

## Additional Teaching Materials

Links to resources that complement [Animation of the Month—Plate Boundaries](#)

### Plate Tectonic PowerPoint Presentation

**Type**—PowerPoint slide show with copious notes in “Normal” view to aid in understanding the slides

**Level**—Basic to intermediate. Can modify for personal use.

**Materials**—Download file and need link to the Internet

**Objectives**—introducing fundamental concepts and observations of Plate Tectonics and Earthquakes.  
May be used either as learning aids for Earth Science teachers or edited for classroom use.

### Snack Tectonics

**Type**—Hands-on activity

**Level**—Basic

**Materials**—Graham crackers, fruit roll-up, water, frosting, wax paper, plastic knife, overheads

**Objectives**—Explore how the tectonic plates (lithosphere) ride atop the asthenosphere; and explore how plates interact at their boundaries.

### Plate Tectonics—Divergent, Convergent, Transform Boundaries

**Type**—Two Activities, One Lab

**Level**—Basic

**Materials**—Worksheet, rulers, sand, clay, wax paper, box,

**Objectives**—Distinguish the different layers of the Earth;  
observe the effects caused by plate movements; and  
explore the reasons for earthquakes and volcanoes.

### World Tectonic Mapping Activity

**Type**—Activity

**Level**—Basic

**Materials**—Maps (links to poster and smaller maps in linked PDF), Washable markers

**Objectives**—Learn where volcanoes and earthquakes occur;  
develop geography knowledge; and  
use critical thinking to find plate boundaries.

### Teaching about Plate Tectonics and Faulting Using Foam Models—Detailed activity

or... [Modified version of activity](#) with [Student Worksheet #1](#) and [Student Worksheet #2](#)

**Type**—Demonstration

**Level**—Basic to intermediate

**Materials**—Foam, pens, folders, rubber cement, pins, poster board, knife, ruler

**Objectives**—Demonstrate plate boundary interactions, geometry and relative motions of faulting.

### Real Evidence of a Subducting Plate

**Type**—90 minute activity

**Level**—Intermediate

**Materials**—Box, Styrofoam balls, rulers, scissors, etc. (see activity)

**Objectives**—Interpret real data to determine subduction; and  
use latitude and longitude.

### Flash Animation Rollover of Plate Tectonics, Volcanoes, & Earthquakes

**Type**—Flash rollover

**Level**—Basic

**Materials**—[Download FLASH free](#)

**Objectives**—Observe alignment of volcanoes and earthquakes with plate boundaries.

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### Plotting Earthquake Epicenters with an Accompanying PowerPoint Presentation

**Type**—Long-term activity

**Level**—Intermediate

**Materials**—Maps, Internet connection, colored dots, colored pencils

**Objectives**—Discover unique patterns of earthquakes around the world;  
identify locations of deep earthquakes and associated geologic features;  
identify locations of large earthquakes and associated geologic features;  
develop skills in plotting latitude and longitude points, including interpolation; and  
develop basic world geography knowledge.

### A Model of Sea-Floor Spreading

**Type**—Hands-on activity

**Level**—Intermediate

**Materials**—Maps, scissors, ruler, tape, colored pencils

(Extra: Download [Animation of Sea-floor Spreading](#))

**Objectives**—Make a paper model illustrating the concept of sea-floor spreading; and  
develop symmetrical magnetic “stripes” on either side of a mid- ocean spreading center.

### Plate Puzzle

**Type**—Activity

**Level**—Intermediate

**Materials**—Map, Scissors

**Objectives**—Explore plate motions and the interactions of the plates along the plate boundaries.

### The Distance between Us and Them—Sea Floor Spreading in the Atlantic Ocean

**Type**—Activity

**Level**—Advanced

**Materials**—Ruler, Calculator, Copies of map, worksheets (provided in activity)

**Objectives**—Understand how to determine rates of sea floor spreading.

### Discovering Plate Boundaries

**Type**—3 hour activity

**Level**—All levels

**Materials**—Maps, overheads, pencils, overhead markers

**Objectives**—Discover the processes that occur at plate tectonic boundaries.