

Name \_\_\_\_\_

## The Fiery Birth of Igneous Rocks: Unraveling the Magma Magic

### Open-Ended Response Answer Key

1. While the geological features may vary, you might observe volcanic cones, lava flows, and volcanic ash deposits. These features indicate the island's volcanic history, with cones representing past eruptions, lava flows forming the island's terrain, and ash deposits showing the aftermath of explosive eruptions.
2. Volcanic eruptions can have both positive and negative impacts. They can enrich the soil with nutrients, making it fertile for agriculture. However, they can also cause destruction, including the loss of homes and disruption of ecosystems. The lava flows can reshape landscapes and affect water resources.
3. Studying igneous rocks is essential for understanding the Earth's geological history, such as the movement of tectonic plates and past volcanic activity. Additionally, these rocks have practical applications in construction, as they can be used as durable building materials.
4. To study a volcano up close, you would need protective gear like heat-resistant suits, helmets, and gas masks to safeguard against extreme heat and harmful gases. You would also require specialized equipment like heat-resistant cameras and tools for collecting samples safely.

