**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Geology-Chapter 9**

**Plate Tectonic Simulation**

**1. Go to the following link:** [**http://www.sepuplhs.org/middle/iaes/students/simulations/SEPUP\_Plate\_simulation.swf**](http://www.sepuplhs.org/middle/iaes/students/simulations/SEPUP_Plate_simulation.swf)

**2. Divergent Boundaries**

1. **On plate 1, click the left arrow**
2. **On plate 2, click the right arrow**
3. **Click see plates over time**
4. **Select pick time, Pick 10 years, hit run**
5. **Click reset time**
6. **Repeat for 100, 1000, 1 million, 5 million, and 20 million years**
7. **Answer the following questions:**
   1. **What are divergent boundaries?**
   2. **What types of landforms can divergent boundaries create?**
   3. **How long did it take until volcanoes starting forming?**
   4. **Is lithosphere created or destroyed in divergent boundaries?**
8. **Click on the Home button**

**3. Convergent Boundaries**

1. **On plate 1 click the right arrow**
2. **On plate 2 click the left arrow**
3. **Click see plates over time**
4. **Select pick time, Pick 10 years, hit run**
5. **Click reset time**
6. **Repeat for 100, 1000, 1 million 5 million, and 20 million years**
7. **Answer the following questions:**
   1. **What are convergent boundaries?**
   2. **What types of land forms can convergent boundaries create?**
   3. **How long did it take for mountains to start forming?**
   4. **Is lithosphere created or destroyed at convergent boundaries?**
   5. **In this simulation what type of plates were colliding? (oceanic, continental)**
8. **Click on see what if two oceanic plates collide**
9. **Select pick time, pick 10 years, hit run**
10. **Repeat for 100.1000.1 million, 5 million, and 10 million years**
11. **Answer the following questions**
    1. **What types of landforms were created?**
    2. **Is lithosphere created or destroyed?**
12. **Click on home**

**4. Transform Fault Boundaries**

1. **On plate 1 click the up arrow**
2. **On plate 2 click the down arrow**
3. **Click see plates over time**
4. **Select pick time, Pick 10 years, hit run**
5. **Click reset time**
6. **Repeat for 100, 1000, 1 million 5 million, and 20 million years**
7. **Answer the following questions:**
   1. **What are transform fault boundaries?**
   2. **What types of land forms can transform fault boundaries create?**
   3. **Is lithosphere created, destroyed, or neither?**

**5. Write one question you still have about plate tectonic movement.**