

## **A LEVEL**

*Examiners' report*

# **GEOGRAPHY**

**H481**

For first teaching in 2016

## **H481/01 Summer 2019 series**

Version 1

# Contents

- Introduction .....3
- Paper 1 series overview .....4
- Section A overview .....5
  - Option A overview .....5
  - Question 1 (a) .....5
  - Question 1 (b) (i) .....7
  - Question 1 (b) (ii) .....7
  - Question 1 (b) (iii) .....7
  - Question 1 (c) .....8
  - Question 1 (d) .....9
  - Option B overview .....10
  - Question 2 (a) .....10
  - Question 2 (b) (i) .....10
  - Question 2 (b) (ii) .....11
  - Question 2 (b) (iii) .....11
  - Question 2 (c) .....11
  - Question 2 (d) .....11
  - Option C overview .....12
  - Question 3 (a) .....12
  - Question 3 (b) (i) .....12
  - Question 3 (b) (ii) .....12
  - Question 3 (b) (iii) .....13
  - Question 3 (c) .....13
  - Question 3 (d) .....13
- Section B overview .....14
  - Question 4 (a) (i) .....14
  - Question 4 (a) (ii) .....15
  - Question 4 (b) .....15
  - Question 4 (c) .....16

## Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates. The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report. A full copy of the question paper can be downloaded from OCR.



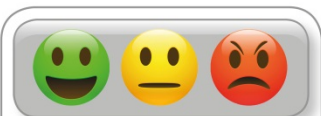
### Would you prefer a Word version?

Did you know that you can save this pdf as a Word file using Acrobat Professional?

Simply click on **File > Save As Other . . .** and select **Microsoft Word**

(If you have opened this PDF in your browser you will need to save it first. Simply right click anywhere on the page and select **Save as . . .** to save the PDF. Then open the PDF in Acrobat Professional.)

If you do not have access to Acrobat Professional there are a number of **free** applications available that will also convert PDF to Word (search for *pdf to word* converter).



### We value your feedback

We'd like to know your view on the resources we produce. By clicking on the icon above you will help us to ensure that our resources work for you.

## Paper 1 series overview

Encouragingly the quality of candidate answers has improved compared with the first sitting of the paper in Summer 2018. It is evident that candidates know the structure of the paper and are able to plan their time accordingly to answer everything asked of them. Some candidates are starting with the longer essay questions, an approach which is suited to their writing style.

Once more, the vast majority of candidates answer questions within the Coastal Landscapes option, a smaller number the Glaciated Landscapes and an even smaller proportion answering the Drylands option.

Candidate answers indicate that they are more familiar with the assessment objectives and what these mean in terms of how to structure their approach. However, there is a tendency for candidates to adapt the question to one they would like to answer rather than tailoring their response to the key focus indicated by the question. While many understand the need to analyse and evaluate for AO2, candidates struggle to continually do this throughout their answer and interweave this analysis. It would also be good to see a greater range of candidates bringing time and scale into their analysis as this often lifts their answer and indicates a greater level of understanding.

Both the mathematical element of the exam paper and the use of resources in general continues to be a challenge for a number of candidates. Candidates would therefore benefit from further skills based practice including the evaluation of sources and identification of landforms from photographs.

As ever, handwriting continues to be a concern and while candidates are under time pressure there are occasions where this is becoming illegible and there is a risk that work may not be credited due to this.

## Section A overview

Optionality is present in Section A with students having a choice of three topics. There were very few rubric errors indicating that candidates are familiar with the structure of the exam paper. Once again the most popular choice was Coastal Landscapes by far. A smaller number of students answered Glaciated Landscapes and an even smaller number, Dryland Landscapes.

### Option A overview

Coastal Landscapes was answered by a large number of candidates. While many of these candidates were able to show in-depth knowledge and understanding of their chosen topic, those selecting this topic should make sure they have sufficiently developed their GCSE knowledge and understanding to reach the standard required for A Level.

### Question 1 (a)

#### Option A – Coastal Landscapes

1 (a) Explain the role of flows of energy in the formation of a tombolo.

[8]

There were some excellent examples here of candidates that could discuss a range of flows of energy (including kinetic, gravitational potential, solar) that would contribute to the formation of a tombolo. The very best answers were also able to discuss different ways of tombolo formation including a discussion of Chesil Beach and the Flandrian Transgression while also maintaining the focus on the role of energy. However, all too often candidates wrote about 'energy' in a generic form or did not go beyond high/low energy. In some instances candidates didn't address the notion of energy at all through their answer and these were given lower marks.

## Exemplar 1

Tombolos are formed when flows of energy are low, causing deposition to occur. Tombolos are created when longshore drift forms a spit. Eventually, the spit keeps building up and a tombolo begins to form at the end, creating an offshore island. The flows of energy have changed due to wind speed and wave speeds. Low energy waves are what cause the sediment to be deposited, forming the tombolo. The tombolo would keep building up with sediment because longshore drift will keep passing the materials from high areas of high energy to areas of low energy.

As demonstrated here, many candidates were able to discuss energy in relation to deposition but did not incorporate any other forms of energy into their answer. This was common to see and thus future teaching should make sure candidates are confident with the flows of energy and how they link to landforms.

## Question 1 (b) (i)

- (b) Study **Table 1**, which shows inputs and outputs of sediment for a beach in Cornwall, UK, during 2017.

		Summer	Winter
Input (m <sup>3</sup> )	Cliff erosion	43	100
	Fluvial deposition	50	20
	Beach nourishment	50	0
Output (m <sup>3</sup> )	Marine erosion	20	69
	Longshore drift	93	130

**Table 1** Inputs and outputs of sediment for a beach in Cornwall, UK, during 2017

- (i) Find the mode(s) of the data set shown in **Table 1**. [2]

The most common answers were 50 and 20 as these appeared twice each within the table. However, some candidates approached this question in a variety of appropriate ways; all of which were credited. There were still some instances where candidates were unable to demonstrate these basic mathematical skills and were confusing the mode with other measures such as the mean or range.

## Question 1 (b) (ii)

- (ii) Calculate the sediment budget for each season shown in **Table 1**. You must show your working. [2]

This answer was generally completed effectively with candidates understanding how to calculate the sediment budget for both summer and winter. However, some candidates made an error by omitting the negative sign prior to their figure for winter.

## Question 1 (b) (iii)

- (iii) State whether each season was in a surplus, deficit or equilibrium state. [2]

This question was well answered with the vast majority of candidates understanding the meaning of each term and how it linked to the sediment budget. A small number of candidates misunderstood that a small figure meant that this represented an equilibrium state.


## Question 1 (c)

(c) Study Fig. 1, Isle of Skye, Scotland, UK; an area that has experienced climate change.

With reference to Fig. 1, explain the role of **one** geomorphic process in forming landform A.

[3]

The majority of candidates were able to identify landform A as an abandoned cliff and explain how a geomorphic process influenced its formation. The most successful candidates discussed processes such as freeze-thaw weathering and explained each stage in succession. However, a number of candidates did not identify a geomorphic process at all in their answer; instead focusing on isostatic or eustatic change. Furthermore many candidates named more than one process but did not explain any; simply naming a process did not gain credit as the command word of the question is to explain.

	<b>AfL</b>	When teaching, reiterate to students if the question asks for <b>one</b> process then their first point will be marked. They should structure their answer clearly with a process named and then a sequence of points about this process.
---	------------	---

## Exemplar 2

Landform A in figure 1 is an abandoned cliff, which is an emergent landform caused by a sea level fall. One geomorphic process which would have contributed to forming this landform is marine erosion such as hydraulic action. This is because when sea levels were higher waves would have helped form this landform, as the sheer power of the waves would have forced air and water into cracks or joints in the cliff face and expanded the crack due to an increase in pressure. This would have lead to a formation of a wave cut notch between low and high tide and eventually a rock fall causing a steep cliff face to form.



The candidate has identified a clear geomorphic process of hydraulic action and then focused solely on explaining this one process.

### Question 1 (d)

(d)\* 'Geology is the most significant influence on coastal landscapes.' To what extent do you agree with this statement? [16]

There was evidence of some excellent teaching in the answers to this question. Candidates were able to demonstrate thorough and well developed knowledge and understanding about the role of geology with the best answers covering rock structure, porosity and permeability amongst other factors. Many candidates were also able to use place specific detail to illustrate their points and quote statistics such as the rate of erosion to support their knowledge around geology. The question also required candidates to be analytical and evaluative when considering if geology is the most significant influence. While a number of candidates were able to say how different factors changed the landscape, for example, by linking to landform formation; the discussion of the significance was lacking in depth at times and this should be an area of focus for future teaching



**AFL**

When analysing the significance of different factors, ask students to consider this in relation to time and scale, and try to interweave these ideas throughout their answer rather than solely as a conclusion at the end.

### Exemplar 3

beaches. Rock permeability is another geological factor. If ~~the~~ rocks on a coastline is more porous, it absorbs more water. Overnight, it will freeze in colder temperatures, further eroding the cliffside. Water expands by 10% when it's frozen and this processes that goes on in cliff is called freeze-thaw. In addition, the weight of porous rock can cause a cliffside to collapse due to the additional weight. Wave-cut notches make a cliff weaker so when porous rock is saturated and heavy, it can collapse the whole section of cliff downwards. This is called slumping. It's clear here to see that geology does have a significant impact in ~~forming~~ influencing coastal landscapes.

While many candidates focused solely on rock resistance, those in the higher levels showcased their knowledge and understanding of different elements of geology.

## Option B overview

Glaciated Landscapes was the second most popular topic answered within Section A. For many, this would have been a new topic that candidates had not previously studied at GCSE. However, the level of knowledge and understanding was generally good and candidates were able to talk with confidence about different place studies.

### Question 2 (a)

#### Option B – Glaciated Landscapes

- 2 (a) Explain the role of flows of energy in the formation of an erratic. [8]

The majority of candidates were able to articulate what was meant by an erratic and give developed ideas regarding their formation. At the top end this included the full sequence starting with the process of plucking through to deposition. However, the ability to discuss in depth the role of flows of energy within the formation was variable. While many candidates could discuss energy in a general way such as the link between deposition and energy, a smaller number considered aspects such as thermal energy, kinetic energy and gravitational potential energy. When this was done the highest marks were given and thus moving forward candidates should consider these different elements in order to be successful.

### Question 2 (b) (i)


- (b) Study **Table 2**, which shows inputs and outputs of water equivalent for a glacier in Norway during 2017.

		Summer	Winter
<b>Input (cm)</b>	Wind redistribution	1	10
	Direct snowfall	0	40
	Avalanche	0	170
<b>Output (cm)</b>	Melting	120	2
	Evaporation/sublimation	50	10

**Table 2** Inputs and outputs of water equivalent for a glacier in Norway during 2017

- (i) Find the mode(s) of the data set shown in **Table 2**. [2]

A large proportion of candidates answered this correctly and were able identify the correct answers. While most looked at the whole data set and gave 0 and 10 as their answers, credit was also given for alternative interpretations of what was meant by the data set.

	<b>Misconception</b>	The mode is the value of the data that occurs most often. A number of candidates gave the words such as avalanche, when for the mode a number was required. Furthermore, some candidates still confuse mode with the mean and thus perform the wrong calculation.
---	----------------------	---

Question 2 (b) (ii)

- (ii) Calculate the mass balance for each season shown in **Table 2**.  
You must show your working.

[2]

This was generally answered very well with candidates understanding how to calculate the mass balance. At times, there were simple errors when adding or subtracting and therefore candidates should double check their answers.

Question 2 (b) (iii)

- (iii) State whether each season was in a surplus, deficit or equilibrium state.

[2]


On the whole candidates were able to interpret the mass balance they had calculated in 2bii to state whether the season was in surplus, deficit or equilibrium. Where their calculation was incorrect for 2bii, credit was still given for the interpretation of their answer.

Question 2 (c)

- (c) Study **Fig. 2**, Tuktoyaktuk, Canada; an area that has experienced climate change.

With reference to **Fig. 2**, explain the role of **one** geomorphic process in forming landform **B**.  
[3]

For some candidates identification of the landform was the stumbling block for this question, and hence they were unable to explain the role of a geomorphic process. However, many candidates correctly named the landform as a pingo and discussed the role of frost heave in depth.

	<p><b>AfL</b></p>	<p>When teaching about the formation of different landforms, make sure students have seen an array of photographs so that they are able to identify them easily if required.</p>
---	-------------------	--

Question 2 (d)

- (d)\* 'Geology is the most significant influence on glaciated landscapes.' To what extent do you agree with this statement?  
[16]

Candidates' knowledge and understanding of geology was generally strong with a vast number discussing the Lake District and the different geologies present. Candidates were able to then link this to the landscape found in these areas. However, while this place specific detail was good, for the highest level candidates needed to show a thorough understanding of different elements of geology. The analysis and evaluation of the influence of geology was generally done well with candidates comparing its significance to other factors such as altitude, climate and human influences. These other factors were well understood and their influence on the landscape, at times discussed in depth. However, candidates could improve their performance in AO2 by considering significance in relation to time and scale to show an increased depth of understanding.

### Option C overview

Dryland Landscapes was once again the least answered option within Section A. Of the small number of candidates that answered this topic, there appeared to be a large disparity in their level of understanding with candidates either doing extremely well or unfortunately struggling to access many marks. For many this may be a topic they have not previously studied at GCSE and this unfamiliarity seems to be causing some candidates difficulty.

### Question 3 (a)

**Option C – Dryland Landscapes**

- 3 (a) Explain the role of flows of energy in the formation of a barchan. [8]

There was a wide range of marks for this question with some candidates choosing not to attempt this question. Those that did were able to describe the formation of a barchan but found it difficult to make the links to energy. When this was done, energy was treated holistically and candidates struggled to discuss different elements of energy.

### Question 3 (b) (i)

- (b) Study **Table 3**, which shows inputs and outputs of water equivalent for a desert in Chile during 2017.

		Summer	Winter
<b>Input (mm)</b>	Cold front snowfall	0	194
	Advection snowfall	0	4
	Rainfall	2	1
<b>Output (mm)</b>	Evapotranspiration	2000	8
	River discharge	20	4

**Table 3 Inputs and outputs of water equivalent for a desert in Chile during 2017**

- (i) Find the mode(s) of the data set shown in **Table 3**. [2]

The majority of candidates correctly identified 0 and 4 as the modal values. A small number of candidates interpreted the data set in a different way and thus credit was still given where answers were appropriate.

### Question 3 (b) (ii)

- (ii) Calculate the water balance for each season shown in **Table 3**. You must show your working. [2]

As with the previous question, a large proportion of candidates were able to perform the correct calculation and earn the maximum of 2 marks available. In a small number of instances, candidates made an error by missing out the minus sign (for summer) and thus unfortunately lost a mark here.

### Question 3 (b) (iii)

(iii) State whether each season was in a surplus, deficit or equilibrium state. [2]


The interpretation of candidates' calculations in 3bii was generally accurate with many understanding the difference between surplus and deficit. A small number misunderstood how an equilibrium state would be represented and thus this should be reinforced with candidates moving forward.

### Question 3 (c)

(c) Study Fig. 3, Western Desert, Egypt; an area that has experienced climate change.

With reference to Fig. 3, explain the role of **one** geomorphic process in forming landform C. [3]

This question proved challenging for a large proportion of candidates answering this section. Many were unable to identify the landform or a geomorphic process that might have been in action. Those candidates that could identify the landform and an appropriate process generally discussed the role of precipitation, however, their explanations were not always clear.

	<b>AfL</b>	When teaching about the formation of different landforms, make sure students have seen an array of photographs so that they are able to identify them easily if required.
--	------------	---

### Question 3 (d)

(d)\* 'Geology is the most significant influence on dryland landscapes.' To what extent do you agree with this statement? [16]

There was a large range of marks for this question with a large proportion of candidates finding it difficult to discuss varying influences on dryland landscapes including geology. In the majority of cases candidates focused on rock resistance and thus its influence, but missed opportunities to discuss elements such as permeability, porosity, rock structure, bedding planes and so on. It also appeared that candidates found it challenging to link geology to the influence on the landscape and the landforms that could be created as a result. However, the alternative influences aside from geology were generally much better explained; this was particularly the case for human activity with many candidates able to refer to specific examples and link these to the influence on the landscape. While this was credit-worthy, it is important to note that candidates must make sure they answer the question in front of them rather than adapting it to one they would be more comfortable with. By only covering the basics of geology candidates were impeding their performance in this question.

## Section B overview

The performance of candidates in Section B was generally to the same standard or better than that of Section A. There was clear familiarity with both the water and carbon cycles and candidates were able to demonstrate good depth of knowledge. It was rare to see any questions within this section missed out and at times candidates wrote lengthy, detailed responses with demonstrated comprehensive knowledge and understanding.

### Question 4 (a) (i)

4 (a) Study Fig. 4, a climate graph for Yakutsk, northern Russia.

- (i) With reference to Fig. 4, suggest how variations in temperature influence the size of **one** store in the carbon cycle. [4]

A large proportion of candidates were able to identify an appropriate store in the carbon cycle, with permafrost or vegetation being chosen most often. They were also able to then discuss how the size of the store would change throughout the year and give developed reasons as to why this was the case.

#### Exemplar 4


In the summer, the temperature rose to about 20°C and rainfall was at its maximum of 40mm, this would encourage plants' growth which means ~~a~~ more photosynthesis would occur, this would increase the size of the biosphere as a store. Increase in temperature and rainfall would also increase decomposition, which means biosphere's store would ~~also~~ increase. However in winter where temperature falls to below -40°C, there would be ~~a~~ no plants growth which means ~~a~~ the size of biosphere as a carbon store decrease.

This candidate has clearly used the resource to identify an appropriate store and subsequently developed points regarding changes to its size.

### Question 4 (a) (ii)

- (ii) Explain **three** limitations of such climate graphs in representing the climatic conditions of a location. **[3]**

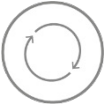
This question was a challenge for many and showed an unfamiliarity with the evaluation of different sources of information. A large number of candidates did not gain credit for this question, mainly because their answers consisted of basic and generic points such as the graph could be clearer, it's difficult to read the axes, and it's confusing as there are two variables.

	<b>AfL</b>	It is good practice to make sure that the evaluation of different sources and presentation techniques is done alongside the teaching of the course content so that candidates are better prepared for these skill based questions.
---	------------	--

### Question 4 (b)

- (b) Examine the significance of short term changes to the flows and stores in the water cycle. **[10]**

There were many pleasing answers to this question with candidates able to discuss the short term changes to the water cycle identified in the specification; seasonal and diurnal. Candidates were able to discuss both flows and stores, and covered a range of aspects of the water cycle including evaporation, transpiration and overland flow. However, disappointingly the examination of the significance was often not tackled and thus in this case candidates were unable to achieve Level 3 for their answer. Only a small number were able to incorporate significance into their answer such as by comparing the tundra with the tropical rainforest, which was disappointing, as those that did wrote comprehensive answers. Furthermore, many candidates drifted from the focus of the question and wrote about long term changes such as climate change or alternatively human activities, none of which were credited.

	<b>AfL</b>	It is imperative that future teaching reinforces to students that an instruction to examine the significance means AO2 credit is available and thus an answer that merely describes and explains will be unable to achieve the full marks for a question.
---	------------	---

## Exemplar 5

of flows. It is also very fast. Seasonally wise plays bigger part in the tundra, the tundra in the summer receives 24/7 sunlight, this increases the thawing of permafrost, which increases the amount of surface run-off. There would also be millions of small ponds and lakes formed on the permafrost which will eventually travel to the ~~the~~ river. This means there is decrease in the size of cryosphere and increase in the size of hydrosphere and atmosphere as a water store. The increase in sunlight would also increase evaporation and precipitation, which causes the variation

Here the candidate has clearly addressed the significance of these short term changes and thus is able to access the highest level for their answer.

## Question 4 (c)

- (c)\* 'Reducing emissions is the most effective global management strategy to protect the carbon cycle as a regulator of the Earth's climate.' How far do you agree with this statement? [16]

On the whole this question was well answered with candidates writing in depth about a range of management strategies. As expected, the Kyoto Protocol and Paris Agreement featured regularly with many candidates able to discuss specific targets that had been implemented from these. Candidates also discussed a range of other management strategies including afforestation, wetland restoration, carbon sequestration, cap and trade amongst others. Their understanding of these was generally strong and place specific detail was also often included.

Candidates were also on the whole able to evaluate the extent to which they agreed with the statement and discussed the successes and failures of the different strategies they had written about. This included points surrounding cost, timescales, support by governments, as well as the success of specific projects for each strategy. There were a small number of candidates whose knowledge and understanding of the reducing emissions strategies needed developing and therefore they had instead answered a slightly different question by focusing solely on adaptation methods.

Furthermore, an even smaller number misunderstood the question and did not name any strategies at all, instead talking generically about why emissions needed to be reduced; unfortunately this did not meet the requirements of the marking criteria for this question. Having said that, the vast majority of candidates achieved well on this question and many displayed the comprehensive knowledge and understanding needed to reach Level 3.



## Supporting you

For further details of this qualification please visit the subject webpage.

### Review of results

If any of your students' results are not as expected, you may wish to consider one of our review of results services. For full information about the options available visit the [OCR website](#). If university places are at stake you may wish to consider priority service 2 reviews of marking which have an earlier deadline to ensure your reviews are processed in time for university applications.

## activeresults

*Review students' exam performance with our free online results analysis tool. Available for GCSE, A Level and Cambridge Nationals.*

It allows you to:

- review and run analysis reports on exam performance
- analyse results at question and/or topic level\*
- compare your centre with OCR national averages
- identify trends across the centre
- facilitate effective planning and delivery of courses
- identify areas of the curriculum where students excel or struggle
- help pinpoint strengths and weaknesses of students and teaching departments.

\*To find out which reports are available for a specific subject, please visit [ocr.org.uk/administration/support-and-tools/active-results/](https://ocr.org.uk/administration/support-and-tools/active-results/)

Find out more at [ocr.org.uk/activeresults](https://ocr.org.uk/activeresults)

## CPD Training

Attend one of our popular CPD courses to hear exam feedback directly from a senior assessor or drop in to an online Q&A session.

Please find details for all our courses on the relevant subject page on our website.

[www.ocr.org.uk](https://www.ocr.org.uk)

## OCR Resources: *the small print*

OCR's resources are provided to support the delivery of OCR qualifications, but in no way constitute an endorsed teaching method that is required by OCR. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources. We update our resources on a regular basis, so please check the OCR website to ensure you have the most up to date version.

This resource may be freely copied and distributed, as long as the OCR logo and this small print remain intact and OCR is acknowledged as the originator of this work.

Our documents are updated over time. Whilst every effort is made to check all documents, there may be contradictions between published support and the specification, therefore please use the information on the latest specification at all times. Where changes are made to specifications these will be indicated within the document, there will be a new version number indicated, and a summary of the changes. If you do notice a discrepancy between the specification and a resource please contact us at: [resources.feedback@ocr.org.uk](mailto:resources.feedback@ocr.org.uk).

Whether you already offer OCR qualifications, are new to OCR, or are considering switching from your current provider/awarding organisation, you can request more information by completing the Expression of Interest form which can be found here: [www.ocr.org.uk/expression-of-interest](http://www.ocr.org.uk/expression-of-interest)

Please get in touch if you want to discuss the accessibility of resources we offer to support delivery of our qualifications: [resources.feedback@ocr.org.uk](mailto:resources.feedback@ocr.org.uk)

## Looking for a resource?

There is now a quick and easy search tool to help find **free** resources for your qualification:

[www.ocr.org.uk/i-want-to/find-resources/](http://www.ocr.org.uk/i-want-to/find-resources/)

[www.ocr.org.uk](http://www.ocr.org.uk)

OCR Customer Support Centre

### General qualifications

Telephone 01223 553998

Facsimile 01223 552627

Email [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

OCR is part of Cambridge Assessment, a department of the University of Cambridge. *For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored.*

© **OCR 2019** Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee. Registered in England. Registered office The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA. Registered company number 3484466. OCR is an exempt charity.



Cambridge  
Assessment

