



Earthquakes & Volcanoes
Geography Marking Scheme
Higher Level

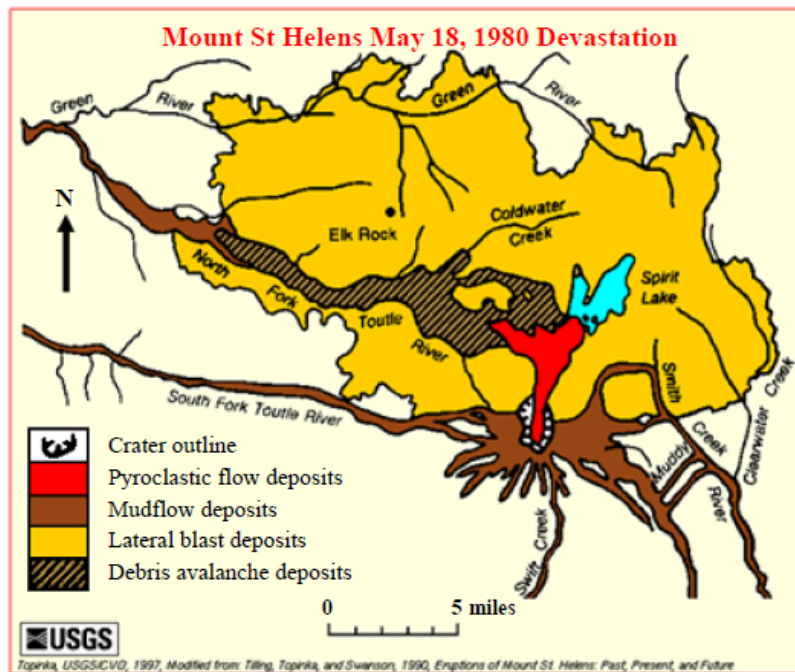
2013

Section 1 – Q3

- (i) C Focus
- D Epicentre
- A Seismic waves
- B Fault line
- (ii) Any two valid explanations

Section 2 – Q3 A

A. Volcanoes



Examine the map and legend above showing the extent of the materials deposited as a result of the eruption of the Mount St Helens volcano and answer the following questions.

- (i) What were the most extensive deposits as a result of the eruption?
- (ii) What was the direction of the pyroclastic flow deposits?
- (iii) What distance did the pyroclastic flow deposits extend to?
- (iv) Name **two** examples of pyroclastic materials.
- (v) Explain briefly why some volcanoes erupt violently.

[20m]

Five parts @ 4 marks each.

- | | | |
|-------|-------------------------|-------------|
| (i) | Lateral blast deposits | 4 marks |
| (ii) | North West - North East | 4 marks |
| (iii) | 5-5.2 miles | 4 marks |
| (iv) | Any two named | 2 + 2 marks |
| (v) | Any valid explanation | 2 + 2 marks |

Q3 C

C. Earthquakes and Volcanoes

Explain how the occurrence of earthquakes and volcanic eruptions can be monitored and predicted.

[30m]

Explanation

15 x SRPs

- If only earthquakes or only volcanoes discussed max 8 x SRPs.

2012

Section 1 – Q 4

Q.4 G
 C
 B
 H
 A
 E
 D
 F

Section 2 – Q1 C

C. **Earthquakes**

Explain, with reference to examples that you have studied, how the theory of plate tectonics helps to explain the distribution of earthquakes around the world.

[30m]

Global examples/locations of earthquakes	2+2 marks
Discussion	13 x SRPs

- If no link made between the theory of plate tectonics and earthquakes, maximum of 6 x SRPs
- Credit relevant labelled diagram for 1 x SRP
- Credit extra relevant information on labelled diagram for 2 x SRPs
- Diagram without labelling = 0 marks

2011

Section 1 – Q1 C

B. Volcanoes

Discuss the positive impacts of volcanic activity.

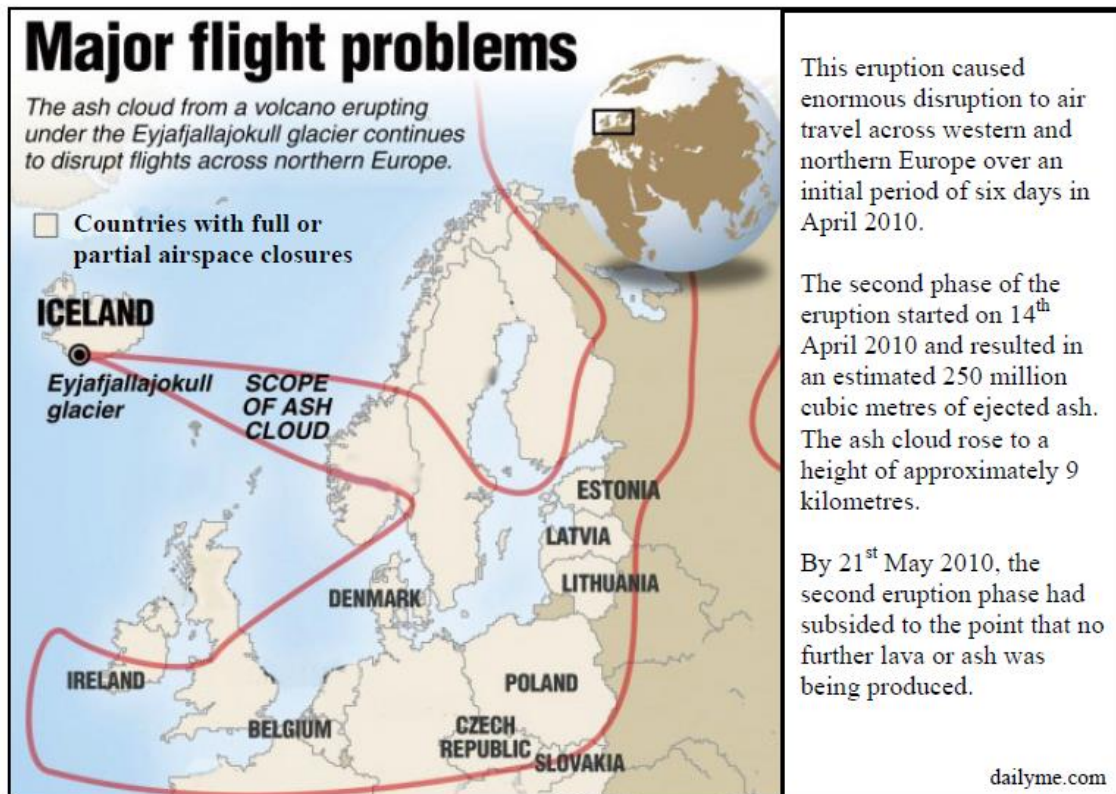
[30m]

Positive impacts identified	2 + 2 marks
Discussion	13 × SRPs

- Credit 1 named volcano or volcanic area from discussion SRPs
- All other positive impacts must be discussed for SRPs
- Credit relevant extra information on relevant labelled diagram(s) relating to positive impacts
- Give credit for 1 SRP for diagram without annotation.

Q3 A

A. Volcanoes



Examine the data above relating to the Eyjafjallajökull volcano which erupted in April 2010 and answer the following questions:

- (i) What approximate height did the volcanic ash cloud rise to?
- (ii) How many cubic metres of ash were ejected by the volcano?
- (iii) Name **two** countries not named on the map which had full or partial airspace closures.
- (iv) Briefly explain why volcanic activity occurs in Iceland.

[20m]

Four parts @ 5 marks each

- | | | |
|-------|--|-------------|
| (i) | 9 kilometres | 5 marks |
| (ii) | 250 million | 5 marks |
| (iii) | Germany, Netherlands, Finland, France, Norway, Austria, Hungary, Sweden, Britain, Northern Ireland, England, Scotland, Wales (any two) | 3 + 2 marks |
| (iv) | Explanation | 3 + 2 marks |

Section 1 – Q3 A

A. Earthquakes



Examine the map above relating to the earthquake in Haiti in January 2010 and answer the following questions in your answer book:

- (i) Activity along which **two** plates resulted in the earthquake in Haiti?
- (ii) What type of fault caused the earthquake?
- (iii) Describe the fault responsible for the earthquake.
- (iv) What tectonic activity along the subduction zone created the island arc on the map?

[20m]

Four answers @ 5 marks each:

- | | | |
|-------|-------------------|---|
| (i) | 3 marks + 2 marks | North American Plate / Caribbean Plate |
| (ii) | 5 marks | Transform / Transverse / Tear / Passive / Neutral |
| (iii) | 3 marks + 2 marks | Any valid description |
| (iv) | 5 marks | Volcanic Activity / Rock Melting etc. |

2008

Section 1 – Q2 B

B. VULCANICITY

Explain how the study of plate tectonics has helped us to understand the global distribution of volcanoes.

[30m]

Global Examples: 2 marks + 2 marks
Plate tectonics examined: 13 x SRPs

- Examination all on plate tectonics - max 6x SRPs.
- Give credit to relevant diagrams for a max of 2 x SRPs and credit extra annotated information on diagrams.
- No credit for the effects of volcanoes.

Q3 C

C. EARTHQUAKES

Examine, with reference to actual examples, the measurement and effects of earthquakes.

[30m]

Measurement identified: 2 marks
Effects identified: 2 + 2 marks
Named Examples: 2 + 2 marks
Discussion: 10 x SRPs (5 x SRPs per each aspect)

2007

Section 1 Q3 A

A SATELLITE IMAGES

Name an example of a volcano which you have studied.

State **two** advantages and **one** disadvantage for people living in a volcanic region

(20 marks)

Four answers @ 5 marks each

- No grading / scaling of marks.

Q3 B

B STRUCTURES OF DEFORMATION

Examine the impact of **folding and faulting** on the landscape.

In your answer refer to **one** landform in **each** case.

(30 marks)

Folding

Named landform: 2 marks

Discussion: 7(6) x SRPs

Faulting

Named landform: 2 marks

Discussion: 6 (7) x SRPs

- Credit relevant labelled diagrams.
- Give credit for one named example of each landform

2006

Section 1 – Q3 C

C VOLCANOES

Examine the processes that have led to the formation of any **two** volcanic landforms.

(30 marks)

For each of two landforms:

Naming landform:

2 marks each

Processes discussed:

5 SRPs

Overall coherence (over both landforms):

6 marks graded.

- Unless there is reasonable difference in processes, reduce the overall coherence accordingly.

OR (where processes are dealt with as a unit)

Volcanic landforms or examples identified:

2 marks each

Processes discussed

10 SRPs

Overall coherence:

6 marks graded

- Give credit from the SRPs for diagrams & labelling for new information.
- Give credit from the SRPs for one example of each landform
- If only 1 landform / example identified, OC = 0m.
- Accept process-based answer.