style="list-style-type: none"> <li>• St Lucia introduced a community-based coastline management programme in 1986. 19 areas (including reefs and mangroves) were declared Marine Reserve Areas. These areas have been developed as ecotourism resorts to provide local communities with new employment opportunities which enhance rather than destroy the coastline.</li> <li>• The EU has introduced a fisheries policy for all its member states in an attempt to revive fish stocks. Each year a limit is placed on the number of fish from each species that can be caught, this quota is based on an annual 'state of stock' survey. The EU has also designated some regions as no-take zones for species particularly under threat e.g. North Sea Cod.</li> </ul>	
Level	Mark	Descriptor
	0	No rewardable material.
<b>Level 1</b>	1-2	<p>Candidate has identified (i) an action, or (ii) a reason why marine management is needed. Generic statements – simple descriptions.</p> <p>E.g. Marine ecosystems can be managed by introducing zoning schemes to stop fish extinctions (2).</p>
<b>Level 2</b>	3-4	<p>An appropriate named location has been identified (can be small or large scale). At least one action has been described. Some linked or elaborated statements. Reasonable use of geographical terms.</p> <p>E.g. In St Lucia marine reserves were set up to protect important ecosystems such as coral reefs. These reserves prevented damaging activities such as fishing. (3 marks).</p>
<b>Level 3</b>	5-6	<p>Detailed, well developed answer. <u>Answer must be clearly focused on the named region.</u> Geographical terms have been effectively applied. At least one action has been described in detail.</p> <p>E.g. In St Lucia reserves were established to protect endangered ecosystems, including coral reefs and mangroves. These reserves restricted fishing by giving out permits and quotas. They also banned the use of mosquito pesticides as these chemicals often poisoned wildlife, causing food webs to collapse (6 marks).</p>
Level	Mark	Descriptor
<b>Level 0</b>	0	No acceptable response.
<b>Level 1</b>	1-2	Some suggestions as to the different information required. Sources not clearly identified. Very basic use of geographical terminology, spelling, punctuation and grammar.

<b>Level 2</b>	3-4	Describes some research linked to growth and/or population. Likely to be unbalanced in coverage. Generally clearly communicated, but with limited use of geographical terminology. Candidates spell, punctuate and use the rules of grammar with considerable accuracy.
<b>Level 3</b>	5-6	Clearly outlined, workable research programme. Sources identified and appropriate for both growth and population structure. Well communicated with good use of geographical terminology, spelling, punctuation and grammar.
<b>SPaG Level 0</b>	0	Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question.
<b>SPaG Level 1</b>	1	Threshold performance Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
<b>SPaG Level 2</b>	2	Intermediate performance Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
<b>SPaG Level 3</b>	3	High performance Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question Number	Answer	Mark
<b>8(a)(i)</b>	<p>1 mark for an appropriate response.</p> <p>Hot Arid</p> <ul style="list-style-type: none"> <li>• Crops are irrigated</li> <li>• Special drought resistant crops are grown</li> <li>• Water is pumped from aquifers to use on the land</li> <li>• Farms are large to avoid over-grazing</li> <li>• Pastoral animals are herded to prevent one location being over-grazed.</li> <li>• Crops are grown when the climate is most suitable – often during the winter.</li> <li>• Use of intermediate technology, such as diguettes</li> </ul> <p>Polar</p> <ul style="list-style-type: none"> <li>• Crops are grown in greenhouses</li> <li>• Ultra-violet lamps are used to allow growth even during the dark winter.</li> <li>• Farmers only grow hardy crops capable of surviving low temperatures.</li> <li>• Fleeces are used to protect crops against frosts.</li> <li>• Animals are kept inside during the cold winters.</li> <li>• Animals are frequently moved to avoid over-grazing.</li> </ul> <p>NB: Do not credit plant adaptations.</p>	<b>(1)</b>

Question Number	Answer	Mark
<b>8(a)(ii)</b>	<p>1 mark for each appropriate response.</p> <p>Hot Arid</p> <ul style="list-style-type: none"> <li>• Crop failure due to drought</li> <li>• High temperatures can damage plants</li> <li>• Few animals can graze on the tough vegetation</li> <li>• Climate ideal for locusts.</li> <li>• Cold nights can damage crops</li> <li>• High temperatures can make it difficult for the farmer to work his land.</li> <li>• Desertification.</li> <li>• Soil erosion.</li> </ul> <p>Polar</p> <ul style="list-style-type: none"> <li>• Frozen ground can prevent ploughing</li> <li>• Snow cover can destroy crops</li> <li>• Frosts can damage crops</li> <li>• Few animals can graze on the tough vegetation</li> <li>• Short growing seasons limits crop choice</li> <li>• Polar regions can become marshy and flooded during the spring melt.</li> <li>• Low temperatures can make it difficult for the farmer to work his land.</li> </ul> <p style="text-align: right;">(2x1)</p>	<b>(2)</b>

Question Number	Indicative content	
<b>8(b)</b>	<p>Potential impacts of climate change on the people of extreme climates:</p> <p>Hot arid</p> <ul style="list-style-type: none"> <li>• Drought related crop failure leading to food shortages</li> <li>• Increase risk to settlement from bushfires</li> <li>• Animal farming made more difficult due to poor pasture.</li> <li>• Desertification may cause migration</li> <li>• Nomadic people may be forced to move into towns.</li> <li>• Old sand dune systems in the Sahel could re-activate and migrate, threatening agricultural lands and settlements.</li> </ul> <p>Arctic</p> <ul style="list-style-type: none"> <li>• Changes in sea ice cover - impact on fishing</li> <li>• Melting ice cover affecting access</li> <li>• Permafrost melting – flooding and building collapse</li> <li>• Animal migration affecting hunting seasons</li> <li>• Glacier retreat and loss of snow in some regions could have a serious impact on tourism, a major industry in many Arctic regions.</li> </ul>	
Level	Mark	Descriptor
	0	No rewardable material
<b>Level 1</b>	1-2	<p>An impact of climate change has been identified. Generic statements – simple descriptions.</p> <p>E.g. Melting ice could lead to flooding.(1 mark)</p>
<b>Level 2</b>	3-4	<p>At least one impact of climate change has been described. Some linked or elaborated statements. Reasonable use of geographical terms. Student has stated whether the answer is focused on a hot-arid or polar region, or given a named region.</p> <p>E.g. The Yup'ik are a tribe who live in Alaska. The Yup'ik are worried that climate change will make the ice too thin to support their hunters dogs and sleighs.(3 marks)</p>
<b>Level 3</b>	5-6	<p>Detailed, well developed answer. <u>Answer must be clearly focused on the named region.</u> Geographical terms have been effectively applied. At least one threat has been described in detail. <u>Answer must be future focused.</u></p> <p>E.g. The Sahel is likely to be badly affected by climate change. Many villages in Mali are worried that recent droughts will become more common, making farming extreme difficult. Crop failure could become common and famine frequent. The local people will be forced to migrate to wetter areas and this could lead to their culture being lost (6 marks).</p>
Level	Mark	Descriptor
<b>Level 0</b>	0	No acceptable response.

<b>Level 1</b>	1-2	Some suggestions as to the different information required. Sources not clearly identified. Very basic use of geographical terminology, spelling, punctuation and grammar.
<b>Level 2</b>	3-4	Describes some research linked to growth and/or population. Likely to be unbalanced in coverage. Generally clearly communicated, but with limited use of geographical terminology. Candidates spell, punctuate and use the rules of grammar with considerable accuracy.
<b>Level 3</b>	5-6	Clearly outlined, workable research programme. Sources identified and appropriate for both growth and population structure. Well communicated with good use of geographical terminology, spelling, punctuation and grammar.
<b>SPaG Level 0</b>	0	Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question.
<b>SPaG Level 1</b>	1	Threshold performance Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
<b>SPaG Level 2</b>	2	Intermediate performance Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
<b>SPaG Level 3</b>	3	High performance Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

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