

Earthquakes

By Sharon Fabian

¹ Everybody knows about earthquakes. Suppose you feel the ground or a building shake. You might think "earthquake?" even if you don't live anywhere near an earthquake zone. Or suppose you are watching a science fiction movie, and a huge fiery crack opens in the earth, and tall buildings come crashing down. "Earthquake!!"

² However there is more to earthquakes than this, and the more you know about the science of earthquakes, the more interesting it gets! For one thing, earthquakes can happen either on land or under the ocean. Earthquakes on land cause most of their damage when they occur in heavily populated areas, especially when they start fires. Earthquakes under the sea sometimes cause huge waves that are extremely powerful and dangerous when they hit land.

³ One famous earthquake was the Great San Francisco earthquake of 1906. As the earthquake hit San Francisco, it overturned stoves and gas lamps, which started fires all over the city. To make the problem worse, the earthquake also broke the main water lines, making it difficult for firemen to put out the fires. For three days the fires burned, damaging much of San Francisco.

⁴ Another spectacular, but dangerous, event caused by earthquakes is a tsunami. Tsunami is a Japanese word meaning "harbor wave." These giant ocean waves are often caused by an earthquake under the ocean, and can travel at speeds of 500 miles per hour or more. In the past, tsunamis have wiped out whole villages in island countries, and they remain a threat to people who live on the coast or on an island.

⁵ Earthquakes usually occur along fault lines, or lines where tectonic plates meet. Tectonic plates are the huge rocky plates that make up the surface of the earth. If you look at a map that shows where earthquakes have happened, you will see a ring of earthquake activity all around the edges of the Pacific Ocean. It is called the Ring of Fire. Many earthquakes also happen along the mid-ocean ridge, the underwater mountain range in the middle of the Atlantic Ocean.

⁶ Scientists measure earthquakes using a tool called a seismograph. A seismograph measures the vibrations of the earth caused by an earthquake. Earthquake measurements are recorded on a scale called the Richter Scale. The smallest earthquake that you could feel would measure about a 2 on the Richter Scale. Major earthquakes measure around a 6, and the really monumental ones measure 8 or more.

⁷ One reason scientists study earthquakes is to try to protect people from future earthquakes. So far, scientists have not learned how to predict exactly when the next one will come, but they can estimate about when one is due. To make their estimations they study the history of earthquakes in the area, and they also study the rocks themselves for clues. We are learning more all the time, but for now, earthquakes are still one of nature's mysterious forces.

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<p>1. Scientists measure earthquakes using a</p> <p><input type="radio"/> A Beaker</p> <p><input type="radio"/> B Seismograph</p> <p><input type="radio"/> C Telescope</p> <p><input type="radio"/> D Barometer</p>	<p>2. The San Francisco earthquake caused a fire that lasted for</p> <p><input type="radio"/> A Three days</p> <p><input type="radio"/> B Three hours</p> <p><input type="radio"/> C Three weeks</p> <p><input type="radio"/> D One day</p>
<p>3. The term for a giant wave caused by an earthquake under the ocean is</p> <p><input type="radio"/> A Tectonic plate</p> <p><input type="radio"/> B Earthquake</p> <p><input type="radio"/> C Seismograph</p> <p><input type="radio"/> D Tsunami</p>	<p>4. A seismograph measures</p> <p><input type="radio"/> A Length of time</p> <p><input type="radio"/> B Heat</p> <p><input type="radio"/> C Vibrations</p> <p><input type="radio"/> D Wave speed</p>
<p>5. This article is mainly about</p> <p><input type="radio"/> A Earthquakes</p> <p><input type="radio"/> B The Richter Scale</p> <p><input type="radio"/> C Tsunamis</p> <p><input type="radio"/> D The Great San Francisco Fire</p>	<p>6. If you lived on an island located in the Ring of Fire, it would be most important to learn about _____ safety.</p> <p><input type="radio"/> A Snow storm and blizzard</p> <p><input type="radio"/> B Tsunami and earthquake</p> <p><input type="radio"/> C Smoke alarm</p> <p><input type="radio"/> D City traffic</p>
<p>7. Do you think an earthquake could cause a huge fire today, like the one in San Francisco in 1906? Why?</p> <p>_____</p> <p>_____</p>	<p>8. What do you think scientists can learn about earthquakes from studying rocks in the areas where they occur?</p> <p>_____</p> <p>_____</p>

