Name _____

Fiery Giants: Volcanic Eruptions and Tectonic Plate Boundaries

Short Answer Key

1. Volcanic eruptions are related to the movement of tectonic plates because they often occur at plate boundaries. Magma rises from the mantle at these boundaries, creating volcanic activity when it reaches the Earth's surface.
2. Subduction is the process where one tectonic plate is forced beneath another at convergent plate boundaries. The descending plate melts, forming magma chambers that can lead to explosive volcanic eruptions.
3. The Ring of Fire is a region encircling the Pacific Ocean known for its high levels of volcanic activity and earthquakes. It is a hotspot for volcanic eruptions due to its numerous convergent and transform plate boundaries.
4. Transform plate boundaries contribute to volcanic activity when the stress along fault lines causes magma to rise. They can create features like volcanic islands and undersea volcanoes.
5. Volcanic eruptions can have negative impacts, such as damage to the environment, destruction of homes, and loss of life. However, they also create fertile volcanic soils, geothermal energy sources, and can even form new landmasses and islands, providing opportunities for agriculture and development.