



GCSE

GEOGRAPHY

8035/1 Paper 1: Living with the physical environment
Report on the Examination

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General comments

The examination was one hour and 30 minutes long, with a tariff of 88 marks, representing 35% of the total marks for the qualification, covering a range of physical geography content. It comprised three sections, each section covering one topic within the specification and with some limited optionality in Section C. The questions were designed generally to increase in difficulty in each section, culminating in an extended writing question worth either 6 or 9 marks at the end of each question. 3 additional marks were allocated to the extended writing question within Section A. These marks were for correct spelling, punctuation and accurate use of grammar. The questions required students to use and apply a range of skills, including the interpretation of photographs, graphs, maps, text, statistics, diagrams and charts.

Encouragingly the quality of student answers has improved compared with the first sittings of the paper in Summer 2018 and 2019. It is evident that students know the structure of the paper and are able to plan their time accordingly to answer everything asked of them. Examiners felt that students were well prepared and there was a strong sense that both teachers and students were confident with the demands of the paper and assessment objectives, despite all the challenges faced by centres over the past two years. Time management didn't appear to be an issue for students this year, with the vast majority finishing the paper in the time allowed.

The majority found the paper accessible, with students across the whole ability range showing genuine engagement with the questions and associated source materials. For a large proportion of students, the level of language employed in the question paper appeared to present no obvious barriers to comprehension. The nature of the component differentiated between higher and lower ability students fully, with a wide range of marks (from 0-88). Exemplar support, geographical knowledge, understanding and the ability to apply knowledge and understanding to the question were the biggest reasons for that difference.

While the mark scheme identifies the indicative content, this is not an exhaustive list and students were awarded marks for relevant understanding, interpretation and skills which were not listed. Ultimately, when deciding on the final mark, examiners used the level descriptors to allocate a 'best fit' to the response and then decided where the response falls within the level.

Responses across the paper were not entirely consistent, although few questions caused major issues or difficulty. Student outcomes were similar across the paper and it was gratifying to see that Section C, landscapes in the UK, performed as well as Sections A and B. The most popular options were question 3, river landscapes, and question 4, coastal landscapes. Question 5, glacial landscapes, yielded the smallest number of responses, and the quality of answers was slightly poorer for this option. In Section B, answers relating to hot desert environments featured more prominently than cold environments.

The varied nature of the assessment allowed students to demonstrate their knowledge, understanding, application and skills. This was realised through a broad spectrum of multiple-choice questions, source material stimulus questions and extended writing tasks to assess descriptive, explanatory and higher order cognitive skills. Questions that required students to show understanding of specification content (AO2) and those that were designed to apply this understanding to assess geographical information and make judgements (AO3), were particularly successful in discriminating between students of different abilities. The full range in quality of answers was seen and the rubric regarding question choice was almost universally followed.

Understanding core principles of geography exemplified through case studies or exemplar support is intrinsic in the success of students on this paper. Those who could write effectively about specific locations, initiatives and outcomes scored highly.

For less able students, the questions enabled some engagement, with secure knowledge of geographical content and application of understanding to sources gaining respectable marks. They attempted more questions and there were fewer empty spaces compared with previous series. Most were confident in addressing shorter responses but frequently their extended writing was limited. They generally found the numeracy skills-related questions straightforward, although a significant number failed to answer the graph completion questions. Some lower achieving students tended to ignore the resources provided or failed to include exemplar support where it was a pre-requisite of the question. A minority of students produced superficial answers showing only a sketchy understanding of the subject matter.

For those working at higher levels there was plenty of scope in the extended writing questions to demonstrate focused sustained argument and in-depth analysis and interpretation of the various resources. There was ample opportunity to demonstrate knowledge and understanding of case study/exemplar material, especially in the 9-mark questions. Many were able to show a thorough grasp of geographical principles and make detailed and appropriate references to place-specific exemplars to support their comments. They interpreted the command words correctly and identified the keywords within questions. Scripts which were credited higher marks were characterised by consistently good performance throughout the paper for all or most part questions. Responses in the shorter, data-response and medium tariff questions were concise and straight to the point. Essays tended to be well-structured, were relevant throughout and included appropriate use of geographical terminology. As ever, the crucial aspect for success in the longer answers is to keep a sharp eye on the actual question set and not to become carried away in reproducing pre-learned material. Scripts which achieved marks in the middle mark ranges could have been improved with the understanding that the extended writing questions have an evaluative requirement, not just the need for knowledge and understanding of the topic. In addition, these evaluative comments should be substantiated.

Students could raise their performance further by being thoroughly familiar with the content as displayed in the specification, including key geographical terms. They should practise how to write clear and precise geographical explanations, and learn how to respond to higher level command words such as assess, discuss and “to what extent”. They should read each question carefully to ensure that they are addressing the question set, in the correct context and scale. It is also important to pay close attention to the mark tariffs and the resultant expectations of length of response. Understanding of processes could be improved, especially in the context of physical landscapes. Where a text-based source is provided, students should aim to comment and develop points fully rather than copying the material word for word. Where a question includes the phrase “and your own understanding”, students should extend their ideas beyond the source and incorporate other relevant material and/or exemplars. If sketches are used to illustrate features, it is essential to add labelling or annotation to enhance the written explanation. Many would benefit from rehearsing how to respond to statistical data, different types of graph and a range of maps at different scale, so as to interpret and analyse the information, deal with patterns, and comment on trends and anomalies. They should ensure that examples are used in the right context to illustrate particular themes, and include accurate geographical information pertinent to that example. It is recommended that students deconstruct the 6 and 9-mark questions in order to address all the requirements, including the commands, key words, constraints, plurals and use of place-specific examples if relevant. In the 9-mark AO1/AO2/AO3 questions students should take care to avoid writing purely descriptive answers based on the resource and/or their own knowledge. Evaluation

or assessment of an issue or an idea is required, therefore answers must be focused in this way, relying on knowledge as supporting evidence. With the command words 'to what extent' and 'assess', students should show through their extended explanation that they have looked at the evidence and made a judgement, rather than just stating 'I agree to some extent'. A focus on literacy skills in teaching is important to support students in writing responses which are appropriately linked to the question.

Section A Question 1 The challenge of natural hazards

Many parts of this question were successfully answered. The multiple choice and cloze-type questions were generally accessible and most of the low tariff questions produced favourable outcomes. Analysis of graphical material was encouraging. Some students exhibited impressive insight and understanding, particularly linked to their exemplar material in 1.10 but they might have tried to integrate them more convincingly into the 6-mark question. In 1.8, there was sometimes a reluctance to develop ideas beyond the source material provided. The understanding of physical processes was convincing, especially in 1.9.

1.1 Almost all answers to this straightforward multiple-choice question were correct. Students understood the distinction between natural hazards and those caused by human activity.

1.2 The majority recognised that C was the correct answer, but a significant proportion opted for answer B, despite the fact that the map clearly shows that the hurricane passes to the north of Cuba. A small minority circled more than one answer, so couldn't be awarded a mark.

1.3 This skills-based question requiring accurate measurement of distance was answered inaccurately by a sizeable proportion of students. Many chose to measure the straight line distance, or misinterpreted the scale. Answers ranged from 0.002 km to 250 000 km. Some measured the distance travelled at tropical storm force, whilst others appeared to have guessed the answer. The skills list in the specification includes measurement of curved line distances on maps at a variety of scales, and should be practised by students in preparing for the examination.

1.4 The majority of students were able to recognise features depicted in the satellite image such as the eye and vortex/eye wall, and some made use of the scale to measure distances across the storm. Some stated cloud characteristics or identified the anticlockwise rotation or circular shape. Specific locational descriptions were also credited. However there was no credit for features that couldn't be deduced from the image such as the pattern or speed of winds, the torrential rain or the direction of movement.

1.5 Just over half of responses to this graph completion question were correct, but a significant minority plotted the lines inaccurately, usually because the scale was misinterpreted. Some failed to provide any shading, and others drew the lines clumsily so that they overlapped with the grid lines. Needless to say, a ruler is essential when answering this type of skills question. Almost 10% did not attempt the question, despite the instructions being clearly stated, a problem also seen in question 4.1

1.6 This was overwhelmingly answered correctly, with most students suggesting that climate change or rising sea temperatures might be responsible for the increase in tropical storms. A minority chose to describe the trend over time, for which there was no credit.

1.7 The question required a specific strategy or way that planning can reduce the impact of tropical storms. Generalised or vague answers about the desirability of planning were not credited. Terms such as ‘protection’ were often used but did not say what the protection was and how it reduced the impact. Note that only one method or strategy was required, so no further credit could be awarded for a list of two or more.

Evacuation plans featured frequently as did drills, early warning systems and disaster supply kits. Credit was also given for answers that referred to the building of storm proof housing and coastal flood defences as part of long-term planning. Better answers had a specific strategy and were aware of its impact.

1.8 Most students could access this question and make a judgement about the quotation on extreme weather, with a high proportion making use of the photographic stimulus and including linked statements. However, only the most able students attained Level 3 marks. Some merely copied from the source indiscriminately and added little or no comment. A number simply agreed with the statement but failed to provide any meaningful evidence in support. Others restricted their comments to the general impacts of extreme weather, both social and economic rather than on evidence supporting the idea that the UK climate is becoming more extreme. A minority strayed into global extreme weather events, including tropical storms and tornadoes.

Students were able to access Level 3 marks by making full use of the figure and showing a thorough understanding of the evidence for extreme weather in the UK. The best responses addressed various aspects of extreme weather, such as droughts, heatwaves, storms, flooding, powerful winds and blizzards and commented on meteorological trends. Appropriate use of suitable example(s) of extreme weather also enabled them to reach maximum marks. A fair proportion alluded to events such as the Somerset Levels flooding, effects of Storms Clara or Desmond, flooding in Cumbria, the Boscastle floods, the Beast from the East or heatwaves in SE England. Credit was given for reference to possible causes of extreme weather trends, including links to global climate change. The best answers showed an awareness of increasing frequency as well as damaging impacts and gave specific evidence to support their judgement.

Key advice. Where a question uses a source and includes the phrase “and your own understanding”, students must make some reference to the figure but should also include their own relevant supporting information, ideally exemplar support, to give balance and depth to the answer. Where a photographic stimulus is provided, aim to draw detailed or elaborated inferences from the information given.

1.9 Processes taking place at plate margins were generally well understood. Most seemed aware of the features of a destructive plate margin and there was only limited confusion with constructive or conservative margins. Some answers confused the plate which subducted or were partial in explaining the plate movement and the resulting earthquakes and volcanic eruptions.

A focus on the appropriate geographical language may help future students if they are faced with answering a similar question. A large proportion understood the plates were moving together but not all were able to use the term subduction, instead plates collided, crashed or banged into each other or simply met. Which plate was subducted and why was also an area that led to confusion with the term heavier used instead of the term denser. How magma reaches the surface was also poorly described with the term gaps used frequently. The most effective answers were able to describe what was occurring in a few well-structured sentences using all of the appropriate terms with considerable accuracy.

There were many clear, focused and accomplished answers where the processes at the plate margin and the subsequent occurrence of earthquakes and volcanoes were succinctly addressed. Several answers demonstrated understanding of more modern theories of plate movement, including slab pull and gravitational movement of plates.

Key advice. Be aware of the physical processes that take place at plate margins and the causes of tectonic plate movement, including specialist terminology.

1.10 As would be expected, answers to this question varied widely and discriminated effectively as a result. Some weaker students did not attempt this final question in Section A. The average mark was well into Level 2. The majority certainly appreciated that it was necessary to make an evaluation of the extent to which they agreed with the assertion in the question. At the lower end of the mark range, there were some basic list-like answers quoting generic responses that could apply to any event. A purely generic but clear answer without specific exemplification was limited to Level 2 as was an answer that lacked consideration of the importance of different responses.

Examples usually referred to Chile, Nepal, Italy, Pakistan, Haiti and New Zealand. Relatively few selected a volcanic eruption or tsunami as an example, perhaps reflecting textbook coverage. Many made reference to contrasting exemplars and linked responses to levels of wealth and preparedness. This often resulted in good comparative and evaluative observations. Clearly it is vital that supporting material is accurate and that the case study “rings true”.

Most agreed with the statement and provided evidence of contrasts and/or reasons for contrasts, with varying levels of evidence. The best answers made evaluative comments throughout their answer, using evidence from named examples in support and putting forward a clear and comprehensive case supporting their assessment.

Where there was some recognition that wealthy countries could suffer despite being economically well off, this was not always well articulated and students need to be clear in what they are writing in the context of the question. Some included a lot of facts and figures without necessarily being evaluative; others were evaluative but with limited evidence. Students need to be aware of the different aspects which are examined in these long questions and ensure they address all elements. Some answers incorrectly made references to tropical storms as a chosen example, perhaps a legacy of previous questions. Others deviated into the cause of specific earthquakes or focused exclusively on the responses, although credit was given if the responses were clearly linked to, or explained some of the effects.

At the top end, there were some comprehensive answers that integrated two contrasting examples and assessment within a competent, discursive mini-essay. All aspects were addressed, and evaluation and judgement were to the fore, often integrated via the use of key words throughout as the effects on countries with different levels of wealth were considered. There were some very perceptive answers picking up on the idea that magnitude of earthquake as opposed to wealth is the critical factor

SPaG. The average mark for SPaG was just under 2, indicating that students generally expressed themselves clearly, using a range of suitable vocabulary in grammatically correct answers.

Key advice. Use paragraphs to effectively organise a longer response. Provide a conclusive paragraph or embed the evaluative comments within the answer throughout. It is important to become familiar with the command words and to use the number of marks as a guide to the level of development required in an answer. Students should link ideas or use chains of reasoning to elaborate and develop simple statements. Using links, such as 'this means that' or 'as a result of this', help to link the development to the reason.

Section B Question 2 The living world

This section yielded higher marks in comparison with previous series. There were many creditable responses which showed a thorough grasp of the relevant concepts, particularly the lower tariff questions, and the average mark for the 9-mark question was higher than in 2019. Some of the case study detail was limited in detail and accuracy, and there was some misunderstanding of key geographical terms. Again, graphical interpretation and use of other source material was secure. Students were able to identify trends, support their comments with data from the resources and, in the main, address the command words. The 6-mark question based on photographic stimulus and climatic data was answered effectively, showing engagement with the source and displaying clear understanding.

2.1 The vast majority of students responded correctly, making effective interpretation of the global ecosystem map

2.2 Roughly three quarters of students could see that the largest area of savanna is in Africa, a significant proportion guessed at other continents such as Asia and Europe. Around 15% didn't attempt the question at all, either because they didn't see the question, or alternatively were unsure of names of continents.

2.3 The majority correctly selected answer B and were aware of the characteristics of temperate deciduous forests. Again there is no merit for selecting more than one answer to a multiple-choice question.

Key advice. Know the names of continents and oceans and be able to recognise these on a world map. Be familiar with the features of each of the global biomes/ecosystems

2.4 Answers to this question revealed variable understanding of adaptations of plants to climate in tropical rainforests. Almost all could access Level 1 marks by utilising and describing pertinent features of the photographic image and climate statistics. Many accessed Level 2 as they made a number of clear statements linking a feature to the appropriate reason, such as waxy upper surfaces to protect against the heat or lianas climbing the trees to reach sunlight for photosynthesis. The smaller number of students that accessed Level 3 marks stood out by demonstrating understanding of how plants have adapted to climate, referring to detailed conditions of the environment. A minority were able to mention general adaptations applicable to different organisms or to explain how plants not shown in the photograph had specific adaptations.

Weaker scripts often identified buttress roots but could not link to climate, or could describe the climate without linking to adaptations. Some students ignored the climate resources provided and focussed upon buttress roots and nutrients, almost as if they had expected a question about shallow soils and nutrient recycling. Very few used the climate graph in conjunction with the features of the vegetation and some incorrectly referred to dry periods during the year and even low average temperatures.

The most common adaptations seen were the very visible buttress roots and drip tip leaves; then aspects such as lianas, the dark forest floor, thin bark, and emergent trees. Where these were clearly linked to any aspect of climate such as rainfall and sunlight and ideas then developed, linking the need for sunlight to photosynthesis for example or the drip tip leaves to the heavy rainfall, students could methodically reach Level 3.

As with question 1.8, students had scope in this question to incorporate knowledge and understanding of plant adaptations beyond those shown in the source. They should be encouraged to use the source as a springboard to their answers but not rely on it exclusively in this type of question. Some of the more sophisticated answers indicated how plants at different height levels in the rainforest environment have adapted in a variety of ways, before concentrating on particular species.

2.5 The question was generally well answered. Most could perceive the fluctuating or relatively little change until 2015, followed by the rapid increase in 2016, often supported with figures from the graph.

2.6 Laws, international agreements and debt relief were common answers, although some misread the word decreased and provided a reason for increased deforestation.

2.7 Some referred to trees being burnt, although there was no evidence (and therefore no credit) of this. There was a misconception by a significant minority that felling trees leads to the release or “leak” of carbon dioxide.

Better answers noted the loss of the trees as a carbon sink and its impact; loss of habitat and biodiversity. Whilst some did refer to soil erosion which the photograph seemed to show effectively, this was not the most common answer.

2.8 Many responses showed limited understanding of the principles of ecotourism and few were able to develop answers that linked convincingly to sustainability. Some simply mentioned that tourists will love the environment so will want to protect it. Other vague answers focused on the idea of money coming in without recognising the local/small scale involved.

The majority of students showed a basic grasp of at least one aspect of ecotourism, although this was not always developed. Frequent answers referred to the arrival of small groups, the employment of local people and use of local building materials and produce, and the education of visitors to increase their understanding and appreciation of local cultures or awareness of conservation issues.

Key advice. Be familiar with the terms listed in the specification and be able to define and understand these terms. Create a glossary of geographical vocabulary.

2.9 There was a greater reference to hot deserts than cold environments in response to this question. Some basic and generic answers noted obvious features of limited rainfall, high temperatures as challenges and mining as opportunities, or the converse of very low temperatures; frozen areas and oil in cold environments, making some use of the stimulus. The photographs were often a useful source in the weaker scripts to access the question without knowledge of a case study.

The Thar Desert featured frequently as did the Western Desert, with Alaska and Svalbard being used for cold environments. Some students mentioned a place at the beginning and then gave very generic responses. Quite a few students incorrectly selected a semi desert area, usually the Sahel region, which then drifted into management strategies to prevent further desertification rather than focusing on challenges and opportunities. However, there was evidence of good knowledge and understanding regarding opportunities linked to mining in the selected areas and the ability to trade and generate wealth leading to the development of the multiplier effect and subsequent investment. Other aspects covered in some detail with appropriate geographical support included tourism in both areas and fishing in cold environments. Some lacked a discursive dimension so did not fully respond to the question asked, but others did engage with this, commenting on the nature of the opportunities and challenges and noting at times that the opportunities themselves brought challenges.

Successful responses were well structured, with a balance of challenges and opportunities, and clear links to development for both leading to a valid conclusion. There were some excellent answers that discussed specific environmental constraints, and the opportunities for resource exploitation relating to agriculture, tourism, mining, and energy. The more sophisticated answers looked at the relationship between the nature of the challenges and the ability to overcome them in order for development to take place. This was determined by factors such as availability of water, physical terrain, extremes of temperature, technology, money available, access and transport, and value of resources.

Key advice. Underlining or boxing the key words in the question will help focus on what the question is asking. When answering the extended-writing, 9-mark questions, be aware of what is required to access Level 3. Try to include specific locational knowledge and understanding applied to the question (AO1/AO2). An often-overlooked area is the need to try to make on-going discussion or assessment supported with evidence (AO3)

Section C Physical Landscapes in the UK

These three optional questions yielded variable responses, especially the levels response questions worth 4 and 6 marks. Students appeared to be generally confident with the low tariff numeracy skills questions and with photograph and map interpretation tasks. Understanding of the sequence of change involved in landform development was clearly demonstrated by some, particularly in relation to coastal and river landforms, but the processes involved were not always clearly expressed. The drawing of annotated sketches proved challenging for some students, but there were some excellent examples as well. Knowledge of appropriate terminology was often limited, particularly the terms used in relation to physical processes of erosion. The understanding of soft and hard engineering methods was generally secure and students made good use of source material. Some weaker scripts included answers to all 3 questions, but these were a tiny minority.

Question 3 Coastal landscapes in the UK

3.1 Approximately two thirds understood the term mode to select the correct answer

3.2 Most were aware of the increase in 3.2 although some confused north and south. Some used the data effectively to provide evidence of the change in erosion rates.

3.3 Most students correctly identified the spit shown on the map

3.4 Often there was a recognition of chalk as a harder or more resistant rock, although sometimes there was a lack of clarity if the answer related to differences in rates of erosion. Some answers identified the discordant coastline but did not expand upon this so could not receive credit. A surprising number identified the chalk as the relatively softer rock.

3.5 Answers were varied, including references to wave strength, sea defences, lack of beach as well as the more obvious features of rock type and evidence of mass movement/slumping.

3.6 Effective diagrams were unusual in response to this question. Where they were fully annotated they indicated clear sequence and process and could be awarded full marks without further explanation. Some did not attempt a diagram, so were capped at Low Level 2 if they provided a coherent explanation. Others just drew unlabelled diagrams without explanation. At times there was no clear understanding of where the wave cut platform was, some seeing it as being vertical on the cliff; others believing there was a need for hard and soft rock, and even a plunge pool, similar to a waterfall scenario. Some students confused the wave cut platform with headlands and bays affected by differential erosion or outlined the cave arch stack stump sequence.

The best answers used a diagram on its own or with text to convey the change over time and the relevant erosion processes involved. Credit was also given for understanding of the role of weathering and mass movement processes. It was encouraging to see that many students could explain the formation of a wave cut notch and the processes of hydraulic action and abrasion and outlined how they occur. Some detailed responses went on to explain how cliffs eventually become degraded when the wave cut platform becomes much wider and the sea is no longer attacking the base of the cliffs.

Key advice Practise the use of diagrams to explain the formation of landforms and the associated processes. Aim to show understanding of specific processes and integrate the detailed explanation of process into the formation sequence using the correct terminology.

3.7 This question was generally accessible with average marks well into Level 2. Some did not understand what the diagram was showing but most were able to say something about how rock armour and groynes operate and consider how effective they are, better answers using the figure to note the cliff collapse and slumping in their assessment. Some weaker responses misinterpreted the diagram and tried to explain why cliff collapse and recent slumping are not effective strategies. Many used the diagram effectively to show awareness of the negative effects of groynes in a downdrift direction, picking out the idea of cliff collapse where the coast is not protected. There was also at times effective use of own knowledge regarding other strategies such as sea walls and beach nourishment with integrated evaluation. However it was possible to access marks at Level 3 for a developed account of the effectiveness of the strategies depicted in the Figure.

Some students offered well-organised, named schemes; apart from Mablethorpe and Hornsea there were accounts of Lyme Regis, Dawlish Warren, Barton on Sea and others. More able students could fully explain how the management scheme works to protect the coastline. Managed retreat was also seen, for example at Medmerry. The best responses explained not only how these strategies were designed to work, but in addition considered their flaws with specific reference to an example and their relative effectiveness overall in protecting the coastline. Weaker answers tended to be list-like or descriptive, lacking any form of evaluation of effectiveness, and confused between hard and soft engineering.

Question 4 River landscapes in the UK

4.1 There were some very large crosses but a majority of students correctly plotted the point, although quite a large minority (15%) did not attempt this question.

4.2 Almost universally correct although some (10%) just quoted figures and did not identify a trend. Some mentioned a positive correlation.

4.3 This was often clearly conveyed with specific processes of erosion often identified, including attrition and solution.

4.4 The majority of students answered correctly (gorge was the second-most common answer).

4.5 Students generally identified the steepness of the slopes or the 'V' shape but some incorrectly identified it as a 'U' shape or gave a vague description of zig-zagging or zip-like formation.

4.6 This question was surprisingly poorly answered. A large minority confused areas of deposition and erosion and where high and low energy areas are. Some hedged their bets with regard to 'one side' and 'the other side' and there was confusion between the inside and outside bend. Some answers were partial, noting the process on the specific bend but not linked to the fastest flow or the impacts of this in producing a river cliff or slip-off slope. There was at times an extension to an explanation of oxbow lakes which was not required.

Better answers included the trace of the thalweg and labelled river cliff and slip off slopes and, as in 03.6, there was often good reference to named processes of erosion. Few diagrams included a labelled cross-section. There were at the top end some very good responses using diagrams to support text using a number system to convey the sequence and processes in the formation of a meander. Credit was given for explanation of initial formation (riffles and pools) if change and development over time was explained.

4.7 In the weaker answers, students depended too heavily on the source, perhaps as this was their last question and they were rushing. Some copied the information in the figure and received no credit, whilst others reworded the information and developed ideas slightly and achieved Level 1. A minority thought that trees 'soak up flood water' rather than prevent flooding by intercepting precipitation. Some students confused rivers and coasts in this section, putting sea walls along a river, and there was some confusion over levees, often stated as a soft engineering method.

There was a clear idea of the benefits and disadvantages of hard vs soft methods as a whole. Most identified hard engineering as more effective and gave simple reasons. Answers were at times generic linked to different approaches, which often involved straight reversals, such as expensive and cheap.

Better responses engaged with the question and used the examples given and their own such as channel straightening and river restoration, sometimes linked to named locations to assess the benefits of each. These looked at the negatives of each as an integral part of the answer and recognised that the benefits perhaps depended on the perspective of the local resident versus the Environment Officer.

Question 5 Glacial landscapes in the UK

There were far fewer responses to this question but it performed almost as well as the other options in Section C. The figure may be stilted because a significant proportion of responses were rubric offences

5.1 Many students missed out this question (25%) but, of those who answered it, roughly half were awarded the mark as their curves declined to 0 at point Y.

5.2 This was almost universally correct with most students interpreting correctly by quoting figures from the ice thickness isoline map.

5.3 The majority of students provided a correct answer, making good use of Figure 17.

5.4 Most students who had studied this topic correctly identified the landform as moraine

5.5 The majority of students were unable to give a clear answer to this question, perhaps because many had not compared fluvial processes that involve sorting of material and glacial processes where material is unsorted. There was even a paucity of more general comments about material being picked up from everywhere.

5.6 Some students were able to identify processes of plucking and abrasion but most were unable to portray this in an annotated diagram or give a clear sequential explanation of the formation of glacial trough. Some just drew two diagrams, depicting a V and U-shaped valley. A few tried to explain other landforms, including corries and even aretes.

However the better scripts included answers which gained 4 marks for a partial diagram and good explanation and a few whose excellent diagrams gained 4 marks, if the annotations were clear. They were able to explain the initial formation and the sequence of changes over time. Knowledge is critical in this type of question. Some knew the correct terms but could not put their ideas into a correct sequence. Others attempted to explain trough formation without any reference at all to the involvement of snow, ice or glaciers. Surprisingly a number of students identified water erosion as being significant.

5.7 There was a tendency to repeat figures but not always to be aware of impacts. Relatively few followed the instruction to apply their own knowledge and understanding to the source material. Poorer responses included a general idea of economic benefits and environmental damage, particularly of footpath erosion and several answers were able to access at least L2 with addition of own knowledge.

The best answers were developed and supported with specific reference to a chosen example, usually the Lake District, incorporating places, specific facts and/or figures. Some praiseworthy responses showed a high level of assessment. Evaluation was often clear, sometimes one-sided, stating that environmental disadvantages far outweighed any economic advantages.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.