

This activity is designed to prepare you for the next class period in which we will explore processes associated with divergent plate boundaries and the associated hazards. Bring this worksheet with your **typed answers** to turn in and for use in class (Due: _____).

Explore the eruption of Axial Seamount, on the Juan de Fuca Ridge by linking to the following:

1. Go to: <http://axial2013.blogspot.com/2013/08/where-is-axial-seamount.html> and answer the following:

- a. What type of plate boundary is a mid-ocean ridge like this?
- b. Using information from the video and what you already know about plate boundaries, use the “Submarine Divergent Plate Boundaries” column of Table 1 to describe the earthquake, volcano, bathymetric, and age data you would expect to characterize the plate boundary associated with Axial Seamount. What are some other characteristics about this plate boundary?

2. Go to <http://axial2013.blogspot.com/2013/08/axial-caldera.html>, developed for the 2013 expedition to Axial Seamount. Read the blog entry, watch the short video clip and consider the following:

Chadwick talks about the pressure sensors that are installed on the ocean floor to detect “inflation” and “deflation” of the Axial Seamount volcano during an eruptive event. What do you think the idea of “inflation” and “deflation” events means?

3. Read the blog entry and watch the videos about the 2011 eruption at Axial Volcano on the Juan de Fuca Ridge at: <http://axial2013.blogspot.com/2013/09/2011-lava-flows.html>

What are some of the hazards associated with this activity on the divergent plate boundary? Even if hazards are not discussed explicitly, what do *you* think the hazards are? Explain your answer.

We will complete Tables 1 and 2 during class; be sure the Submarine Divergent Plate Boundary column of Table 1 is filled in when you turn in your prework.