

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## **Plate Tectonics/Earthquake & Volcano culminating Task**

**Purpose:** We will investigate if there is a relationship among earthquakes, volcanoes and tectonic plates.

**Question:** Is there a relationship between tectonic plates and the location of earthquakes and volcanoes.

**Hypothesis:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### **Procedure(s):**

**Step one** – Observe/Examine figure 11.1, which shows the Earth's continents, oceans and tectonic plate boundaries.

**Step two** – Plot the location for each volcano location from Data Table 11.1. Using a red colored pencil and draw a triangle with a "V" inside of it.

**Step Three** – Plot the location for each earthquake location from Data Table 11.2. Using a blue colored pencil and draw a square with an "E" inside of it.

### **Step Four** – Analysis Questions

- a) Describe any pattern you see in the location of the earthquakes that you plotted.
- b) Which ocean has volcanoes occurring in a ring on the continents surrounding it? What is this feature called?
- c) Oceanic ridge systems tend to occur in mid-ocean regions. In which oceans are such systems located? What do these systems say about the future of these oceans?

**Conclusion:** 1. Was your hypothesis supported? Was there a relationship among earthquakes, volcanoes, and tectonic plates? If yes, what was the relationship?

2. Predict: Based on your map, where might you expect future earthquakes to occur?

**Refer to the rubric on the back of this sheet while completing your assignment.**