Name_____

GRAHAM CRACKER PLATE TECTONICS

Purpose: 1) Identify forces that shape features of the Earth
2) Predict land features resulting from gradual changes
3) Represent the natural world using models and identify their limitations

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. When oceanic plates collide with continental plates, the less dense oceanic moves under the continental plate in a process called subduction. When two continental plates collide, mountains form.
Divergent – Places where plates are moving apart, forming rift valleys.
Transform – Places where plates slide past each other; the sliding motion causes earthquakes

Materials:

Graham cracker	Cake Frosting	Styrofoam Paper plate
Water	Plastic knife	

Procedure & Questions:

1. Spread a thick layer of frosting on the paper plate.
2. Break your cracker into 4 sections.
3. Wet the end of one section with water.
4. Gently put the wet cracker section and a dry cracker section on the layer of frosting.
5. Push the wet cracker and a dry cracker together. Record your observations in a diagram.

   What tectonic process(s) does this model?

   _____

   What is a limitation of this model?

   _____

   Draw and label a diagram of this process:

6. Place two dry crackers side by side on the frosting. Slide them past each other. Record your observations in a diagram.
   What tectonic process(s) does this model?

   _____

   What is a limitation of this model?

   _____

   Draw and label a diagram of this process:

7. If the crackers stick together before they move, what process would be modeled?

   _____

   What is a limitation of this model?

   _____

   Draw and label a diagram of this process:

8. Place a dry cracker end to end with another dry cracker on the frosting. Push them together. Record your observations in a diagram.
   What tectonic process(s) does this model?

   _____

   What is a limitation of this model?

   _____

   Draw and label a diagram of this process:

9. Take two pieces of dry crackers and place them side by side on the frosting. Push the crackers down and out at the same time. Record your observations in a diagram.

   What tectonic process(s) does this model?

   _____

   What is a limitation of this model?

   _____

   Draw and label a diagram of this process:

10. Take two pieces of dry crackers and place them side by side on the frosting. Push the crackers together. Record your observations in a diagram.

    What tectonic process(s) does this model?

    _____

    What is a limitation of this model?

    _____

    Draw and label a diagram of this process: