How Shifting Plates Caused the Japan Earthquake and Tsunami in Japan

The sudden movement of the Pacific tectonic plate under the North American plate caused a massive earthquake and a tsunami.

When the tsunami nears land, the shallower water causes the wave height to increase. The waves push inland because so much water and energy has built up behind them.

Magnitude of shaking

An 8.9-magnitude earthquake struck the coast of Japan on Friday at a depth of about 17 miles below the earth's surface. Dozens of aftershocks, some of magnitude 6.0 or greater, were felt after the quake.

Source: U.S. Geological Survey

Predicted tsunami wave heights

The tsunami set off warnings for much of the Pacific basin including the west coast of the United States.

Source: U.S. Geological Survey
How Shifting Plates Caused the Japan Earthquake - Interactive Feature - NYTimes.com

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Satellite Photos of Japan, Before and After the Quake and Tsunami

Compare satellite images of areas of Japan before and after the disaster.

A Closer Look at the Damage From the Earthquake and Tsunami in Japan

Zoom in on images and examine scenes of the destruction in Japan.

Aftermath of the Earthquake in Japan

Tokyo bureau chief Martin Fackler reports on the huge earthquake and tsunami that hit Japan.

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