

Name _____

Volcanoes Beyond Earth: Exploring Volcanic Activity on Other Planets

Open-Ended Response Answer Key

1. Answers should compare and contrast the geological features, eruption styles, and underlying causes of volcanic activity on Mars, Venus, and Io.
2. Answers may include challenges related to studying a distant celestial body, such as Mars, along with opportunities for scientific discovery and gaining insights into Martian geology.
3. The study of volcanoes on other celestial bodies can help scientists understand the diversity of volcanic processes, the impact of planetary conditions, and how these insights can be applied to Earth's volcanoes.
4. Answers should consider potential benefits such as access to geothermal energy and challenges like the need for advanced technology and protection from volcanic hazards. Discuss the broader implications for human colonization beyond Earth.

