

Earthquakes

While earthquakes can be scary, the science behind them isn't! An earthquake is the quick shaking of the planet's surface. They usually happen when tectonic plates, large slabs of rock in Earth's outer rocky shell, move against each other. The released energy spreads outward in seismic waves, shaking the ground. Earthquakes are more common in some places than others, but they usually don't last long. In fact, most are small enough that people don't even feel them. Did you also know...

- ✓ Earthquakes often take place in a zone called the Ring of Fire, where several plate boundaries are located. It stretches around the edge of the Pacific Ocean from New Zealand to Chile.
- ✓ The Richter scale is a measure of the magnitude, or size, of an earthquake. Each magnitude is 10 times larger than the previous one, so a 7.0 is 100 times more powerful than a 5.0.
- ✓ Larger earthquakes can cause tsunamis, landslides, floods, and even volcanic eruptions.

Earthquake Experiment

Supplies: a tray of gelatin or brownies, gumdrops, and toothpicks (Note: For a nonedible version, use modeling clay as a substitute.)

Instructions:

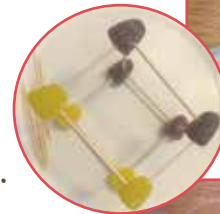
Step 1: Fill a tray with your foundation (gelatin, brownies, etc.).

Step 2: Build towers on top with gumdies and toothpicks.

Step 3: Shake the tray and see how long it takes for the structures to fall.

Bonus challenge:

Try using a different foundation. How does that affect the strength of your towers?



Did you know?

The most powerful recorded earthquake happened in Chile in 1960. This earthquake had a magnitude of 9.5 and lasted for 10 minutes. That's a lot of shaking!

