

Name _____

Volcanoes and Climate Change: Uncovering the Connection

Multiple Choice Questions

1. Which gas released by volcanoes can contribute to global warming by trapping heat in the Earth's atmosphere?
 - a. Oxygen (O₂)
 - b. Carbon dioxide (CO₂)
 - c. Nitrogen (N₂)
 - d. Hydrogen (H₂)

2. What effect do sulfur dioxide (SO₂) aerosols from volcanic eruptions have on the Earth's surface temperature?
 - a. They have no effect on temperature.
 - b. They cause immediate warming.
 - c. They lead to short-term cooling.
 - d. They cause long-term cooling.

3. What is the "volcanic cooling paradox"?
 - a. The idea that volcanic eruptions always lead to cooling.
 - b. The notion that volcanoes have no impact on the climate.
 - c. The unexpected cooling effect caused by volcanic aerosols.
 - d. The long-term warming effect of volcanic eruptions.

4. How do volcanic eruptions affect weather patterns?
 - a. They have no impact on weather patterns.
 - b. They lead to increased rainfall worldwide.
 - c. They can disrupt weather patterns, causing changes in precipitation.
 - d. They only affect local weather.

5. What is the role of computer models in studying volcanic eruptions and their effects on climate?
 - a. Computer models cannot simulate volcanic eruptions.
 - b. Computer models help improve our understanding of these interactions.
 - c. Computer models are used to predict the exact timing of volcanic eruptions.
 - d. Computer models are primarily used for weather forecasting.

