

Name: _____

Date: _____ Period: _____

Plate Tectonics

The Physical Setting: Earth Science

Worksheet: ESRT Review

Directions: Use your Earth Science Reference Tables to answer all the questions.

Plate Tectonics:

1. What is a convergent boundary?
2. What is a transform boundary?
3. What is a divergent boundary?
4. What type of plate boundary exists on the west coast of South America?
5. What type of plate boundary is associated with mid-ocean ridges?
6. What type of plate boundary exists on the west coast of North America?
7. What type of plate boundary is the San Andreas Fault?
8. What type of plate boundary is the Aleutian Trench?
9. What type of plate boundary is the Peru-Chile Trench?
10. How many hot spots are there on the Tectonics Plate map?

Earthquake P-wave and S-wave Travel Time:

1. Approximately how far will a p-wave travel in 4 minutes?
2. Approximately how far will a s-wave travel in 4 minutes?
3. How long does it take for a p-wave to travel 7000 kilometers?
4. How long does it take for a s-wave to travel 7000 kilometers?
5. If an earthquake's epicenter is 3000 km away from a seismograph station; approximately how long did the p-wave take to arrive to the seismograph station?
6. A p-wave took 3 minutes and 20 seconds to reach a seismic station; approximately how long did it take for the s-wave to reach the same station?
7. A p-wave arrives at 3:00:00 and the s-wave arrives at 3:07:20, what is the exact distance that the seismic station is away from the epicenter?
8. A p-wave arrives at 7:52:50 and the s-wave arrives at 8:00:00, what is the exact distance that the seismic station is away from the epicenter?
9. If a p-wave arrived at a seismic station at 12:10:00 and the s-wave arrived at 12:17:00, what is the time of origin of the earthquake?
10. How many seismic stations are needed to locate the epicenter of an earthquake?