SCIENCE, TECHNOLOGY, ENGINEERING & MATH



SEISMOLOGY (6-8)

KEY CONCEPTS:



Geologists are scientists who study how the earth is made and how nature affects it.

> The earth's surface is made up of huge blocks of rock called **tectonic plates.** Cracks in these plates are **fault lines.**

- > When the plates move, it results in **earthquakes**.
- Seismology is the study of earthquakes.
- > Earthquakes are measured on the **Richter Scale**.

LITERACY CONNECTION:



Check out <u>Earthquake Terror</u> by Peg Kehret for an exciting story of a camping trip that changes when natural disaster hits! Not sure if it's the book for you? Go online for <u>audio sections</u> of the book to get a first impression.

ACTIVITY: BUILD & TEST a SEISMOGRAPH

Materials: cardboard box, tape, scissors, cup, string, marker, paper, small weights, and a partner

- 1. With the open side facing you, punch two holes in the top of the box.
- 2. Cut an 8-inch horizontal slot in the back *or* 2 slits near the bottom (shown).
- 3. Punch 2 holes on opposite sides of the cup, and 1 hole in the bottom.
- 4. Tie a piece of string to each hole in the sides of the cup, and tie or tape the strings through the top of the box.
- **TIP**: The bottom of the cup should be about an inch above the bottom of the box.
- 5. Push the marker through the hole until it touches the box and fill the cup with weights (coins, marbles, etc.).
- 6. Slide the paper through the hole(s) in the box, with the marker touching it in the center.
- 7. Shake the box while your partner pulls the strip of paper through slowly. The marker will leave behind a seismographic reading.

EXPLORE: Check out this <u>movable model</u> that shows how the earth's crust moves to make mountains and trigger volcanoes. Try shaking your seismograph in different ways and record how that changes the reading.

For step-by-step instructions, watch the video at: Seismograph STEM Activity

This at-home educational activity is from the Literacy Coalition of Palm Beach County's literacy-based Stories & STEM program. Stories & STEM is made possible with support from Prime Time Palm Beach County, Inc., which receives significant funding from the Children's Services Council of Palm Beach County, Inc.

Having fun? Send pictures or video links of you and your Stories & STEM projects to csharkey@literacypbc.org

