

Interactive Notes- Plate Tectonics

Materials per group of 4 students:

Demo 1	1-hard-boiled egg 1-plastic knife 1-paper plate 1-ruler 4-note sheets
Demo 2	1-large beaker, $\frac{2}{3}$ full of water 1-candle (teachers- you'll put deliver a small pool of food coloring to the bottom of each beaker using a dropper)
Demo 3	1-half of an index card 1-pair scissors 1-black marker
Demo 4	(nothing new)

Teachers- Have your own set of materials to demonstrate how to do these.

Procedure:

Demo 1- Ask student #1 to tap their hard-boiled egg on the table, with the paper plate below to control the mess. Observe the cracks that form. Now have student #1 cut the egg open with the plastic knife to see the inside. Compare with Earth's interior. After copying the notes, go through the slide that compares the thicknesses of a shell with the crust of Earth.

Demo 2- After you put a small pool of food coloring at the bottom of the beakers, have student #2 hold it just above the lit candle for 2 minutes and observe closely what happens.

Demo 3- Click through the 4-picture sequence to show student #3 what to do with the note card. They'll draw a few lines with pencil to represent plate boundaries, then a black line with marker (this represents a coal deposit). Have them cut the pieces apart along the plate boundaries (pencil lines) and separate their "super-continent" into pieces.

Demo 4- Ask student #4 to drop 2 of the smallest pieces of index card into the center of the beaker while it's over the lit candle. Watch as they either drift off in the same direction, or drift in different directions.

Spend the last few minutes having students clean up and get materials ready for the next class.

Caution: Locate all fire safety equipment and be familiar with their operating procedure BEFORE lighting candles; keep the lighter in your pocket the whole time and blow them out as soon as possible (after demo #4); warn students to keep clothing, hair, hands, and any other flammables away from the flame; comply with the fire codes in your building.

Click [here](#) for more about Interactive Notes, like getting ready, presenting, and materials management.