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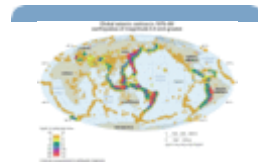
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# earthquake

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any sudden shaking of the ground caused by the passage of **seismic waves** through the Earth's rocks. Seismic waves are produced when some form of energy stored in the Earth's crust is suddenly released, usually when masses of rock

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straining against one another suddenly fracture and "slip." Earthquakes occur most often along geologic **faults**, narrow zones where rock masses move in relation to one another. The major fault lines of the world are located at the fringes of the huge tectonic plates that make up the Earth's crust.



Crowds watching the fires set off by the earthquake in San Francisco in 1906, photo by Arnold ...  
*Library of Congress, Washington, D.C.*

### Table

Few natural phenomena can wreak as much havoc as earthquakes. Over the centuries they have been responsible for millions of deaths and an incalculable amount of damage to property (see the **table** of major historical earthquakes). While earthquakes have inspired dread and superstitious awe since ancient times, little was understood about them until the emergence of seismology at the beginning of the 20th century. **Seismology**, which involves the scientific study of all aspects of earthquakes, has yielded answers to such

long-standing questions as why and how earthquakes occur.

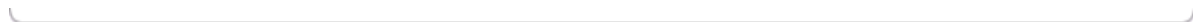
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