

Student Worksheet for the Egg Earth Activity

Name _____

General instructions: Answer all of the questions below. Some of the questions are based on your observations during the Egg-Earth Activity. Other questions are based on the maps at the back of this worksheet. For question 8, you might need to do a little bit of research. You will probably want to start completing this worksheet during the Egg-Earth Activity in class, but you will need to complete the worksheet as homework.

1. What part of the Earth do you think the egg shell represents?
2. What part of the Earth do you think the cracks in the egg shell represent?
3. Where do you think the majority of earthquakes would occur on your egg? Why?
4. What part of the egg do you think the egg and the yolk represent?
5. No model is a perfect representation of the natural world. What parts of the Earth do you think the egg is not a good model for?
6. Based on Figure 1 below, where do most earthquakes occur? Do the maps in Figure 1 fit with what you observed when moving the shell around on your egg?

7. Based on Figure 1, where do most volcanoes occur?

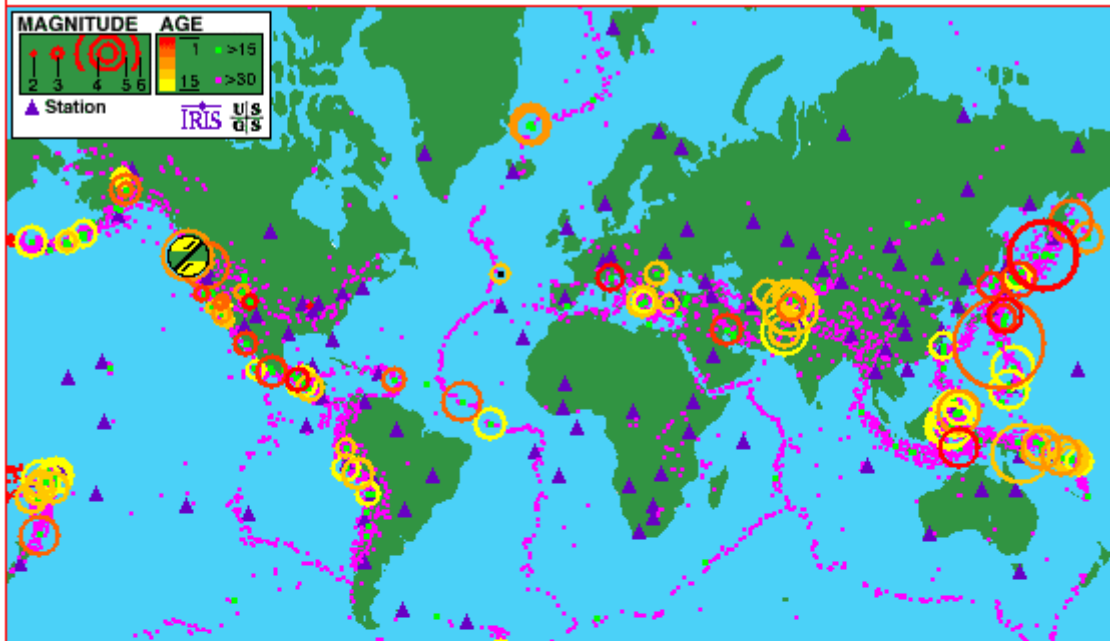
8. Mountain ranges are not shown on the maps included with this handout, so you'll have to do some investigating on your own to answer this question. Is there a relationship between where the world's major mountain ranges are and plate boundaries?

9. Based on Figure 1, what tectonic plate do we live on?

10. Based on Figure 1, what tectonic plate is Chili located on?

11. Based on Figure 2, Haiti is located on the boundary between what two plates?

Earthquakes, Active Volcanoes, and Plate Tectonics



TOP: World-wide earthquakes on July 7, 1999, and past 5 years, demonstrating how earthquakes define boundaries of tectonic plates. Data from NEIC. Chart from IRIS Consortium, USGS, U.Colorado, Reel Illusions, Inc., and U.Washington. Chart modified for web use. Purple triangles are seismic stations, green/yellow "ball" is 5.1 event of July 3, 1999. **BOTTOM:** World-wide active volcanoes (red circles), tectonic plates, and the "Ring of Fire". Chart modified from Tilling, Heliker, and Wright, 1987, and Hamilton, 1976. -- Topinka, USGS/CVO, 1999

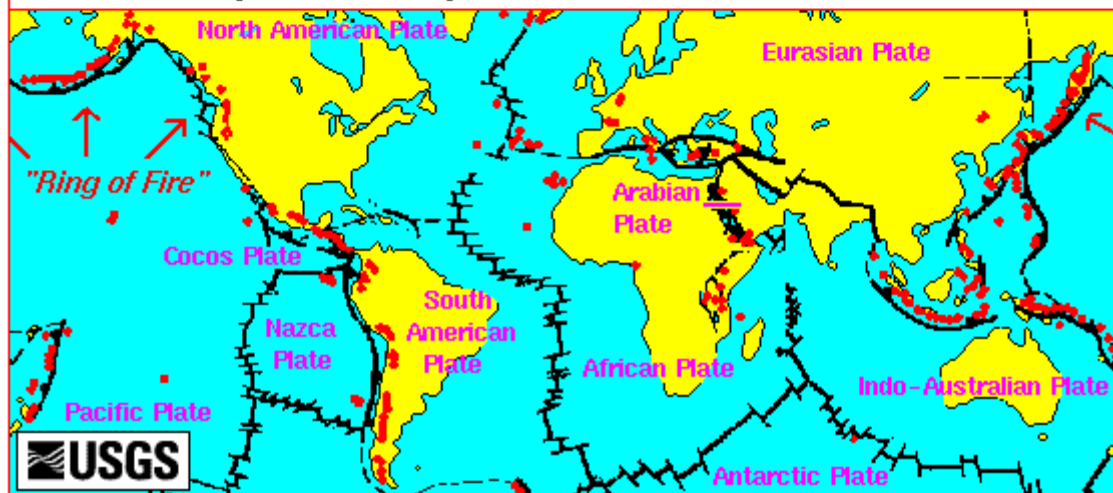


Figure 1.

http://vulcan.wr.usgs.gov/Glossary/PlateTectonics/Maps/map_quakes_volcanoes_plates.html

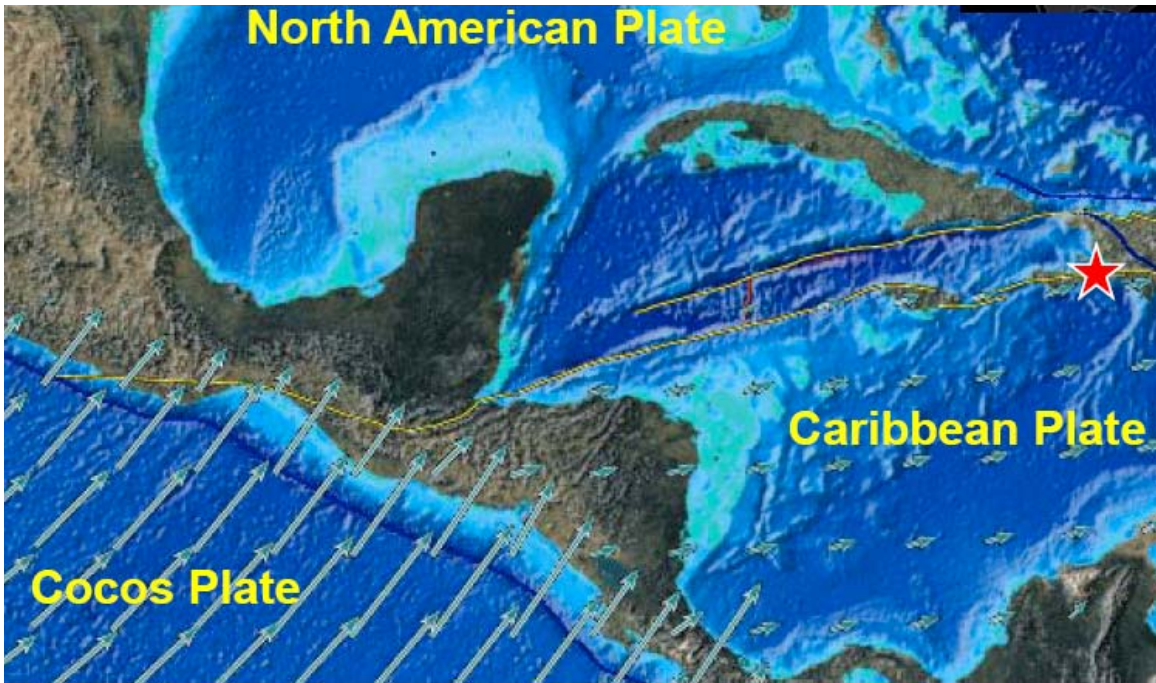


Figure 2. – from <http://www.iris.edu/hq/retn>