

Name _____

Dancing Plates and Rock Transformations: The Intricate Relationship Between Plate Tectonics and the Rock Cycle

Open-Ended Response Questions

1. Describe the three main types of plate boundaries (divergent, convergent, and transform) in detail, including their characteristic movements and interactions.
2. Discuss the role of metamorphism in the rock cycle and how it relates to plate tectonics, especially at convergent boundaries.
3. Explain the concept of subduction at convergent boundaries and how it leads to the formation of certain types of rocks.
4. Explore the analogy between plate tectonics and a grand ballet performance. How does this analogy help us understand the complex interactions on Earth's surface?

