Name _____

Volcanic Activity Causes

Directions: Volcanoes don't erupt for the same reasons everywhere. On Earth, they are shaped by plate tectonics, but on other planets and moons, different forces are at work. Read each statement below and decide whether it describes a cause of volcanic activity on **Earth (E)**, on **Other Planets/Moons (P)**, or on **Both (B)**. Write E, P, or B on the line.

1. Heat from Earth's interior melts rock at subduction zones, creating magma. _____
2. Tidal forces from Jupiter's gravity stretch and heat a moon's interior, causing eruptions. _____
3. Magma rises through cracks in tectonic plate boundaries. _____
4. Giant shield volcanoes form where there are no moving plates, allowing lava to pile up for millions of years. _____
5. Hotspots deep within the mantle push magma upward, even in the middle of tectonic plates. _____
6. Volcanic activity is fueled by heat trapped inside a planet or moon since its formation. _____
7. Eruptions occur mostly along mid-ocean ridges and subduction zones. _____
8. Eruptions involve unusual materials like sulfur and sulfur dioxide instead of just lava and ash. _____

Reflection Question: Why do you think scientists study volcanoes on other planets and moons as well as on Earth? Write 2-3 sentences.

_____

_____

_____