Exploring the Movement of Tectonic Plates with S'Mores

Grade Level: 2nd to 3rd **Type:** Earth Science

Objective:

In this experiment you will explore how tectonic plates move to create land and expand bodies of water.

Research Questions:

- Tectonic plates move every second, so why is the movement so rarely felt by anyone?
- Is there a connection between new land forming in some places and water expanding in others?
- Do you think this experiment correctly portrays the movement of tectonic plates?

Materials:

- One plate
- Marshmallow spread
- Two graham crackers

Experimental Procedure:

1. Slather a considerable amount of marshmallow spread onto a plate.
2. Place the graham crackers on opposite sides of the plate.
3. Every ten seconds, push the graham crackers closer to each other. Observe what is happening to the marshmallow spread.
4. Once the graham crackers have touched each other, note how the marshmallow spreading is a different shape than it was at the start of the experiment.
5. Clean up the mess by eating it!

Terms/Concepts: tectonic plates, moving oceans, continental drift

References:

- What is a Tectonic Plate?: http://pubs.usgs.gov/gip/dynamic/tectonic.html
- When Continents Collide: http://geocraft.com/WVFossils/collision.html