

Science Story Adventures



Earthquake

Learning outcomes

- » Students know an object's motion can be described by recording the change in position of the object over time. (Grade 2 – Physical Sciences)
- » Students know energy can be carried from one place to another by waves, such as water waves and sound waves, by electric current, and by moving objects. (Grade 3 – Physical Sciences).
- » Students know some changes in the earth are due to slow processes, such as erosion, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes. (Grade 4 – Earth Sciences).

From: *California's Science Content Standards*

Books we read

We Shake in a Quake by Hannah Gelman Givon
Hope for Haiti by Jesse Joshua Watson

Activities we did

- » We looked at a hard-boiled egg and compared it to the layers of Earth.
- » We talked about how the earth is covered by plates that are constantly moving. Their movement is what causes earthquakes. We put together a large plate tectonic map to look at the different plates and how they are moving. (From SCEC Plate Tectonics PuzzleMap www.scec.org/education/platetectonics/)
- » We talked about things you can do to prepare for an earthquake and how to be safe during one.

Today's craft: Plate Tectonics Puzzle



You will need:

- » Plate tectonics map (included)
- » Plate tectonics puzzle (included)
- » Cardstock
- » Colored pencils
- » Scissors
- » 6 1/2 x 9 1/2 in envelope

Directions:

1. Print out the plate tectonics map and puzzle on cardstock.
2. Color in both the map and puzzle, using the same color for each plate on both.
3. Cut out the pieces of the plate tectonics puzzle. Only cut along the thick black lines. Keep the plate tectonics map as a reference to help you put together the puzzle.

Adapted from Tremor Troop: Earthquakes www.fema.gov/pdf/library/tremortroop.pdf

Want to find out more?

Here is a selection of further resources to explore in the Naturalist Center, in the public library or at home. Please ask if you can't find what you're looking for.

Books

Earthquake by Milly Lee.

Early in the morning in 1906, the earth shook and threw a young Chinese American girl and her family from their beds. With simple text and full-page, dramatic illustrations readers learn about how one family left Chinatown to join other refugees in Golden Gate Park on this fateful day.

Earthquakes by Seymour Simon. Nat. Ctr. Juv. QE521.3 .S54 2006

Readers are always happy to see more from Simon. In this book, he presents astounding pictures of structural devastation from earthquakes around the world and discusses how scientists and engineers work to make things sounder.

Francis the Earthquake Dog by Judith Ross Enderle and Stephanie Gordon Tessler.

Based on a true story about a dog found in the damaged St. Francis Hotel after the 1906 San Francisco earthquake, this book gently introduces children to this historic event.

Plate Tectonics: Earth's Moving Crust by Darlene R. Stille. Nat. Ctr. Juv. QE511.4 .S74 2007

Provides an introduction to the movement of Earth's crust and how scientists study it.

Shake, Rattle, and Roll: The World's Most Amazing Volcanoes, Earthquakes, and Other Forces by Spencer Christian and Antonia Felix. Naturalist Center Juv. QE521.3 .C47 1997

A great resource which comprehensively explains geologic forces using simple language and cartoon-style illustrations.

DVDs

Bill Nye, the Science Guy: Earthquakes.

Join the Science Guy as he explores how the large plates that cover the Earth move and create earthquakes, while visiting with scientists who study this.

Websites

Earthquakes for Kids

Learn about historical earthquakes, current seismic activity and the science for predicting future events on this site created by the U.S. Geological Survey. Includes links to animations, puzzles, games and science fair project ideas. <http://earthquake.usgs.gov/learn/kids/>

Kid's Hazards Quiz

Are you prepared for an earthquake? Find out how to prepare for this and other natural disasters by taking these quizzes created by NOAA. <http://www.ngdc.noaa.gov/hazard/kqStart.shtml>

Tremor Troop: Earthquakes—A Teacher's Package for K-6. Revised Edition.

Developed through a partnership between FEMA and NSTA this curriculum provides a series of hands-on activities related to the science of earthquakes and earthquake safety. The lessons are multi-disciplinary and aligned with the national science standards.

<http://www.fema.gov/library/viewRecord.do?id=1632>

Plate Tectonics Map

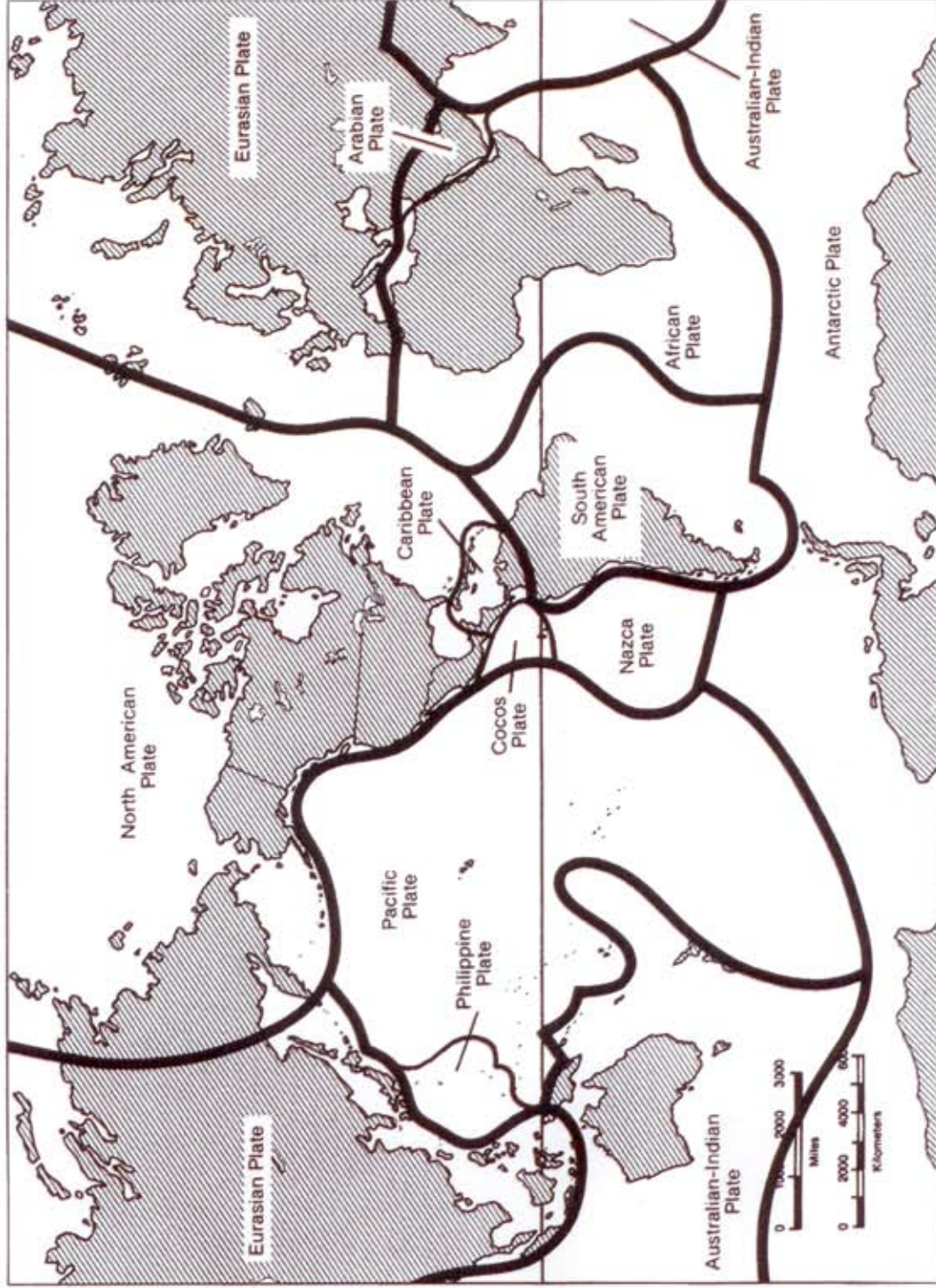


Plate Tectonics Puzzle

