



General Certificate of Secondary Education

Geography 4035 **Full Course** *Specification B*

Paper 2 – Hostile World
Foundation Tier

Mark Scheme

2011 examination - January series

Post standardisation

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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Set and published by the Assessment and Qualifications Alliance.

General Certificate of Secondary Education

AQA GEOGRAPHY B

FOUNDATION TIER MARKING SCHEME

Paper 2 – Foundation Tier (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.

Level 1 : Basic

Knowledge of basic information
Simple understanding
Little organisation; few links, little or no detail, uses a limited range of specialist terms
Reasonable accuracy in the use of spelling, punctuation and grammar
Text is legible.

Level 2 : Clear

Knowledge of accurate information
Clear understanding
Organised answers, with some linkages, occasional detail/exemplar, has a good range of specialist terms where appropriate
Considerable accuracy in spelling, punctuation and grammar
Text is legible.

N.B. Only Level 1 and 2 descriptors will appear on Foundation marking schemes (front covers).

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, eg *Just L2, reasonably accurate knowledge or some clear understanding.*
- Where an answer fails to achieve Level 1, zero marks should be given.

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 marking 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 credit-worthy. 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		Marks
1(a)	2 x 1 Most earthquakes happened to the east of Japan. No earthquakes greater than 5 on the Richter Scale happened within 50 km of Tokyo.	2 marks
1(b)	<p>Level 1 (Basic) 1–2 marks Refers to Figure 1, names plates or states 'on a plate boundary' = 1 mark, gives a basic idea of plate movement. Elaboration is very limited. <i>Pacific/Philippine plate and Eurasian plate moving towards each other. One plate pushed below another. As plates move there are shock waves.</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) 3–4 marks Gives clear indication of process, linking statements. <i>Pacific/Philippine plate subducted beneath Eurasian plate. As plates move, they snag and tension builds up. A sudden movement sends out shock waves, which causes earthquakes in Japan.</i> Recognition of a destructive plate boundary = L2, but cannot be part of a list of different types of boundary. 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>	4 marks
1(c)(i)	1 x 1 Moderate	1 mark
1(c)(ii)	1 x 1 Away from epicentre, less shaking, shock waves lost energy.	1 mark
1(c)(iii)	4 x 1 – max 1 for <u>each</u> box in table. <u>Primary effects</u> - 12 people died, 358 were injured, homes destroyed, damaged roads, bridge collapsed, dam cracked. <u>Secondary effects</u> – landslides caused car and bus accidents, blocked roads, buried 7 people, communities cut off, motorways closed, trains were stopped. 2,000 passengers were trapped inside three trains for nine and a half hours, 117,000 passengers were delayed, evacuation, homelessness/in shelters. (‘Death’ could be primary or secondary) – credit <u>once</u> only. The effects must be from Figure 2 (or can be inferred from Figure 2)	4 marks
2(a)	4 x 1 30, Equator, northern, Pacific.	4 marks

2(b)	1 x 1 High sea temperatures.	1 mark
2(c)	3 x 1 Poorer country/lower GNI, or less money for mitigation programmes, poor communications/fewer people with Internet access/TV – unable to be warned, flooding on coastal plain, poorly built shacks in shanty towns, houses in villages easily damaged, receives full force of winds, unlike A. Accept less internet users/TVs unqualified – once only	3 marks
2(d)(i)	1 x 1 Correct bar at 5	1 mark
2(d)(ii)	4 x 1 Any change to the overall trend eg increases (1) + use of data (1) and then changes within individual time periods, e.g. fluctuates (1) + use of data (1) e.g. 'in 1980 1 storm, by 1998 3 storms, by 2005 5 storms, they are increasing' (= 3 marks) + reference to fluctuations (= 4 marks) (reject 'the number of tropical storms is increasing <u>each</u> year')	4 marks
2(e)	1 + 1 Reference to global warming (1) (accept climate change – the point could be developed by relating climate change to global warming), changing sea temperatures (1). El Niño type events (1).	2 marks
3(a)(i)	45°C 25°C south east Warragul	4 marks
3(a)(ii)	Level 1 (Basic) 1–4 marks Yes: Lifts information from Figure 6 or makes simple, undeveloped statement. <i>They are caused by drought. They are caused by high temperatures. They are caused by lightning. They spread due to strong winds. The climate is changing.</i> No: Lifts information from Figure 6 or makes simple, undeveloped statement. <i>They are caused by sparks from machinery, power tools, fallen power lines. They are caused by arsonists. They are caused by people being careless with fires/cigarettes.</i> Fires 'get out of hand' without development = L1. 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) 5–6 marks Goes beyond Figure 6 and backs up with own knowledge and/or clearly uses the data to develop an argument. Links the causes together. Development could be case study examples.	6 marks

	<p>Yes: <i>Much of Victoria had a deficiency of rainfall which dries out vegetation, so it easily catches fire. Temperatures reached 45°C which dries out vegetation, so it easily catches fire.</i></p> <p>No: <i>The police knew it was started deliberately by an arsonist; this is not a natural occurrence. People do not extinguish campfires properly, they leave them smouldering and paper or dry leaves can blow onto them and start a fire. People throw lit cigarettes from car windows; these can land on the grass verges and set them alight. The climate is changing due to global warming, which is due to the actions of people.</i></p> <p>Could argue for a balanced view.</p> <p><i>They may be started deliberately by people, but they would not become wildfires unless the climatic conditions meant that they spread easily.</i></p> <p>(Accept references to the effect of topography, lack of windbreaks, fuelling from built up areas etc.)</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>	
3(b)	<p>Level 1 (Basic) 1–3 marks</p> <p>Simple statements without development of ideas.</p> <p><i>There will be loss of life/injury, damage to property/possessions, homelessness. Animal habitats will be destroyed. There will be air pollution from smoke. Water supplies polluted. Costs a lot to clear up. Costs a lot to fight the fire.</i></p> <p>Accept ‘damage will be greater in an LEDC/less in an MEDC.</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>Clear description of effects.</p> <p><i>Atmospheric pollution from smoke contributes to global warming. Damage to property leads to insurance claims and premiums will rise. Forests are destroyed, destroying animal habitats, endangering wildlife.</i></p> <p>Development could be through case study examples.</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>	5 marks
4(a)	<p>2 x 1</p> <p>Cut grass/move firewood/thin trees/clear leaves – less fuel, cut back branches – stop them falling onto house if do ignite, spark arrester – prevent fire starting, remove obstructions – access for emergency services, use materials that do not burn easily – fire retardant</p>	2 marks

	materials – reduce the amount of damage/burning to the house.	
4(b)	2 x 1 or 1+1 Douse fires, dampen unburned areas to stop fire spreading, can drop water in areas inaccessible to ground fire-fighters. Accept 'can speed up operations'.	2 marks
4(c)	<p>Level 1 (Basic) 1–2 marks Simple statements without development of ideas. <i>They could monitor volcanoes. They could monitor tropical storms. They could evacuate the area. TV information programmes.</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) 3–4 marks Clear description of methods. <i>They could monitor volcanoes using satellites to detect any bulges in the mountain. The National Hurricane centre could monitor tropical storms.</i> 'Have an emergency plan so that people know what to do' is too vague for L2. 'Emergency kit' can be developed to L2 by listing >2 items that would be found in such a kit, e.g. torch, batteries, bottled water, radio etc. 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>	4 marks

Section B – The Challenge of Extreme Environments

5(a)(i)	1 x 1 For bar correctly positioned at 8000	1 mark
5(a)(ii)	1 + 1 Reference to increasing (1) use figures (1) e.g. increased by 26,500. The main change is not that the numbers fluctuate, but that they increase.	2 marks
5(b)(i)	4 x 1 1 = -68°C 2 = 9 3 = southerly 4 = Cuverville Island	4 marks
5(b)(ii)	2 x 1 (or 1+1) Higher temperatures than rest of continent/lower temperatures on rest of continent – or gives figures (1). Closest point to S. America (ports) (1). Ice free for part of year (1). Reject 'there is a research base' but accept 'there are many research bases on the peninsular'.	2 marks
5(b)(iii)	2 x 1 Refers to latitude/rays passing through more of the atmosphere/curvature of earth =greater area to heat up, continentality, much of Antarctica is highland, snow cover reflects heat, katabatic winds. Accept global warming.	2 marks
5(c)	4 x 1 (or 1+1 for developed points) Cruises – more landing sites – threats from shipwrecks, oil spills – threats to wildlife, disturbance. Scientific bases - machinery and equipment left on ice sheets, sewage put in sea. Fishing – overfishing, disrupts ecosystem, damages seabed. Accept a general ref to Antarctica is unpolluted and valuable for scientific research and this opportunity would be lost. Antarctica is the last great wilderness left on earth and it will be lost forever.	4 marks
6(a)	3 x 1 1995, decrease, 5000	3 marks
6(b)(i)	1 x 1 Cattle ranching Accept farming	1 mark
6(b)(ii)	1 x 1 30	1 mark
6(b)(iii)	2 x 1+1 <i>Animal habitat is being destroyed (1), the food chain is disrupted and rare species are being threatened (1). Removes supply of nutrients to the soil (1), forest cannot grow back (1). Alters local climate (1), reduces rainfall and land dries out (1).</i> Accept global warming.	4 marks

6(b)(iv)	<p>Level 1 (Basic) 1–2 marks Simple statements without development of ideas. There <u>must</u> be some simple development beyond the key on Figure 13. <i>They can sell forest products.</i> Accept examples of forest products such as timber. Any idea beyond Figure 13. <i>They can export crops, cattle products etc.</i> Accept reference to attracting tourists etc. 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) 3–4 marks Develops statements to give a clear suggestion as to how use of the tropical rainforest environment can increase economic development e.g. <i>Areas could be cleared to grow soya beans, these can then be processed to increase their value and then exported. Ecotourism can be set up in TRF areas and the money brought in can fund development projects.</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>	4 marks
7(a)(i)	1 x 1 Tropic of Cancer & Tropic of Capricorn (Tropics)	1 mark
7(a)(ii)	3 x 1 2,3,5	3 marks
7(a)(iii)	1 x 1 Australian Desert (Accept Kalahari/Namib)	1 mark
7(b)	1 + 1 Refers to latitude (1) /rays passing through less of the atmosphere (1). Curvature of earth (1) smaller area to heat up (1). High pressure belt (1)/descending air/little condensation/few clouds = high levels of surface heating (1).	2 marks
7(c)	<p>Level 1 (Basic) 1–4 marks Simple statements without development of ideas. Simple references to the causes of desertification, either human or natural. These may be taken or inferred from Figure 15. No: <i>Less rainfall, higher temperatures, the climate is changing, part of a natural cycle of climate change.</i> Yes: <i>The population is increasing, people chop down too many trees for fuelwood, people keep too many animals on the land, people grow too many crops on the land, people now live in permanent settlements etc.</i> A list of human activities without reference to pressure = max 2 e.g. cattle ranching, logging, farming etc. Knowledge of basic information.</p>	6 marks

	<p>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 Clear references to the causes of desertification, either human or natural. Clear development of the point i.e. how it leads to desertification. These may be developed from Figure 15. <i>Less rainfall, higher temperatures which leads to increased evaporation/increased drought, or rainfall becoming more irregular. The climate is changing; this is part of a natural cycle of climate change, the area on the fringe of the Sahara used to be much wetter, it may become so again.</i> Or, human factors: <i>There is a rapid rate of population growth/ population density increasing and more people chop down trees for fuelwood/ keep too many animals on the land/ grow too many crops on the land, people now live in permanent settlements which increases the pressure on the surrounding countryside etc.</i> May state a cause and develop the effect of this. <i>E.g. more people chop down trees for fuelwood/ keep too many animals on the land/ grow too many crops on the land which means that the protective cover of vegetation is removed and soil is blown/washed away.</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>	
8(a)	<p>Level 1 (Basic) 1–3 marks Examples do not have to be Alaska. Any cold environment is acceptable. Simple statements without development of ideas. <i>Maintains natural beauty of wilderness, no air/water/land pollution in wilderness, conserves habitats for animals, research helps us to understand threatened environments etc.</i> Or lifts methods straight from Figure 16 with some simple elaboration of how they protect the environment. Accept reduce global warming. 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 development of ideas. <i>No oil drilling is allowed so there will not be any oil spills which means less damage to wildlife.</i> <i>Research helps us to understand the impact of people on a wilderness, this will help us learn how to conserve the area.</i> Examples do not have to be from Alaska. Any cold environment is acceptable.</p>	5 marks

	<p><i>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. 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>	
8(b)	<p>Level 1 (Basic) 1–2 marks</p> <p>If both environments are discussed, mark both and take the highest mark. Simple statements without development of ideas. Gives scheme or method. An area of tropical rainforest –Names a scheme <i>E.g. Agroforestry, selective logging</i> or gives a simple description of a scheme <i>E.g. Trees and a variety of crops are planted, some of which help to return nutrients to the soil. They should not remove all the trees to get the ones they want.</i> <i>E.g. Restore damaged areas, Reforestation/plant new trees. E.g. Ecotourism is the responsible development and management of tourism, which helps to preserve the environment. Ecotourism provides funds for conservation projects. Etc. E.g. Ethical shopping – A certification label on products shows that it comes from a sustainable source. The demand for tropical hardwoods can be reduced by replacing them with alternative materials. Etc.</i> An area at the fringe of a hot desert- <i>E.g. they should plough across hillsides, they should replant trees, they should irrigate the land, they should use ‘magic stones’ etc.</i> Accept ‘plant drought-resistant crops’ as a method of maintaining vegetation cover. 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) 3–4 marks</p> <p>Develops the idea to show how the scheme or method works. An area of tropical rainforest– <i>E.g. Agroforestry mimics the layers and diversity of the natural rainforest. Agroforestry serves as a ‘buffer zone’, surrounding and protects the remaining rainforest. Etc. Reforestation can take place using quick growing local species of trees. Reforestation provides protective cover from wind and rain. Mining companies can be made to agree to a forest restoration program before mining starts otherwise permits are not issued. Before mining the topsoil can be removed along with the ash from the burnt trees, this can then stored and replaced when mining has finished Etc. Ecotourism is the responsible development and management of tourism, which helps to preserve the environment as ecotourism</i></p>	4 marks

	<p><i>provides funds for conservation projects /provides jobs for local people (crafts, guides). Etc. E.g. Ethical shopping - A certification label on products shows that it comes from a sustainable source. The demand for tropical hardwoods can be reduced by substitution – replacing them with alternative materials e.g. plastics or timber from sustainable forests. Etc.</i></p> <p><i>An area at the fringe of a hot desert- E.g. they should use ‘magic stones’ or build small earth bunds, which trap water behind them and allow it to soak into the ground so that plants grow.</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>	
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