Plate Tectonics Test Review

1. Earth's temperature increases with depth. What is a result of the motion of materials caused by high temperatures in Earth's mantle?

2. Convection currents in the mantle contribute to tectonic plate movement. What is a convection current?

3. Unlike Florida, a transform boundary passes through California. What happens at a transform boundary that can cause an earthquake?

4. Mr. Garcia told his seventh-grade class that, as a tectonic plate moves farther from a mid-ocean ridge, it cools and becomes denser. At a subduction zone, the dense oceanic plate sinks back into the asthenosphere. The weight of this sinking plate then drags the rest of the plate downward. What is Mr. Garcia describing?

5. Volcanoes often form at convergent plate boundaries. Draw arrows to represent a convergent plate boundary.

6. Mount Everest formed when two tectonic plates collided. What process lead to the formation of Mount Everest?

7. The motion of tectonic plates can cause both slow and rapid changes in Earth's surface. What is an example of a rapid change?

8. What happens at a divergent tectonic plate boundary?

9. Tectonic plates can be made of continental crust or oceanic crust, or a combination of the two. Besides their location, how else are these two kinds of crust different?

The map below shows the location of the Peru-Chile Trench.

10. Draw arrows to best represent the motions of Earth's crust at the Peru-Chile Trench.

11. Scientists think the continents once formed a large, single landmass that broke apart, and the continents slowly drifted to their present locations. What is the name given to this hypothesis?
12. Florida is not close the edge of a tectonic plate. Therefore, what feature does not exist in or beneath Florida?

13. The Red Sea formed as the African Plate moved apart from the Arabian Plate. Which type of boundary was involved in the formation of the Red Sea?

14. The Rocky Mountains formed when the Pacific plate collided with the North American plate. What describes this process?

15. What are the three mechanisms that have been proposed to explain the movement of Earth’s tectonic plates?

16. Earth is composed of layers of material with different properties. Which layer is most likely to be in constant motion?

17. What is the outermost layer of the Earth called?

18. Which layer of the Earth is broken into tectonic plates?

19. What is the correct order Earth’s layers from the center to the surface?

20. A student uses clay to construct a model of Earth. Which layer of the model should be the thinnest layer?

21. The crust and uppermost mantle make up the rigid outer layer of Earth called the ____.

The diagram below shows different layers of Earth. Use it to answer questions 22-25.

![Diagram of Earth's layers]

22. What BEST describes what the arrows in Layer 2 represent?

23. Which layer has the lowest temperature?

24. Which layer is composed mostly of iron and nickel?

25. Which layer is the densest?