**Geosphere: Earth Structure Test Review**

1. What are the different layers of Earth? (4 total). Which is the hottest? Which is the thickest? Which is the thinnest?
2. What are the three major types of rocks? How are they formed?
3. Draw the rock cycle. Include SEDIMENT and MAGMA (those two will be given on test)
4. Typically, where are older rocks found on Earth? Younger rocks?
5. How does the law of supply and demand work?
6. What is a major type of gas being released from volcanoes (and coal mines) that contributes to acid rain?
7. Name the three types of plate boundaries. Describe how they work, and draw a picture for each.
8. Draw the earths’ convection currents. In your drawing, label the tectonic plates, as well as the various layers of earth that are involved.
9. What is formed when convergent plate boundaries move? What about divergent plates? (give two examples each)
10. How do volcanic eruptions happen in convergent and divergent plates?
11. Why do transform boundaries not create volcanic eruptions?
12. Draw a volcano and label the following: conduit, vent, crater, base, magma chamber, lava, pyroclastic ash.
13. What are hotspots? Where is a good example of a hotspot?
14. Yellowstone is considered to be a supervolcano, despite the fact that a volcano should not be found in Wyoming. Explain how this is possible, using appropriate vocabulary in your answer.
15. Of the two major gasses released from volcanoes, which one is linked to affecting the size of eruptions? Explain how this is possible.
16. Describe the Muon technique for volcanic eruptions.
17. Why would a major volcanic eruption (like in Iceland), potentially lower global temperatures? Use appropriate vocabulary to explain.
18. In the Sulfur Cycle, name three different sources that RELEASE sulfur (include the specific form released), and name two sources of ABSORPTION (include specific form).
19. What is the difference between magma and lava?
20. What are the two major types of volcano structures, and describe the differences between them.
21. How does an active volcano differ from a dormant volcano? Why would a dormant volcano be considered more dangerous?
22. How can volcanic eruptions lower global temperatures? Give an example of when this happened.
23. Why can working or living near volcanoes be dangerous? (give two reasons).
24. How does an earthquake’s focus differ from its epicenter?
25. How many locations are needed to determine an epicenter? Why?
26. On the Richter Scale how does a 3.0 compare to a… 4.0, 5.0, 3.1, 3.5?
27. Explain ΔTsp. What does this tell us? Why is it important?
28. Draw an example of a seismogram. Explain what each wave represents.
29. Why is the Pacific Ocean shrinking, while the Atlantic and Indian Oceans are expanding?
30. Why would carbon-14 NOT be a good radioactive substance to test the age of rocks, but WOULD be good in testing the age of fossils and trees?
31. What is half-life? Explain the concept of how radioactive decay works.
32. If the half-life of Cesium-137 is 5 days, and you start with a 20 gram sample of your substance. How much remains after 30 days?
33. If, after a 10 year period, you have 6 grams of Uranium-235. How much was your original sample, given the half-life of Uranium-235 is 2 years? Also, what percentage of your sample REMAINS after this 10 year period? How much has DECAYED?