

Name \_\_\_\_\_

## Hot Spots and Tectonic Plates: Where Earthquakes Commonly Occur

### Open-Ended Response Questions

1. Research and describe a famous earthquake that occurred within the Pacific Ring of Fire. Discuss its impact on the affected region and any lessons learned from it.
2. Investigate a hot spot region and provide details about the geological features and associated volcanic and seismic activity. How do hot spots differ from plate boundaries in terms of geological activity?
3. Intraplate earthquakes can be challenging to predict. Explain why this is the case and discuss any efforts made by scientists to improve intraplate earthquake forecasting and preparedness.
4. Analyze the role of plate tectonics in shaping the Earth's surface. How do the movements of tectonic plates influence not only earthquakes but also the formation of mountains, ocean basins, and continents?

