Plotting Earthquakes

Name:

Period:

This exercise will help you see how earthquakes help us to figure out the shape of tectonic plates.

Step 1—Get the 5 pieces of paper that you will use to make your map.

Step 2—Cut out the different pieces, leaving the "glue to panel…" flaps attached

Step 3—Line up the different pieces using the numbers at the bottom points, 1 - 5. Start with piece 1 on the left, then put piece 2 next to it on the right. Overlap the pieces along their centers, using the "glue to panel…" flaps as guides. DO NOT GLUE THE PIECES TOGETHER.

Step 4—You are going to be plotting earthquakes on your 5-piece map. For each earthquake, list its location and magnitude below. Next, draw a star on the map where the earthquake happened (at its epicenter), then color the star with a yellow colored pencil.

Step 5—Use the information from the completed map to answer the questions below.

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1. Go to http://earthquake.usgs.gov/earthquakes/ , click on Significant Earthquakes, and copy the 10 most recent earthquakes from this list below. Next, plot these earthquakes on your 5-piece map, using a yellow star for each earthquake.

magnitude	location

Lab: 14 points

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2. Each tiny black dot printed on your 5-piece map represents where earthquakes have happened. Where do most earthquakes occur… [left, right, top, bottom, center, etc.]

… in or near North America? _____

… in or near South America? _____

… in or near Europe? _____

… in or near Africa? _____

… in or near Asia? _____

… in or near Australia? _____

… in or near Antarctica? _____

3. Now look at where you plotted the most recent large earthquakes, using yellow stars.

How many of them were ON other earthquake epicenters? _____

How many of them were NEAR other earthquake epicenters? _____

How many of them were FAR from other earthquake epicenters? _____

4. How does plotting earthquakes help to determine plate boundaries?

5. Imagine that you were very afraid of earthquakes. Where could you go in the world to reduce your chances of experiencing one? Explain your answer.

6. Why are there earthquakes in the center of oceans if there is no land at that location?

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