

Name _____

Unveiling the Earth's Crust: Discovering the Importance of the Lithosphere

Open-Ended Response Answer Key

1. Living near a convergent plate boundary can involve the risk of earthquakes, volcanic eruptions, and tsunamis. Safety measures might include earthquake-resistant building designs, evacuation plans, and monitoring systems for volcanic activity.
2. Mining and extracting natural resources from the lithosphere can lead to environmental challenges such as habitat destruction, water pollution, and soil erosion. These challenges can be addressed through responsible mining practices, reclamation efforts, and sustainable resource management.
3. Subduction at convergent plate boundaries occurs when a denser oceanic plate sinks beneath a less dense continental plate. This process can lead to the formation of deep ocean trenches and volcanic arcs, shaping the Earth's surface.
4. The study of the lithosphere and tectonic plate movement is essential for predicting and mitigating natural disasters because it helps scientists identify areas at risk of earthquakes, volcanic eruptions, and tsunamis. Early warning systems and disaster preparedness measures can be implemented to protect communities.

