



**General Certificate of Secondary Education
June 2010**

Geography B 40352F

Foundation Tier

Unit 2: Hostile World

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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General Certificate of Secondary Education

AQA GEOGRAPHY B

FOUNDATION TIER MARKING SCHEME

UNIT 2 (40352F)

GENERAL GUIDANCE FOR GCSE GEOGRAPHY ASSISTANT EXAMINERS

Quality of Written Communication

Where candidates are required to produce extended written material in English, they will be assessed on the quality of written communication.

Candidates will be required to:

- present relevant information in a form and style that suits its purpose;
- ensure that text is legible and that spelling, punctuation and grammar are accurate;
- use specialist vocabulary where appropriate.

Levels Marking – General Criteria

Where answers are assessed using a level of response marking system the following general criteria should be used.

Where an answer fails to achieve Level 1, zero marks should be given.

Level 1: Basic

Knowledge of basic information

Simple understanding

Few links; limited detail; uses a limited range of specialist terms

Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.

Level 2: Clear

Knowledge of accurate information

Clear understanding

Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate

Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.

Annotation of Scripts

One tick equals one mark, except where answers are levels marked (where no ticks should be used). Each tick should be positioned in the part of the answer, which is thought to be credit worthy.

Where an answer is levels marked the examiner should provide evidence of the level achieved by means of annotating 'L1' or 'L2' in the left hand margin.

The consequent mark within this level should appear in the right-hand margin.

Ticks must **not** be used where an answer is levels marked.

Examiners should add their own brief justification for the mark awarded e.g. *Just L2, reasonably accurate knowledge or some clear understanding.*

General Advice

Marks for each sub-section should be added in the right-hand margin next to the maximum mark available, which is shown in brackets. All marks should then be totalled in the box at the end of each question in the right-hand margin. The totals should then be transferred to the boxes on the front cover of the question paper. These should be totalled. The grand total should be added to the top right-hand corner of the front cover. No half marks should be used.

It is important to recognise that many of the answers shown within this mark scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally creditworthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

Diagrams are legitimate responses to many questions and should be credited as appropriate. However, contents which duplicate written material or vice versa should not be credited.

Quality of Written Communication (QWC) is part of the award of marks in levels marked answers only. In levels marked answers the quality of the geography is assessed and a level and mark awarded according to the geography. As is sometimes the case, the geography may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark within that level. In this case, the examiner should consider the QWC of the answer. QWC that fulfils the criteria for the level should lead to the rise in the mark but where the QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate. In cases where QWC has been used in the award of marks, the examiner should indicate this with QWC and arrows that indicate either an upward or downward trend according to its impact on the final award of the mark.

SECTION A – LIVING WITH NATURAL HAZARDS

Question 1

1(a) (i)	1x1 For bar correctly positioned at 24%	1 mark
1(a) (ii)	1x1 7%	1 mark
1(b) (i)	3x1 Islands, southwest, narrow	3 marks
1(b) (ii)	2x1 Airline passengers stranded/flights cancelled, biologist hut destroyed, ash covered large areas of nearby wildlife reserves	2 marks
1(b) (iii)	Levels of response Level 1 (Basic) 1–3 marks Refers to Figure 2, names plates, gives a basic idea of plate movement. Elaboration is very limited. <i>Pacific plate and North American plate moving towards each other. One plate pushed below another. As plates move there are shock waves.</i> <i>As plates move magma escapes and forms volcanoes.</i> Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors. Level 2 (Clear) 4–5 marks Gives clear indication of process, linking statements. <i>Pacific plate subducted beneath North American plate. As plates move, they snag and tension builds up. A sudden movement sends out shock waves, which causes earthquakes in the Aleutian islands.</i> <i>As plates move it causes friction, which melts the rock. This red-hot magma escapes to the surface and is erupted to form volcanoes such as Kasatochi in the Aleutian islands.</i> Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	5 marks

1(c)	<p>Levels of response</p> <p>Level 1 (Basic) 1–3 marks Simple statements without development of ideas. <i>E.g. they should strengthen buildings to make them earthquake proof. They should teach the population what do if an earthquake strikes.</i> Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.</p> <p>Level 2 (Clear) 4–5 marks Clear description of methods. <i>E.g. they should build earthquake proof buildings with X structures to prevent twisting. They should teach the population what to do if an earthquake strikes by having dedicated days when people learn drills.</i> Development may be case study examples. Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.</p>	5 marks
1(d)	<p>2x1 People cannot afford to move away. Many buildings are designed to absorb shockwaves.</p>	2 marks
Total for Question 1: 19 marks		

Question 2

2 (a)	2x1 C, D	2 marks
2 (b)	3x1 B, A, D, C (4 = 3 marks, 3 = 2 marks, 2/1 = 1 mark)	3 marks
2 (c) (i)	3x1 North, 24, Mississippi (MS)	3 marks
2 (c) (ii)	1x1 Decrease (less than 63 kph)	1 mark
2 (c) (iii)	1+1 Yes: forecasts can be inaccurate (1) the storm could suddenly change direction (1). No: the forecast shows that the Texas coast lies outside the 3/5-day cone of uncertainty (1) the strongest winds will not affect them (1). Don't evacuate, just prepare homes (1) evacuation is expensive (1). A yes/no answer is acceptable. e.g's 'Hurricane Hanna hit Haiti unexpectedly' as development.	2 marks
2 (d)	2x1 Listen to the radio: up to date information on course/strength of tropical storm, information on evacuation notices, information on safe evacuation routes etc. Protect your home: turn off gas/electricity, fasten roof straps, put shutters/board up windows, secure large/heavy items of furniture, windproof tiles, water resistant windows, strengthened building structures, ground floor walls of buildings are designed to wash out etc. Have a family action plan: discuss escape routes from home, agree on a meeting/contact place/person if separated, decide what to do with pets, agree on a 'safe' area in the home etc. Get an emergency kit: put together and store items which would help during a tropical storm e.g. torch, batteries, wind up radio, bottled water, first aid kit etc.	2 marks

<p>2 (e)</p>	<p>Levels of response</p> <p>Level 1 (Basic) 1–4 marks Yes: Lifts information from Figure 7. <i>There are more tropical storms now/fewer in the past. There are more and stronger hurricanes (or quotes figures).</i> Makes simple undeveloped statement <i>E.g. The climate is changing as the earth heats up.</i> No: Lifts information from Figure 7. <i>Some scientists say there will be fewer tropical storms. There are periods when we get fewer storms.</i> Makes simple undeveloped statement <i>E.g. Climate change is not affecting the number of tropical storms, it is part of a natural cycle.</i> Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.</p> <p>Level 2 (Clear) 5–6 marks Goes beyond Figure 7 and backs up with own knowledge and/or clearly uses the data to develop an argument. Development could be case study examples. Could argue for a balanced view. Yes: <i>E.g. The number of severe tropical storms has increased since 1989, this is because of heating of the oceans due to global warming meaning that more tropical storms occur, especially more severe ones.</i> No: <i>E.g. there is a natural cycle of increased activity; the number of tropical storms will fall again in a few years. The information about increased storms is inaccurate as in the past there may have been more storms than we thought we just didn't record them.</i> Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.</p>	<p>6 marks</p>
<p>Total for Question 2: 19 marks</p>		

Question 3

3 (a) (i)	1x1 Graph B	1 mark
3 (a) (ii)	1x1 Northern Territory	1 mark
3 (a) (iii)	2x1 Most wildfires occur in northern Australia. Tasmania has few wildfires.	2 marks
3 (a) (iv)	2 x 1+1 (or 1+1+1+1 for well developed answers to one point) References to dry climate/Tropic and dry vegetation, prevailing dry wind etc. <i>E.g. In an area of dry savannah/grassland (1), which will ignite very easily (1). Winds do not carry moisture (1) and will fan/spread the fires easily (1).</i> Accept human factors.	4 marks
3 (b) (i)	1x1 250 days	1 mark
3 (b) (ii)	1x1 Spring-summer temperatures increase / the number of wildfires increase. (both elements)	1 mark
3 (c)	2x1 More people living/holidaying in semi arid areas, more properties built in semi arid areas, more possessions (higher insurance claims). Accept more/more intense/longer lasting wildfires – once only. Accept increased cost of firefighting.	2 marks
Total for Question 3: 12 marks		

SECTION B – THE CHALLENGE OF EXTREME ENVIRONMENTS

Question 4

4 (a) (i)	1x1 For bar correctly positioned at 2.5mm	1 mark
4 (a) (ii)	1x1 -26°C	1 mark
4 (b) (i)	3x1 Prudhoe Bay, pipeline, south.	3 marks
4 (b) (ii)	<p>Levels of response</p> <p>Level 1 (Basic) 1–3 marks Refers to Figure 11 gives a basic idea of activity linked to problem in a simple fashion. <i>E.g. Oil tankers could sink and cause oil spills. Pipeline could leak and cause oil spills. Animals such as caribou will have migration routes disrupted. Wildlife refuge will be damaged. Local people will have to change their way of life. (Accept positive effects on economy/jobs)</i> Elaboration is very limited. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.</p> <p>Level 2 (Clear) 4–5 marks Gives clear indication of effects, by developing the point. Development could be case study examples. <i>E.g. Oil tankers could sink and cause oil spills killing seabirds and destroying local fisheries. Pipeline could leak and cause oil spills destroying the delicate tundra ecosystem. Animals such as caribou will have migration routes disrupted as they cannot cross the TAP, their breeding grounds will be disturbed. Etc.</i> Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.</p> <p>Just people/environment = max 4.</p>	5 marks
4 (c)	2x1 More visitors/cruises/more landing sites – threats from shipwrecks, oil spills – threats to wildlife, disturbance. Lots of scientific bases - machinery and equipment left on ice sheets, sewage put in sea. Should give a simple idea of the nature of the threat. Accept global warming + effect e.g. will melt the ice.	2 marks

4 (d)	<p>2x1</p> <p>Antarctica is valuable for scientific research.</p> <p>Antarctica is the last great wilderness left on earth.</p>	2 marks
4 (e)	<p>Levels of response</p> <p>Level 1 (Basic) 1–3 marks</p> <p>Simple statements without development of ideas. Gives scheme or method. <i>E.g. An International Agreement protects Antarctica. Antarctic Special Protected Areas have been set up. Strict regulations on waste from scientific bases. Mining will not be allowed. Seal hunting is strictly controlled. Fishing boats have to limit and report their catch. Quotas on the number of tourists. Etc.</i></p> <p>Knowledge of basic information.</p> <p>Simple understanding.</p> <p>Few links; limited detail; uses a limited range of specialist terms.</p> <p>Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.</p> <p>Level 2 (Clear) 4–5 marks</p> <p>Develops the idea to show how the scheme or method works. <i>E.g. An International Agreement protects Antarctica. The Antarctic Treaty laid down rules governing human activity, which became law in 1998. Antarctic Special Protected Areas have been set up. Areas with great scientific value have a very strict management plan. A permit is needed to enter. Strict regulations on waste from scientific bases. Most waste is now taken away from the Antarctic. Mining will not be allowed for at least the next 50 years due to campaigns by pressure groups. Seal hunting is strictly controlled. Some species are given special protection. Fishing boats have to limit and report their catch so that the impact on the whole ecosystem can be assessed. Quotas on the number of tourists and visiting boats must be small. Etc.</i></p> <p>Knowledge of accurate information.</p> <p>Clear understanding.</p> <p>Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate.</p> <p>Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.</p> <p>Global warming/CO₂ emissions = max L1. There must be an appropriate context.</p>	5 marks
Total for Question 4: 19 marks		

Question 5

5 (a)	2x1 B, C.	2 marks
5 (b)	3x1 D, A, C, B (4=3 marks, 3=2 marks, 2/1=1 mark).	3 marks
5 (c) (i)	2x1 Most, north coast	2 marks
5 (c) (ii)	1x1 50%	1 mark
5 (c) (iii)	1x1 Decrease, only 33% left. 2/3 is gone	1 mark
5 (c) (iv)	2x1 (or 1+1) Increased flooding, threat of mudslides etc (due to increased surface run-off)	2 marks
5 (d)	2x1 Reforestation: Quick growing trees are planted (1) leaves intercept rainfall etc (1) + effects (1) e.g. reduce flooding/erosion etc. Accept references to maintaining local climate (1) + effects (1) e.g. evapotranspiration keeps moisture in atmosphere. Falling leaves return nutrients to soil (1) soil keeps its fertility and trees will grow etc (1). Accept agroforestry e.g. trees and a variety of crops are planted, some of which help to return nutrients to the soil (1). Mimics the layers and diversity of the natural rainforest (1). Serve as a 'buffer zone', surrounding and protecting the remaining rainforest (1) etc. Conservation: Credit ideas and developed points for the effects of; nature/rainforest reserves, carbon credits, logging permits/limits or quotas, butterfly and orchid farms/sustainable forest employment schemes etc. Also, accept ideas about restoring damaged areas e.g. Mining companies can be made to agree to a forest restoration program before mining starts (1) otherwise permits are not issued (1). Before mining the topsoil can be removed along with the ash from the burnt trees, this can then be stored and replaced when mining has finished (1). Trees can then be replanted and will grow successfully as the soil still has nutrients (1) etc. (Reafforestation can take place using quick growing local species of trees (1). This provides protective cover from wind and rain (1). ACCEPT ONCE ONLY) (ECOTOURISM as a conservation scheme – ACCEPT ONCE ONLY). Accept schemes that take place outside rainforests that would help with conservation: international agreements, education substitution, recycling, energy conservation etc. Ecotourism: Responsible development and management of tourism, which helps to preserve the environment (1). Tourists become aware of the beauty of the tropical rainforests and understand their	2 marks

	<p>importance. They are then more likely to support their conservation (1). Provides funds for conservation projects (1). Provides jobs for local people (crafts, guides etc) less poverty and less need to deforest area (1) etc.</p> <p>Ethical shopping: A certification label on products shows that it comes from a sustainable source (1) buying these supports local communities and helps with conservation (1). The demand for tropical hardwoods can be reduced by replacing them with alternative materials (1) e.g. plastics or timber from sustainable forests (1) etc.</p> <p>(Accept any case study examples as developed points).</p>	
<p>5 (e)</p>	<p>Levels of response</p> <p>Level 1 (Basic) 1–4 marks Yes: Lifts information from Figure 17. <i>Animal habitat is being destroyed. Local people are forced from their homes. Makes simple undeveloped statement E.g. It is damaging the environment. It is changing the climate. The country is getting richer now.</i> No: Lifts information from Figure 17. <i>The country is still relatively poor (or cites figures). People need the land to grow food. Makes simple undeveloped statement E.g. they have to chop forest down to make money.</i> Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.</p> <p>Level 2 (Clear) 5–6 marks Goes beyond Figure 17 and backs up with own knowledge and clearly uses the data to develop an argument. Development could be case study examples. Could argue for a balanced view. Yes: <i>E.g. Animal habitat is being destroyed, the food chain is disrupted and rare species are being threatened. Local people are forced from their homes, their hunting and farming land is lost and their culture is being destroyed.</i> No: <i>E.g. The country is still relatively poor, it still has a low GNI and the government needs the forest resources to export and make money. 6% of people live in poverty, they need the land to grow food, they have no other way of staying alive.</i> Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.</p>	<p>6 marks</p>
<p>Total for Question 5: 19 marks</p>		

Question 6

6 (a) (i)	1x1 Graph A	1 mark
6 (a) (ii)	1x1 Africa	1 mark
6 (a) (iii)	2x1 Most areas with a very high risk of desertification are between the Tropics. Many areas on the fringe of the Sahara Desert have a very high risk of desertification.	2 marks
6 (b) (i)	1x1 73%	1 mark
6 (b) (ii)	1x1 As population density increases desertification increases. Accept, as desertification increases population density may decline.	1 mark
6 (b) (iii)	2x1+1 Rate of population growth/ population density increasing (or gives figures), therefore land is cleared for agriculture (1), leaving it open to erosion of the soil by wind and rain (1) i.e. explains why deforestation/overgrazing/over cultivation take place and then states effects. (Accept references to poor countries/poverty and how this affects rate of desertification.) Accept rainfall/temperature once.	4 marks
6 (c)	2x1 Less rainfall/higher temperatures/increased evaporation/increased drought. Rainfall becoming more irregular. High temperatures.	2 marks
Total for Question 6: 12 marks		