# Year 5 Geography Assessment: The Power of Volcanoes

*Learning objective: To assess understanding of volcanic formation, the distribution of volcanoes globally, and the impact of volcanic activity on the landscape and human life.*

Read each question carefully. Use your geographical knowledge to provide detailed, accurate answers. Ensure you use appropriate scientific terminology.

Nova the owl has been observing the Earth's shifting crust. She notes that beneath our feet, the ground is not one solid piece, but a jigsaw of massive sections. When these sections move, collide, or pull apart, they create pathways for molten rock to reach the surface. This process shapes mountains, creates islands, and dramatically alters the environment for all living creatures.

*Word bank: tectonic plates · magma · lava · crater · vent · eruption · geothermal · ash cloud · Ring of Fire*

**1. Explain the difference between magma and lava. (2 marks) (2 marks)**

**2. Name two physical features that are formed as a result of volcanic activity. (2 marks) (2 marks)**

**3. Describe the location of the 'Ring of Fire' and explain why it is named this way. (3 marks) (3 marks)**

**4. Compare and contrast the immediate dangers of a volcanic eruption with the long-term benefits to the surrounding soil. (4 marks) (4 marks)**

**5. Justify why people might choose to live near an active volcano despite the risks involved. (4 marks) (4 marks)**

**6. What might happen to the local climate and air quality if a volcano erupts with significant force, releasing vast amounts of ash into the atmosphere? (5 marks) (5 marks)**

**7. Max the monkey is calculating the cost of emergency supplies for a village near a volcano. If one emergency kit costs £42.50, calculate the total cost for 6 kits. (5 marks) (5 marks)**

**Draw: Draw a cross-section diagram of a volcano. Clearly label the magma chamber, the main vent, the crater, and a flow of lava.**

*Extension challenge: Total: /25. Extension: Nova the owl asks: 'If tectonic plates ceased their movement tomorrow, how would the Earth's landscape change over the next million years?' Write a persuasive paragraph justifying your theory.*