

Project FOCUS
Best Lessons
FIFTH GRADE

Title of Lesson: Plate Tectonics

Theme: Earth/Space Science

Unit Number: X Unit Title: Earth's Surface Features

Performance Standard(s) Covered (enter code):

S5E1B: Students will identify surface features of the Earth caused by constructive and destructive processes.

S5CS1: Students ask questions and write observations.

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

Earthquakes, Plate Tectonics, Mantle, Crust, Volcanoes, Mountains, Fault

Learning Activity (description in steps)

Abstract (limit 100 characters): Use frosting and graham crackers to simulate an Earthquake occurring. Spread frosting (mantle) on the plate about as thick as the graham cracker. Then, break the graham cracker along its edge, like a fault line, and place the pieces next to each other on the frosting. Have the students move one piece of graham cracker away from them, and another toward them. This difficult move resembles an earthquake, when two plates slide against each other. Then, have them keep doing this for a while and frosting will ooze out between the two graham crackers. Ask them what they think this resembles, such as volcanoes and other landforms being created. Then, have them enjoy their snack!

Details: Explain background information such as how the Earth used to have one large landform. Explain about different landforms that can be created from plate tectonics moving. Mountains and volcanoes can be created when plates move.

Materials Needed (type and quantity): graham crackers, plates, frosting, and spoons (or popsicle sticks)

Notes and Tips (general changes, alternative methods, cautions): Place the frosting onto their plate so that they do not get too much or too little. I also drew in the size on the plate so that they did not spread frosting all over plate. They only spread it within the square I drew for them. Also, make sure the frosting is smooth and flat before placing the graham crackers on top.

Sources/References:

1) <http://voices.yahoo.com/make-earthquakes-volcanoes-graham-crackers-7313466.html?cat=4>