

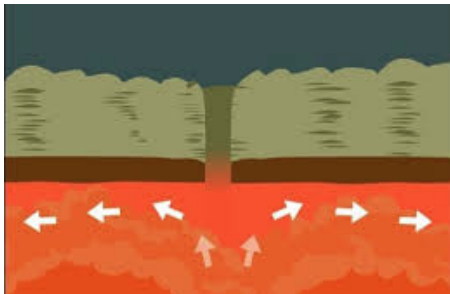


PLATE TECTONICS

Learn about plate tectonics and how mountains, volcanoes, and islands are formed.

Materials

Plate
Graham crackers
Rice cake
Small dish of water
Peanut butter or frosting



Procedure

- Cover the plate in a layer of peanut butter.
- Lay 2 graham crackers side by side on top of the peanut butter. These are oceanic plates.
- Push the graham crackers in opposite directions, rubbing their sides against each other. What happens? Can you feel vibrations from them?
- Gently push the graham crackers down and pull them apart. Does the peanut butter fill the void between them?
- Cut the rice cake in half and lay it on the peanut butter. This is a continental plate. Push the straight edge of the rice cake and one of the graham crackers towards each other. Does one slip under the other?
- Wet the ends of the two graham crackers and push the wet ends together on the peanut butter. What feature forms?

Results

The graham crackers and rice cake had various effects on each other when they were pushed together.

Why?

The earth's plates are part of the earth's crust, with other rock and magma beneath them. Oceanic plates are thin and dense, while continental plates are thicker and less dense. When the plates move, they rub against one another, creating tremors that cause earthquakes. When they press up against each other, one plate can slip under the other and can create volcanoes or they can push up rock where they meet, creating mountains. When they meet underwater and magma escapes, volcanoes form and the cooling rock creates islands on the surface.

To learn more about Earth science, check out the Pink Palace Museum's *Earthquakes* suitcase program.