

SfS Away from the Classroom!

ES02: Introduction to Tectonics (Recommended for Grades 3-5)

Please use the following resources to learn about tectonics

Watch this Video: https://www.youtube.com/watch?v=RA2-Vc4PIOY

Answer these questions:

- What evidence is given for the supercontinent Pangea?
- What are the three types of plate boundaries? How does each one move?
- How are the Himalayan mountains formed?
- Is there anything in your town that shows evidence of plate tectonics? (Mountains, earthquakes, etc.)

Activities: Follow these directions to make a model of the earth's crust and mantle.

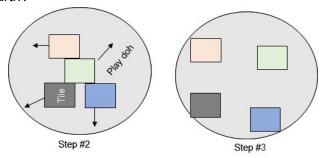
You will need:

• Play doh, silly putty, slime, or soft clay

 4 small tiles or small items (lego, board game pieces, pen cap, paper clip, etc)

Part 1: Modeling continental drift

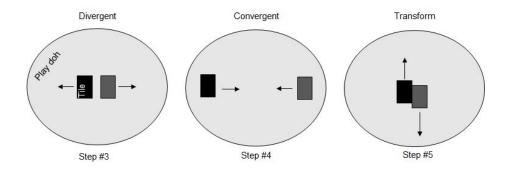
- 1. Make play doh into a ball.
- 2. Place your 4 small tiles on top of the ball of play doh, close together.
- 3. Move the tiles around on the ball of play doh seeing how far apart the tiles can get
- 4. Which model (step #2 or step #3) is a good representation of Pangea and which model is a good representation of today's earth?



Part 2: Modeling plate boundaries

- 1. Squish play doh flat on the table
- 2. Push 2 of the tiles into the play doh
- 3. Slowly move the tiles away from each other. Which plate boundary does this model (divergent, convergent, or transform)? What happens to the play doh below?
- 4. Slowly move the tiles together. Does one tile move on top of the other? Which plate boundary does this represent?
- 5. Slowly move the tiles sideways past each other. What happens to the play doh below? Which plate boundary does this represent?





Make observations & use Claims, Evidence, and Reasoning!

- 1. Claim: The earth continents have not always looked the way they do today
 - Evidence:
 - Reasoning:
- 2. Claim: Mountains are formed by plate tectonics
 - Evidence:
 - Reasoning:

