Plate Tectonics Test Review

Learning Targets:

\* I can explain how accretion, density and gravitational forces form different layers.

\* I can differentiate the characteristics of Earth's layers.

\* I can analyze how Seismic evidence led to our understanding of Earth's interior.

\* I can analyze the formation of the magnetosphere.

\* I can analyze the evidence used to support the Theory of Continental Drift.

\* I can understand how technology (Mapping, SONAR and Magnetometer) led to the current Theory of Plate Tectonics.

\* I can understand the mechanisms of Plate movement.

\*I can compare different landforms developed at the three types of plate boundaries.

\* I can investigate the relationship between plate tectonics, earthquakes, volcanoes and mountain building.

*Answer these questions in preparation for the Plate Tectonic Test.*

1. Why is Earth’s inner core solid while the outer core is liquid?

2. What causes the Earth’s magnetic field (magnetosphere)?

3. Diagram the 4 layers of Earth’s interior? List their state of matter and composition.

4. As the Earth cooled, where did the densest and least dense materials settle?

5. Why is the magnetosphere important to life on Earth?

6. Why is magma hot?

7. Compare the “Lithosphere” and the “Asthenosphere,” and describe how they interact.

8. Why does Earth’s interior have differentiation (layers)? In your answer discuss Earth’s heat engines and the role of density.

9. Describe in detail how scientists use Seismic Waves to determine what Earth’s interior is like (hint P waves and S-waves).

10. Where is crust destroyed and where is crust created?

11. What was the Theory of Continental Drift?

12. Why was Alfred Wegener’s theory rejected in 1912?

13. Describe the evidence of Plate Tectonics.

14. Why does oceanic crust subduct under a continental crust?

15. What features are created at convergent boundaries?

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17. How do plates interact at transform boundaries?

18. Explain how convection currents work.

19. Why does Volcanism occur at convergent plate boundaries?

20. Describe one geologic feature and explain how it formed?