

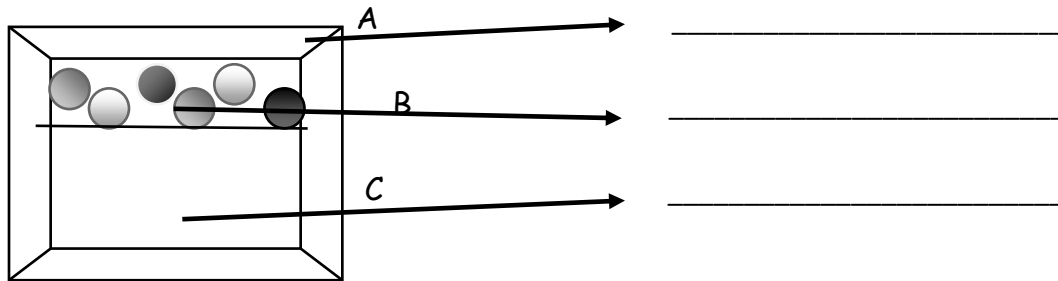
Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

# More Plate Tectonics

Directions – complete the different activities to learn more about the theory of plate tectonics.

## Activity 1 – Candy Bar Tectonics

The candy bar is a model of the layers of the Earth. Appropriately label the layers of the candy bar to correspond to the layers of the Earth using the mesosphere, lithosphere, and asthenosphere.



Carefully unwrap your candy bar and place it on top of the wrapper. Use your fingernail to make 3 small cracks in the surface of your “Earth” or candy bar.

Hold the candy bar with both hands with the top of it facing up. Slowly stretch the candy bar. Pull it apart only a couple of millimeters. **DO NOT pull the candy bar completely apart.** The chocolate should separate exposing the caramel.

1. What tectonic boundary does this represent?
2. What is one possible landform on Earth’s surface that might form here?

Slowly push the candy bar back together again. The chocolate may crumble.

3. What are 2 motions you notice with the broken pieces of chocolate?
4. What tectonic boundary does this represent?
5. What is one possible landform on Earth’s surface that might form here?

Gently push the right hand piece of candy away from you while pulling the left hand piece toward you. The sides may stick together so you may have to increase the force of your push.

6. What are 2 things you observed?
7. What tectonic boundary does this represent?

## Activity 2 – Mapping Different Phenomenon

Directions - Plot the locations of earthquakes and volcanoes

Place a **green "X"** on the map to represent the earthquakes. Place a **red "Δ"** to represent the volcanoes. Check it off as you go!

x	Earthquakes		Δ	Volcanoes	
	Longitude	Latitude		Longitude	Latitude
	120° W	40° N		150° W	60° N
	110° E	5° S		70° W	35° S
	77° W	4° S		120° W	45° N
	88° E	23° N		61° W	15° N
	121° E	14° S		105° W	20° N
	34° E	7° N		75° W	0°
	74° W	44° N		122° W	40° N
	70° W	30° S		30° E	40° N
	10° E	45° N		60° E	30° N
	85° W	13° N		160° E	55° N
	125° E	23° N		37° E	3° S
	30° E	35° N		145° E	40° N
	140° E	35° N		120° E	10° S
	12° E	46° N		14° E	41° N

### Analysis Questions

1. Are the earthquakes and volcanoes randomly scattered over your map, or were they grouped together in certain locations?
2. Which locations on the map had the most earthquakes and volcanoes?
3. Why do you think there were more earthquakes and volcanoes in these areas?

