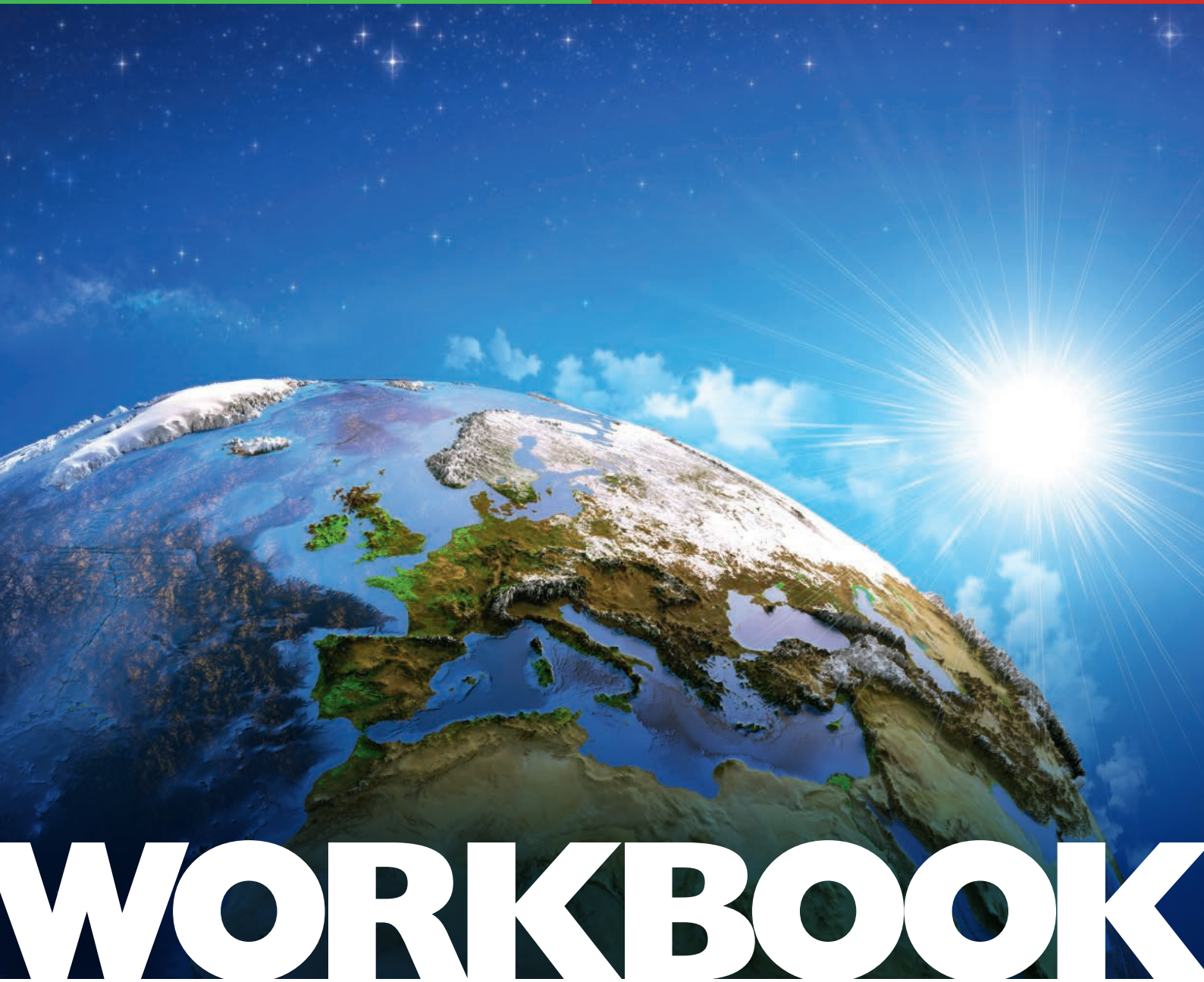


OCR

A-LEVEL



# Geography 1

Landscape systems

Changing spaces; making places

Peter Stiff and Andy Palmer

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**1** **This workbook** will help you prepare for the OCR AS and A-level Geography examinations. The layout of subject content closely follows that in the published OCR Geography specification.

**2** **The workbook** focuses on four topics. The first, second and third are options within the Landscape systems component. You need only study one of them. Changing spaces; making places is a compulsory topic at both AS and A-level.

**3** **You should use** this workbook alongside reading the relevant sections of your textbook and checking through your lesson notes. There are also published revision guides that you could consult.

**4** **For each topic** you will find a series of review questions that cover the content (enquiry questions and key ideas) set out in the specification. Marks and lines or spaces are given for each question to give you a 'feel' for their relative importance and challenge. These questions build up to, and finish with, exam-style questions. These should be completed within the times shown.

**5** **In each topic** there are questions built around some form of stimulus material (map, diagram, photograph, statistical table or fact file).

**6** **Answering the questions** will not only test your knowledge and understanding but will also help you build your exam skills. Answers to all the questions are available at [www.hoddereducation.co.uk/workbookanswers](http://www.hoddereducation.co.uk/workbookanswers).

**7** **The AS examination** is 1 hour 45 minutes long, and includes questions on your chosen option in Landscape systems and Changing spaces; making places. You will need to answer a range of questions. Some questions require short answers earning 3 or 4 marks, some are a little longer earning between 6 and 12 marks, while others require extended prose answers for 14 marks, which need to be planned in the same way as essays. Some questions require reference to stimulus materials provided in a resource booklet.

**The Physical systems A-level examination (01)** is 1 hour 30 minutes long and includes questions on your chosen option in Landscape systems. It also includes questions on Earth's life support systems (see Workbook 2). Some Landscape systems questions require short answers earning 2, 3 or 4 marks, one question earning 8 marks requires reference to stimulus materials provided in a resource booklet and one is an extended prose answer for 16 marks, which needs to be planned in the same way as an essay.

**The Human interactions exam (02)** is 1 hour 30 minutes long and includes questions on Changing spaces; making places. It also includes questions on Global connections (see Workbook 2). Two Changing spaces; making places questions require reference to stimulus materials provided in a resource booklet, with one earning 3 marks and the other 8 marks. Another question earns 6 marks and there is an extended prose answer that earns 16 marks, which needs to be planned in the same way as an essay.

**8** **The Geographical debates exam (03)** includes a section in which you will need to make links between an aspect of your chosen options and other areas of the course. Section B (Synoptic questions) could ask you to refer to material from your chosen Landscape system or from the Changing spaces; making places component.

# Landscape systems

## Option A: Coastal landscapes

### How can coastal landscapes be viewed as systems?

#### Coastal landscapes can be viewed as systems

The coast's highly dynamic environment results from the interaction of atmospheric, marine and terrestrial processes. Coastal landscapes can be viewed as systems, comprising inputs, stores, throughputs and outputs of both energy and material. Systems can exist in a state of equilibrium, when inputs equal outputs. If this equilibrium is disturbed, the system may self-regulate and restore equilibrium; this dynamic equilibrium is an example of negative feedback.

- 1 Outline the three types of energy that can be inputs into coastal landscape systems. 3 marks**

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- 2 Describe one output of energy and one output of material from a coastal landscape system. 4 marks**

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- 3 What is dynamic equilibrium? 3 marks**

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- 4 Distinguish between stores and flows (transfers) in a sediment cell. 2 marks**

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- 5 Explain why sediment cells may not be closed systems in terms of sediment transfer. 4 marks**

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## Coastal landscapes are influenced by a range of physical factors

Physical factors influence the way geomorphic processes work and how coastal landscapes develop. They can influence the operation of the coastal landscape system by affecting the inputs, stores, throughputs and outputs. The influence of different factors varies spatially and temporally.

Factors include winds, waves, tides, geology and currents.

How much energy waves have, and how they move and break, greatly affects their ability to carry out geomorphic processes.

**6 Explain how winds produce waves.**

**3 marks**

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**7 Explain why waves break when they reach the shore.**

**4 marks**

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**8 Describe and explain the movement of backwash.**

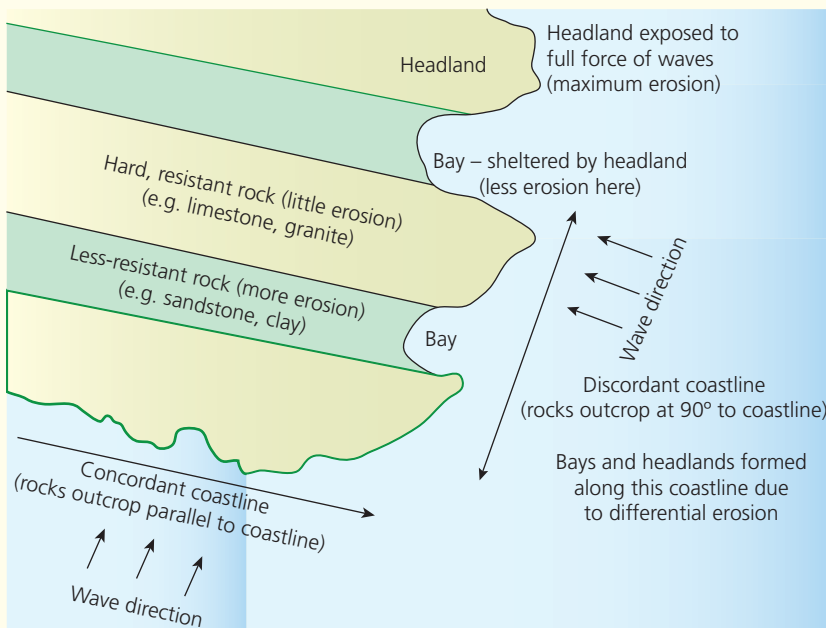
**2 marks**

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**9 Using Figure 1, explain why wave refraction occurs on some coasts and how it influences the distribution of energy along the coast.**

**6 marks**



**Figure 1**

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**15** What term is used for sediment transported and deposited by wind?

1 mark

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**16** Describe how longshore drift can help the sediment budget of a beach remain in equilibrium.

3 marks

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.....  
**17** Why might a sediment budget in a deficit state require human intervention?

2 marks

.....  
.....  
**18** Briefly describe two ways in which sediment is added to the budget by beach nourishment.

2 marks

## How are coastal landforms developed?

### Coastal landforms develop through a variety of interconnected climatic and geomorphic processes

Geomorphic processes include weathering (physical/mechanical, chemical and biological), mass movement, wave processes (erosion, transportation and deposition), fluvial processes (erosion, transportation and deposition) and aeolian processes (erosion, transportation and deposition).

Climatic processes are interconnected with the geomorphic processes. These include temperature fluctuations, wind and precipitation.

**19** What does chemical weathering do to rock?

2 marks

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**20** Why might freeze–thaw weathering be of limited importance in temperate coastal environments?

2 marks

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.....  
**21** What is the key difference between slumps and linear slides?

2 marks

.....  
.....  
**22** How much force can breaking waves exert in pounding coastal rocks?

1 mark

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