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Did You Know?

Earthquakes can destroy entire cities. They also cause tsunamis and fires, which destroy as much, and sometimes more, as the earthquake itself.

Key Terms

Pacific Ring of Fire—a band around the Pacific Ocean where two tectonic plates (part of the Earth's crust) meet

Richter Scale—a scale used to measure the strength of earthquakes

shock waves—energy that travels underground, but causes earthquakes at the surface

tsunami—huge waves created by an earthquake or volcano underwater

CHAPTER 1 | Introduction

You hear a rumbling louder than thunder. The ground begins to shake. It's an earthquake!

Earthquakes can be deadly. Many last a minute or less. But in those few seconds entire cities can crumble. Buildings and bridges collapse. People are crushed or buried alive.

Millions have died in earthquakes. Even after an earthquake stops, the damage may continue. Fires break out. These fires can destroy even more than the earthquake itself.

Some earthquakes happen underwater. These can cause big ocean waves called tsunamis.

Tsunamis are huge walls of water. They crash down on land with tremendous force. Tsunamis caused by earthquakes kill many thousands of people all over the world.

Tsunami are giant waves that hit the shore. Some are as tall as a ten-story building. Tsunami are not very big when they are out at sea. But, out in the ocean, they travel faster than a speeding bullet.

Near land, they suck up all the water near the shore. Then they crash down. They can smash and wash away buildings. People are crushed and swept out to sea.

Why Do Earthquakes Happen?

The top layer of our planet is called the crust. It seems solid to us. In fact it's broken into giant pieces. These pieces are called tectonic plates.

Plates are always moving. They move very slowly. Sometimes plates slide past each other. Sometimes they push against each other. In some places, plates pull away from each other.