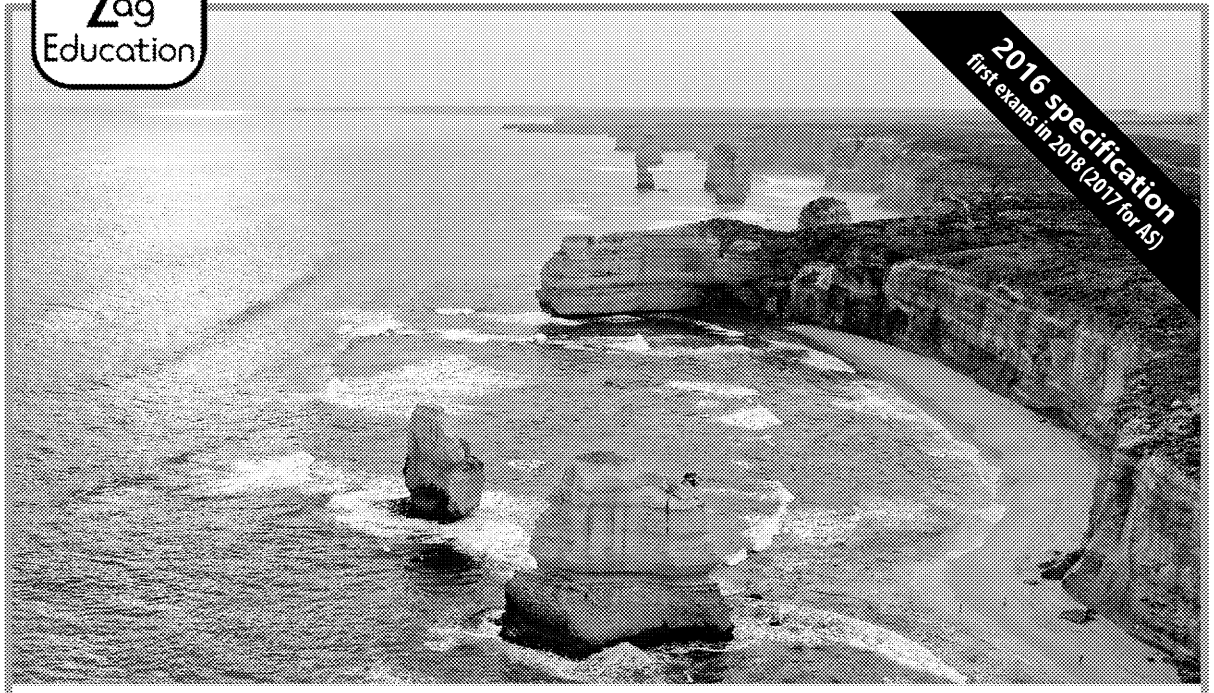
Zig Zag Education

Geography AS / A Level | AQA | 7036 / 7037



A Level AQA Topic Tests

Coastal Systems and Landscapes

zigzageducation.co.uk

POD 7254

Contents

Teacher's Introduction

These ZigZag Education Topic Tests for Geography are written to be used for continued assessment during the teaching of the given topic. Each resource covers the full content of the specification for the named topic, spread across a number of tests. The final test in each resource is synoptic, and spans a range of content from across the named topic, ideal as an end of topic recap and revision exercise. The tests are provided in a non-write on format.

Each test should take one lesson length to complete, with an optional extension s challenge more able students, or as a follow-up homework task for the whole clas resource takes into account the weight of the topic within the spec, allowing one over a two year course of study when using the full resource range.

This resource has six tests on ***Coastal Systems and Landscapes*** for the **AS / A Level A** 7036 / A Level 7037 – ***Section 3.1.3***). Every key aspect of this topic within the specific

The resource is designed to be **co-teachable** with both AS and A Level students. T mirror the exams, but in the extension sections the longer answer questions *do* f of command word and marks allocated. For this reason, some tests have a differ A Level students if the exam structure differs significantly between qualification le

Suggested answers for each test are included. For 'closed' questions, where o model answer has been provided. For 'open' and extended questions, indicati

When to Use This Resource

This resource can be used at the end of teaching a sub-topic, or the end of the whole unit to consolidate knowledge. Students can also re-use these tests towards the end of the course as part of a programme of revision.

How to Use This Resource

The tests can be completed individually in class, or set as homework tasks to enable you, as a teacher, to diagnose your students' strengths and weaknesses in certain areas. Each test covers a range of question types, and draws upon a wide range of stimulus material. The tests can be marked by a teacher or by students, as answers are provided.

The Benefits to the Student

Students can be confident they have been tested on every key aspect of the specifica will know which areas they are strong in, and which require further work, and can se learning. The answer sections also provide students with an indication of what a goo

Differentiation

In order to support lower ability students while pushing the more able each test ha

- The first section has approximately 40 marks and has been written to test know specification.
  - These questions are for all students and the difficulty or complexity gener
- The second section has approximately 10 further marks of extension questions t
  - These questions more closely follow the exam style, with command word the longer exam questions.
  - In some cases the extension section is longer (up to 20 marks) to provide a where the exam requires it. The initial test may then be slightly shorter to
  - Where the AS exam structure differs, an alternative extension section is p required format.

Test 2 – Coastal Processes

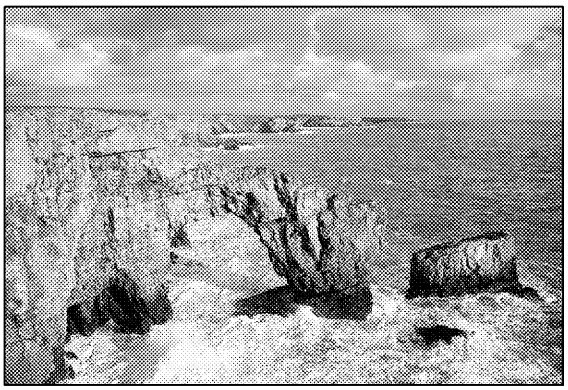
1. Give two factors which cause wave height to increase near the shore.

2. a) The data below shows the tide heights on the Severn Estuary at Beachl
Give the classification of the tidal range at Beachley based on this data,
chosen this classification.

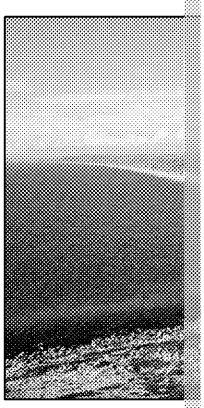
High or Low Tide	Height (m)
Low	1.14
High	12.95
Low	1.1
High	13.45

b) Give the opposite classification of tidal range.

3. Copy and complete the table below to explain which photograph represents



Photograph A



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	Photograph A	
Low or High Energy		
Reason 1		
Reason 2		
Reason 3		

4. To what extent are sediment cells closed systems?

5. Outline what is meant by the term 'sediment budget'.

6. Discuss the forms of erosion caused by the ocean and its water.

7. Using the four descriptions, state the type of transport which is taking place

A	The water is clear; transported material cannot be seen.
B	It is high tide. At the base of the chalk cliff, the ocean water appears li
C	As a storm wave passes above, a pebble is momentarily suspended. A material drops back to the sea floor, closer to the beach.
D	As waves travel up and down the beach, sand and shingle are rolled la seaward once again with the backwash.

8. Discuss **one** form of sub-aerial weathering.

9. Discuss the timescales on which different forms of mass movement occur.

10. Assess the role of run-off on coastal erosion.

Extension Questions (A Level)

11. Assess the role of the Moon in affecting tides.

12. Explain the purpose, advantage(s) and disadvantage(s) of the structures sho

Extension Questions (AS Level)

11. Assess the importance of the Moon in the effect of tides.

12. Outline the role of longshore (littoral) drift in coastline development.

Preview of Questions Ends Here

Answers

Test 1 – Natural Systems

1. 3 marks
Open systems (1 mark – mandatory) – there are many inputs of energy and mat
transport lead to outputs (1 mark).

Also award credit for examples of inputs, outputs and components.

2. 2 marks
A system where inputs and outputs (1 mark) are equal (1 mark).

3. 4 marks
This question is worth four marks.
Give credit for positive and negative feedback cycles.
Discussion will include erosion and deposition – e.g. erosion of a beach during a
to dune creation.

4. 3 marks
One mark will be awarded for each two correct answers.
1. Landscape of erosion
2. Waves and winds (i)
3. Wave energy is dissipated (o)
4. Landscape of deposition (c)
5. Removal of material outside of a sediment cell (o)
6. Sea level change (i)

5. 4 marks
The sun (1 mark) – differential heating of the Earth's surface creates wind (1 m
ocean forms waves (1 mark). Waves provide energy for erosion to occur (1 ma

Allow other discussions – e.g. other sources of energy – e.g. currents and tide. T
(the Sun), but do not penalise this.

6a. 3 marks
Allow three points:
- Waves are powerful and erosive.
- The beach is likely to be eroded (e.g. material transported out to sea).
- The beach profile is also likely to change – e.g. a storm beach may develop.
- Any other valid point(s).

6b. 3 marks
Allow three points:
- Material deposited out at sea will absorb wave energy.
- The wave energy reaching the beach is reduced.
- Therefore deposition is more likely to occur.
- Any other valid point(s).

7. 3 marks
Allow one mark per two correct labels.
N.b. high and low water marks have been added for reference, to assist with labelling.

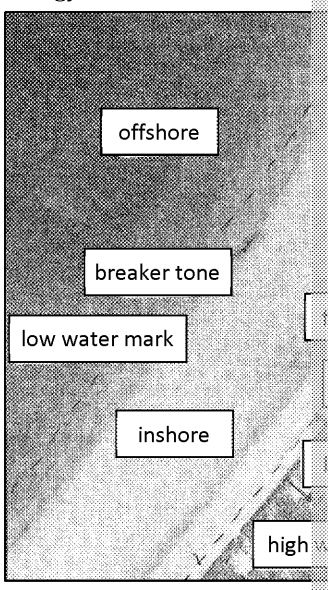

Image courtesy of Google Earth
© 2016 Google
Image © 2016 DigitalGlobe © 2016 Infoterra Ltd & Bluesky

8. 6 marks
Allow **two** marks per concept:
- **Weathering** – in situ destruction of rock [1], later eroded by weathering [1]
- **Erosion** – movement of weathered material away from the source [1], via a currents, wind or rivers [any one].
- **Mass movement** – land-based movement [1], downhill because of gravity [1]

9. 3 marks
Fetch controls the energy of waves (1 mark). The fetch is the distance that wind (1 mark), and is affected by the coastline – i.e. barriers (1 mark).

10. 7 marks
Allow one mark for each pair of points mentioned.

	Constructive	
Frequency	Less than 8 per minute	M
Height	Low	
Wavelength	Long	
Description	Spill	
Swash	Quickly dissipated into the beach material	Stoppe
Backwash	Gentle	
Occur	Day to day	

Extension Questions (A Level)

11. 4 marks
Allow one mark each (total of four):
1. Wind blows across the surface.
2. This causes drag (due to friction).
3. Crests and troughs develop as water moves forwards.
4. Waves grow in height near the coast where water is shallow.
5. Friction from the sea bed slows the bottom of the wave.
6. The wave breaks as the top of the wave, not slowed by friction, overtakes t

12. 6 marks
Allow a reasoned discussion, which includes a selection of the following. This q
- Formation of waves.
- Discussion of prevailing wind.
- Discussion of erosional and depositional features (both by the sea and aeo
- Wind direction affects the shape and features of spits.
- Sand erosion and dune formation.

Extension Question (AS Level)

12. 9 marks
Allow a reasoned discussion relating to wind and other coastal processes, culmi relative importance of wind vs. other factors such as waves, site of the beach, g forms of erosion and sub-aerial processes, mass movement, and tides, etc., whic following.
- Formation of waves and discussion of types and power of waves.
- Discussion of prevailing wind.
- Discussion of erosional and depositional features (both by the sea and aeo
- Wind direction affects the shape and features of spits.
- Sand erosion and dune formation.

Preview of Answers Ends Here