

## GRAHAM CRACKER PLATE TECTONICS

Name \_\_\_\_\_

**Remember! Background Information:** Plate boundaries are found at the edge of the plates. There are three types.

*Convergent* – Places where plates crash or push together; mountains, earthquakes, and volcanoes form where plates collide.

*Divergent* – Places where plates are moving apart, forming rift valleys.

*Transform* – Places where plates slide past each other; the sliding motion causes earthquakes

**Materials:** 1/2 of a graham cracker, frosting, plastic knife, 1 square of Wax paper.

### Procedure:

**(Note:** The graham crackers represent the Earth's crust, which is broken up into plates. The frosting represents the mantle.)

1. Spread frosting on wax paper to cover an area a bit larger than the graham cracker square.
2. Break the graham cracker on its seam to make 2 rectangles and place the 2 rectangles, touching, on top of the frosting.
3. Move the plates (crackers) apart to expose some of the mantle (frosting). This is called a spreading zone. When plates move apart, it creates cracks in the Earth called rift valley. Pulling apart of the plates allows hot, melted rock to come up through the crack in the earth. This is how a volcano's opening is formed.
4. Push the plates together until the middle forms a ridge. When plates collide they create mountains. This is called a collision zone.
5. Slide the edges of the crackers against each other. The horizontal grinding and sliding of the plates causes earthquakes. This is called a shearing fault. A fault is a fracture in the earth's crust.