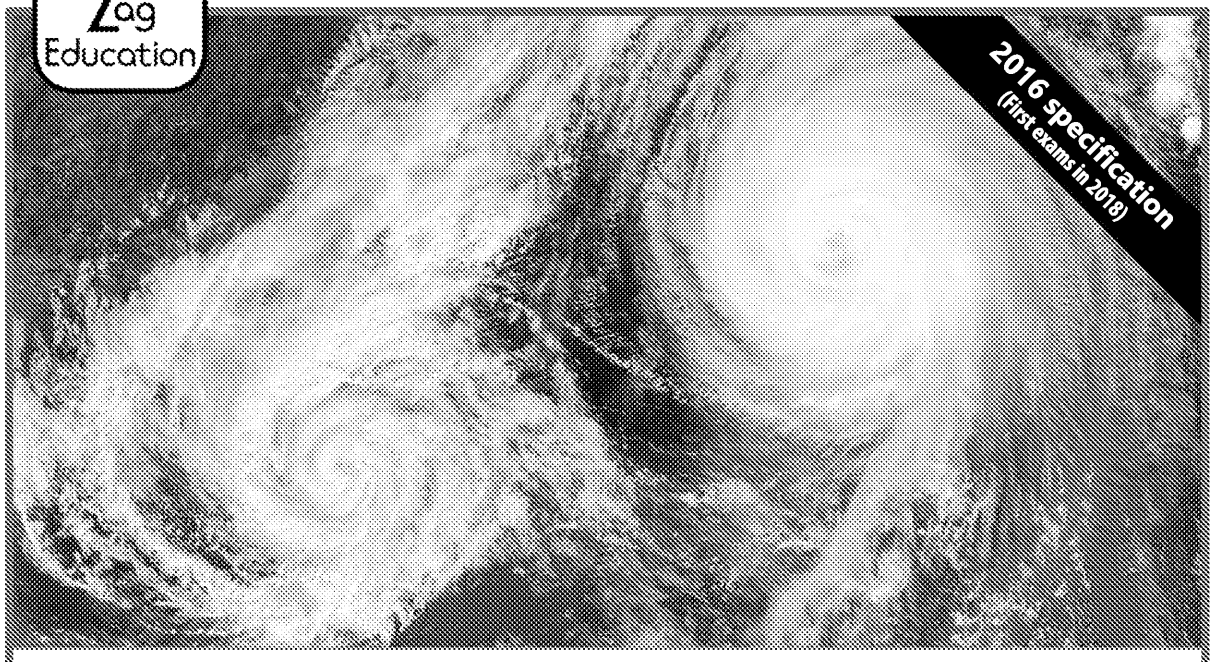
Zig Zag Education

Geography

GCSE (9–1) | AQA | 8035



Topic Tests
for GCSE AQA Geography

The Challenge of Natural Hazards

zigzageducation.co.uk

POD 6720

Contents

Teacher's Introduction

This resource has nine tests on the *Section A: The Challenge of Natural Hazards* elem
Geography curriculum. Every aspect of the specification is covered in this resource.

These topic tests are designed to test the students' knowledge and enable the te
strengths and weaknesses in certain areas. Each test covers a range of question ty
is a wide variety of stimulus material. These tests are not intended to mimic exam

Mark schemes for each topic test can be found at the back of this resource. For
one answer is acceptable, a model answer has been provided. For 'open' and ex
lower marking criteria have been included.

When to Use This Resource
This resource can be used at the end of the unit when the students have revised or a
confidence in a particular topic area. The students can also use the tests for revision
The number of tests in this resource should allow one test to be delivered every fort
when used in association with the full set of topic tests for this specification.

To allow differentiation and extension opportunities each test has been written in tw
approximately 40 marks and will test knowledge of the core elements of the specific
approximately 10 further marks of extended knowledge to push more-able students

How to Use This Resource
The tests can be completed individually in class, perhaps as a way to assess learning
They can also be completed as homework tasks. The tests can be quickly marked by
home or in the classroom, as answers are provided.

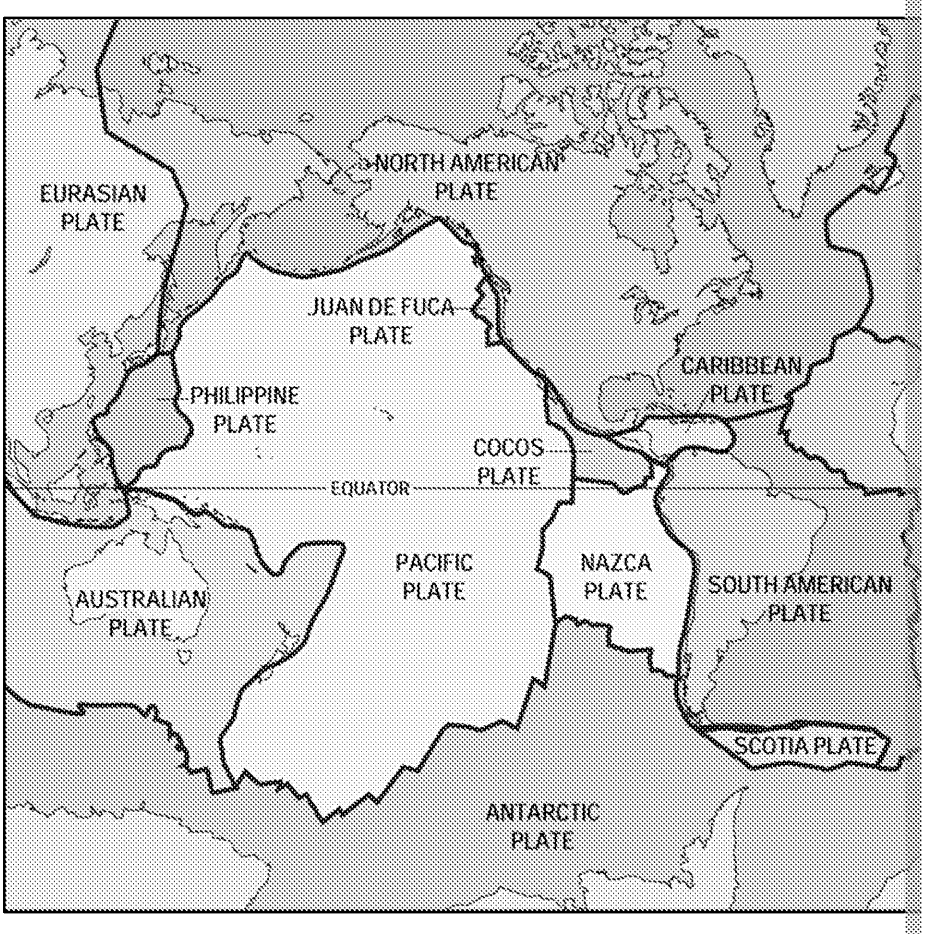
At the end of the test the students can mark their own or each other's work using th
can make a note of their scores, which enables a monitoring of progress.

The Benefits to the Student
The students can be confident they have been tested on every aspect of the specific
students will know which areas they are strong in, and which require further work.

The students can use the tests when they have revised – this tests their initial level o
through the tests they can see how they have improved. Furthermore, they can use
aid by masking their answers and quizzing themselves.

1. Study the map below which shows the margins of tectonic plates.

   Compare the map of plate margins with your knowledge of the distri
   volcanoes which have occurred worldwide.



.....

.....

.....

.....

.....

.....

2. Complete the table to compare between **three** types of plate margins.

Type of margin	Sketch of the margins showing directions of plate movement *(1 mark each)*	Features and hazards found at the margin *(2 marks per margin)*
Constructive		1. 2.
Destructive		1. 2.
Conservative		1. 2.

3. Using the outline map provided in question 1, draw on arrows to show movement for **one** example each of a constructive, destructive and con

4. Identify the **two** types of the Earth's crust, and give **two** features of ea

Type of crust	Features of each
	1. 2.
	1. 2.

5. Outline how a volcano is formed.

.....

.....

.....

6. Describe the properties of shield volcanoes and composite volcanoes. margins that they are located on, and explain why.

Shield volcanoes: .....

.....

.....

.....

Composite volcanoes: .....

.....

.....

.....

7. Outline **two** causes of tsunamis.

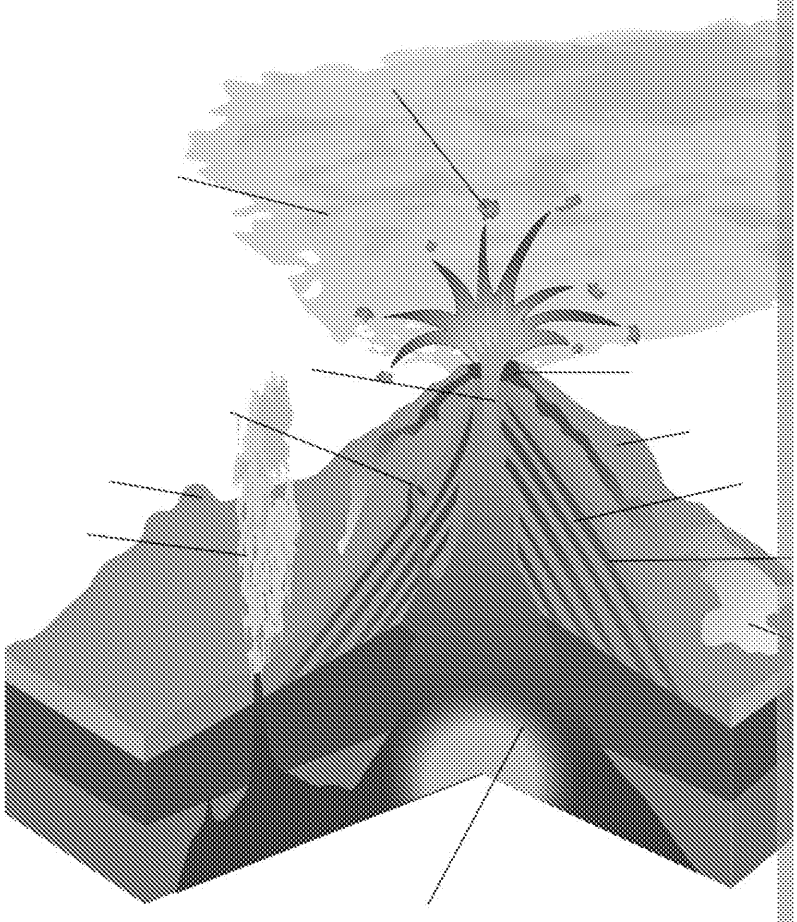
1: .....

.....

2: .....

.....

8. Complete the diagram of a volcano by adding labels from the grid bel
One mark is available for each two correct labels.



Lava flow	Crater	Fumarole
Volcanic ash cloud	Ash layer	Volcanic bomb
Magma chamber	Main vent	Solidified lava lay

Extension Questions

9. *'Destructive plate margins may be more hazardous than constructive margin*
Suggest why this may be.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

10. Explain why there are occasionally tectonic hazards located away fro

.....

.....

.....

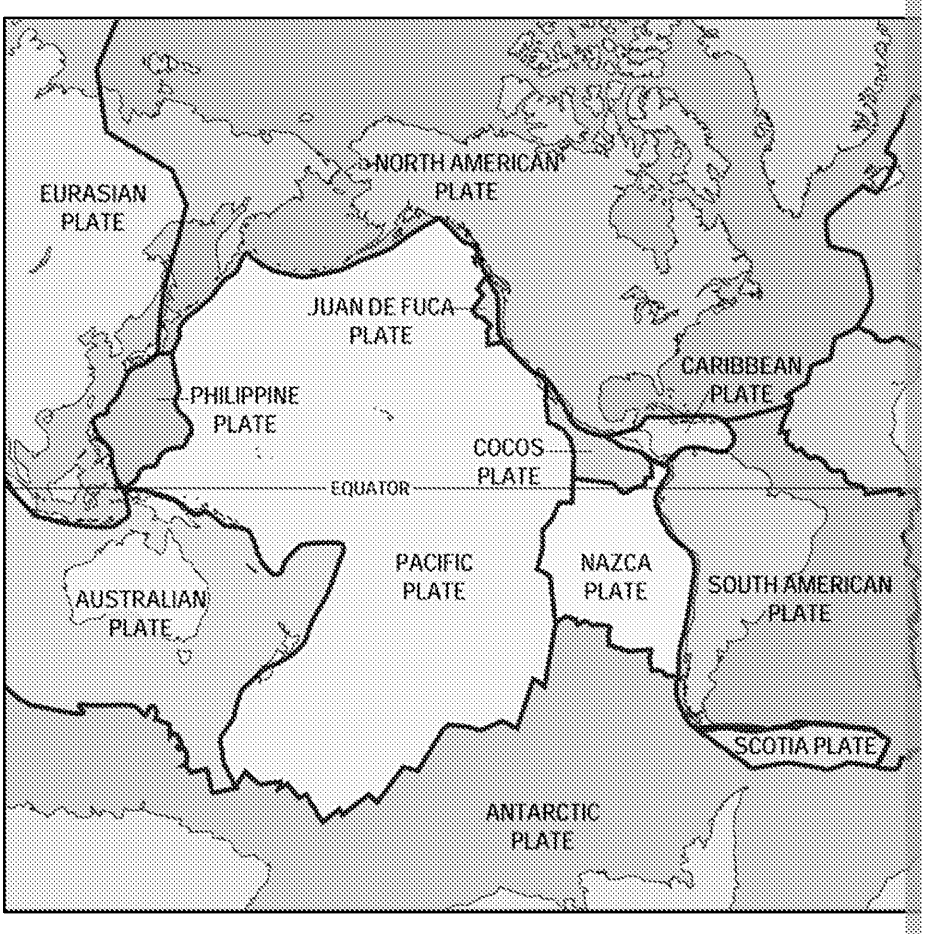
.....

.....

.....

1. Study the map below which shows the margins of tectonic plates.

   Compare the map of plate margins with your knowledge of the distri
   volcanoes which have occurred worldwide.



2. Copy and complete the table to compare between **three** types of plate

Type of margin	**Sketch of the margins showing directions of plate movement** *(1 mark each)*	**Features and hazards found at the margin** *(2 marks per margin)*
Constructive		1. 2.
Destructive		1. 2.
Conservative		1. 2.

3. Using the outline map provided in question 1, draw on arrows to sho
   movement for **one** example each of a constructive, destructive and co

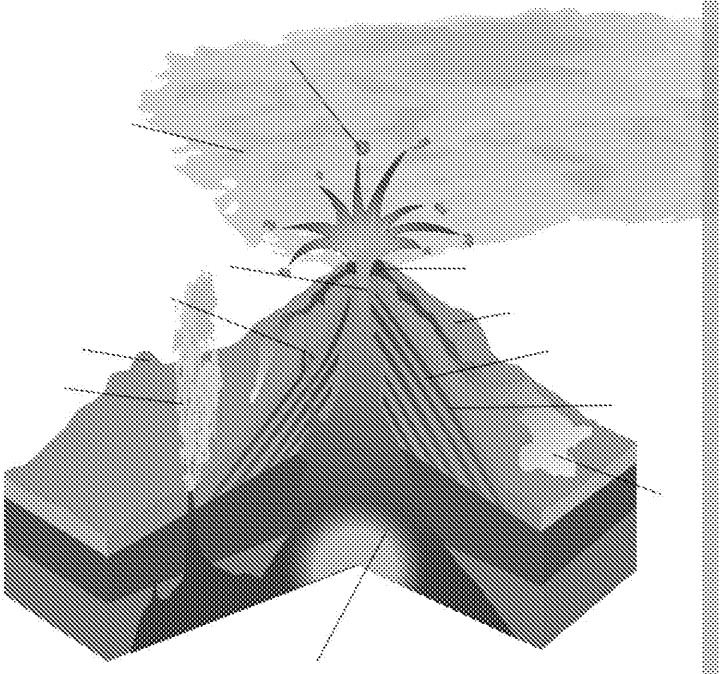
4. Identify the **two** types of the Earth's crust, and give **two** contrasting fe

5. Outline how a volcano is formed.

6. Describe the properties of shield volcanoes and composite volcanoes. margins that they are located on, and explain why.

7. Outline **two** causes of tsunamis.

8. Copy and complete the diagram of a volcano by adding labels from th *One mark is available for each two correct labels.*



Lava flow	Crater	Fumarole
Volcanic ash cloud	Ash layer	Volcanic bomb
Magma chamber	Main vent	Solidified lava laye

Extension Questions

9. *'Destructive plate margins may be more hazardous than constructive margin* Suggest why this may be.

10. Explain why there are occasionally tectonic hazards located away fro

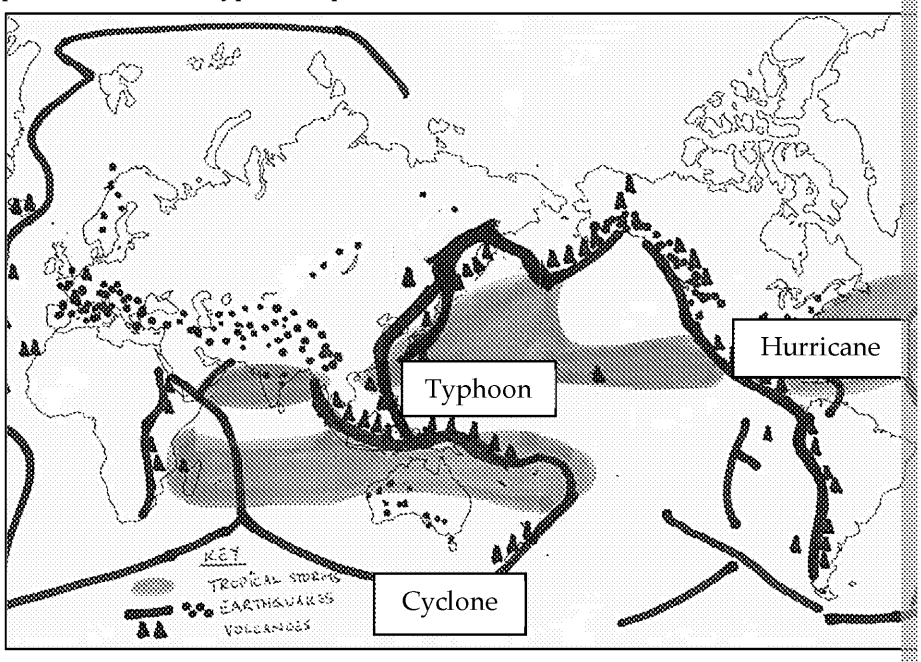
Preview of Questions Ends Here

Answers

Test 1 – Natural Hazards

1. A potentially disastrous event, beyond human control (1 mark), which can caus
who are affected (1 mark).

2. Allow two marks for the correct or sensible placement of earthquakes and volca
placement of each type of tropical storm.



3. The Ring of Fire (1 mark)

4. The heavy oceanic (Pacific) plate is subducted at its destructive margins (1 mar
(1 mark), and producing magma for volcanic activity (1 mark). (Maximum of tw

5. Allow any two answers from each category:
Earthquakes:
- Proximity to plate margins
- Proximity to old fault lines
- Magnitude of the earthquake
- Depth of earthquake
- Distance to the epicentre
- Level of development of the country (e.g. poor quality of structures)
- Large populations living in cities and settlements near to plate margins
- Poor land-use zoning
- Time of day – people may be asleep, or in schools and public buildings, or c
danger
- Any other valid point(s)

Volcanoes:
- Proximity to active volcanoes (e.g. destructive (and constructive) plate ma
- Type of eruption – e.g. explosive rather than effusive
- Absence of warning systems
- Cities within the shadow of a volcano
- Island may be located on a hotspot
- Any other valid point(s)

Tropical Storms:
- Proximity to the coasts or islands within the track
- Presence of warning systems and predictions
- Strength of the storm
- Preparation and preparedness
- Level of development of the country (e.g. poor quality of structures)
- Ocean temperature and El Niño and La Niña (increase frequency in differe
- Any other valid point(s)

6. Allow one mark for each type, and one mark for each example (other example a
   - Drought – Southern England, 2006
   - Flash Flooding – Boscastle, 2004
   - Winter storms – 2013–2014
   - Extreme cold – winter 2012–2013
   - Heatwave – June–July 2015

7. This list is not exhaustive:

Type of hazard	Problems that each hazard can cause *(allow any two per hazard)*	Way t *(*
Tsunami	• Can travel long distances inland causing much damage to property – homeless population • Deaths from crushing and drowning • Many injured • Damage to food and water supplies, and farmland • Pollution from sewage • Roads and transport become blocked from debris – ships may travel inland!	• Earl • Evac • Stoc supp • Buil
Droughts	• Death of crops and livestock (famine) or increased food price due to scarcity or extra food/water given to livestock • Reduction of water supply • Soil erosion 'dust bowl' • Increased forest-fire risk • Businesses affected / less profitable • Over-reliance on groundwater	• Buil time • Use • Grov
Floods (including flash floods)	• Damage to property • Floodwater may be contaminated by sewage • People could get swept into rivers and drown / catch hypothermia • Could happen quickly (e.g. Boscastle, 2004)	• Plan wat • Stop • Impl (soa • Rem rest
Heatwaves	• Cause heat-related deaths • May be accompanied by a drought or period of unusually dry weather	• Insta • Regu are
Winter storms	• Flooding • Storm surges • Wind damage to property • Communication and power lines damaged	• Ensu mai • Prep etc.
Extreme cold	• Pipes may burst • Roads may be covered in ice or snow, causing accidents • Hypothermia and other health issues • Structures could collapse under the weight of ice and snow • People and businesses could be snowed in, unable to travel and business could be lost • Food deliveries may not arrive • Increased fuel costs – e.g. heating, especially those living in fuel poverty • Deaths of livestock (e.g. snowdrifts), increased costs to provide hay and feedstuffs to livestock • Damage to crops – increased food prices	• Chec neig • Have • Ensu • Farm to lo

Extension questions

8. Developing countries are less likely to have well-built houses and structures, war
   - Developing countries may not have the finances or labour to effectively co
     reliant on the international community for assistance.
   - The developing world has large settlements, which may be less well-plann
     world. Hazard zoning may be less advanced, if present.
   - Many areas where hazards occur are located in the developing world.

   High-level answer:
   - Good explanation and opinion.
   - Well supported by facts and exemplar material – e.g. a comparison betwee
     developed and developing world.
   - Well illustrated with technical, geographical terms, statements are wholly

   Lower-level answer:
   - Less judgement or opinion.
   - Some facts presented, with one or two insightful examples provided.
   - Some facts may be incorrect or contradictory, with fewer instances of geog

9. May occur with little or no warning (e.g. sudden earthquakes), or there may not
   prepare.
   - Large-scale events which affect large areas.
   - An area may be prone to several different types of hazard.
   - The hazard may produce a variety of effects – e.g. volcanoes may have lava
     pyroclastic flows.
   - Lots of people may live in the affected region.
   - The region may be very productive – e.g. for farming, meaning that people
   - Any other valid point(s).

   High-level answer:
   - Many well-developed points.
   - Well supported by facts and exemplar material.
   - Well illustrated with technical terms, statements are wholly accurate.

   Lower-level answer:
   - Less judgement or opinion, fewer points are raised.
   - Some facts presented, with one or two insightful examples provided.
   - Some facts may be incorrect or contradictory, with fewer instances of geog

Preview of Answers Ends Here