

CONNECTIONS TO SCIENCE GUIDES

GEORGIA YOUTH SCIENCE & TECHNOLOGY CENTERS, INC.

EARTHQUAKES

BY: SEYMOUR SIMON

CAN'T FIND THE BOOK?
READ-ALOUDS ARE AVAILABLE
ON YOUTUBE.



ASK

- What is a lithospheric plate?
- What is an earthquake?
- What causes an earthquake?
- Have you ever thought about being a seismologist?

EXPLORE

EDIBLE PLATE TECTONICS

Materials:

- Graham crackers
- Peanut butter or peanut butter substitute
- Wax paper

Directions:

- Begin by cutting a piece of wax paper about 10 inches long.
- Spread a 1/2-inch layer of peanut butter or peanut butter substitute in the middle of your wax paper. This represents the magma or molten rock.
- Place two graham crackers on top of the magma side by side. These represent the lithospheric plates.
- To model a divergent boundary, start with the plates together, then slowly move them apart. Observe.
- To model a transform boundary, start with the plates together, then push one plate away from you and one toward you. Observe.
- To model a convergent boundary, start with the plates together, then slowly push them into each other. Observe.
- As you are experimenting, think about:
 - How are the movements of lithospheric plates linked to major geologic events?

Fun Facts:

- In 2023, Georgia had 47 earthquakes.
- The Appalachian Mountains were formed at a convergent plate boundary when two plates collided 500 to 300 million years ago.



EXPLAIN

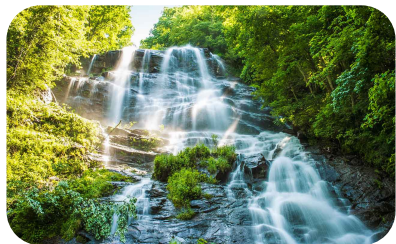
MOVEMENT OF LITHOSPHERIC PLATES

The Earth's outermost layer, the lithosphere, is broken into pieces called tectonic plates. These plates float on a molten material and can move freely. The movement of the plates creates three different types of boundaries: convergent (plates move into each other), divergent (plates move away from each other), and transform (plates slide against each other). The movement at the boundaries is responsible for lots of different geological formations around the world.



EXTEND

AMICALOLA FALLS STATE PARK



Amicalola Falls State Park is located in Dawsonville, Georgia. Known for its 729-foot waterfall, it is also the location of Springer Mountain - the start of the Appalachian Trail.

STEM CAREER

SEISMOLOGIST

A seismologist is a scientist who studies earthquakes and seismic waves. At work, seismologists can research the internal structure of the Earth, observe and analyze data from previous earthquakes, and use their expertise to help detect nuclear explosions. If you are interested in the movement of the Earth, being a seismologist might be for you!



GYSTC



GEORGIA YOUTH SCIENCE & TECHNOLOGY CENTERS

BACKGROUND

The Georgia Youth Science and Technology Centers, Inc. provides quality programs for teachers of STEM subjects that improve the teaching and learning process at the kindergarten through eighth grade levels. We present programs that change students' perceptions and inspire an appreciation for science, technology, engineering, and mathematics subjects.

ABOUT US

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