Earthquake/Volcano Test Review

The Earthquake/Volcano Test will cover the following material: Bell Ringers; Notes on earthquakes; Fault Model; “Can you read a quake?”; Travel-Time Graph; Locating a quake; Earthquake Prediction Model. Searching for Home Plate; Lab: Cooling Magma and Lava;

*Answer these questions to help you review for you for the Test.*

1. Diagram a fault, focus, and epicenter of an earthquake.
2. Describe the three types of earthquake waves (seismic waves).
3. Which earthquake wave arrives at seismograph stations first? Why?
4. Explain **p**- wave and **s**-wave shadow zones.

***Example questions for analyzing seismograms and s-p time travel graph (5-8).***

1. ***Refer to seismograms.*** What is the S-P interval for Sydney? Hawaii? Tokyo?
2. ***Refer to time-travel graph*.** How much farther will a P-waves travel than a S-wave in two minutes?
3. ***Refer to time-travel graph*.** What is the distance to the epicenter if the p-s interval is 4 minutes?
4. Which earthquake measuring scale(s) is quantitative (Mercalli, Richter Scale, or Moment Magnitude) and uses S-P interval and amplitude of seismic waves?
5. List the three measurements needed to figure moment magnitude and know what this scale is used for.

1. Diagram the three types of faults.
2. What type of stress and plate boundary is associated with a reverse fault? Normal fault? Strike-slip fault?
3. Compare felsic igneous rocks to mafic igneous rocks?
4. What type of rock is produced at divergent plate boundaries and in Hawaiian volcanism?
5. Explain the difference between plutonic igneous rocks and volcanic igneous rocks?
6. Which volcano type forms a non-violent eruption and created Mauna Loa in Hawaii?
7. Which volcano type forms a violent eruption and created the majority of the Cascade Range Volcano such as Mt St. Helens?
8. Which statement best describes the reason rocks have larger crystals than others?
9. What is an igneous rock?
10. What type of plate interactions created the Cascade Range volcanoes? What two plates collided?
11. Explain hot spot volcanism.

**Constructed Response (Answer needs to be in complete sentences diagrams are helpful)**.

1. Compare Hawaii and Yellowstone volcanism.

2. Explain the relationship of plate boundaries and volcanism.

**3. Explain the process of locating an epicenter?**

**4. Model how faulting can create mountains.**