

Earthquakes

The Earth's Crust

The Earth has four layers. The three inner layers are called the mantle, inner core, and outer core. The outer layer is called the crust. It is very thin compared to the inner layers of the Earth. All land is part of the crust. The crust is not one solid piece. It is many pieces called plates that fit together like a puzzle. The edges of these plates are called faults. The plates are always moving, but they move very slowly so we can't feel the movement. Most of the time, they move together smoothly. Sometimes, the edges of the plates get stuck against each other. When they finally break free, the shift quickly releases a lot of energy. The energy spreads out through the plates resulting in an earthquake.

When the Earth Moves

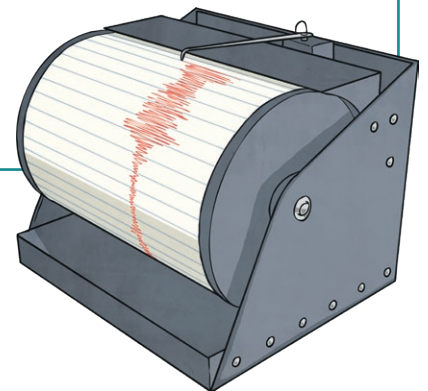
Earthquakes happen all the time! Millions of earthquakes happen each year. Most of them are so small or so far below the surface of the Earth that we don't even notice them. Once in a while, they are so strong they can be felt for miles. Strong earthquakes can cause a lot of different problems like floods or landslides. No one can predict when an earthquake will occur, but scientists are always testing new ideas and learning more about them.

Earthquake Safety

You can work with your family to create an earthquake plan. You can secure your home by bolting heavy items to the walls or floor. If you experience an earthquake, you should drop to the ground, take cover, and hold on when the Earth moves. Finally, build a safety kit with your family. Your safety kit should include plenty of water, flashlights, and emergency whistles.

Interesting Facts

- Scientists measure earthquakes in "magnitude." Magnitude means the amount of energy released by the quake.
- A seismograph is a piece of equipment that records the size of earthquakes.
- Florida and North Dakota have the fewest number of earthquakes in the United States.
- Some people believe animals can sense when an earthquake is coming. Many reports show animals leave their homes and flee just before an earthquake.



Questions

1. Which states have the least number of earthquakes?

- California and Oregon
- Florida and California
- Florida and North Dakota
- North Dakota and Texas

2. How many layers does the Earth have?

- one
- two
- three
- four

3. In which layer do earthquakes occur?

- crust
- mantle
- inner core
- outer core

4. About how many earthquakes occur each year?

- hundreds
- thousands
- millions
- billions

5. What tool do scientists use to measure earthquakes?

6. How could animals sensing an earthquake help people?

Answers

1. Which states have the least number of earthquakes?

- California and Oregon
- Florida and California
- Florida and North Dakota**
- North Dakota and Texas

2. How many layers does the Earth have?

- one
- two
- three
- four**

3. In which layer do earthquakes occur?

- crust**
- mantle
- inner core
- outer core

4. About how many earthquakes occur each year?

- hundreds
- thousands
- millions
- billions**

5. What tool do scientists use to measure earthquakes?

Scientists use seismographs to measure earthquakes.

6. How could animals sensing an earthquake help people?

Answers will vary. A possible answer is: Animals sensing an earthquake beforehand can help humans get to a safe spot before the earthquake begins.