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# Earth's Dynamic Geosphere: Earthquakes Activity 5 - Lessening Earthquake Damage

# This investigation will help you to:

- Investigate:
- Preparing for the Chapter Challenge
- Inquiring Further
- Learn more about the Plate Tectonics Theory
- Learn more about Paleomagnetism

## Investigate :

- 4. Look into the municipal building code in your community (contact your town or city government office).
  2001 California Building Standards Administrative Code
- 3. Examine a detailed map of California.

Courtesy of the Microsoft Corporation, 57,000 U.S. Geological Survey topographic maps were digitized and are now available on the Web.

Find topographic maps by place name, latitude and longitude, or UTM coordinates under the Get A Map section. Allows you to download topographic maps (including USGS maps) for free, at various scales (from 1:100,000 to 1:24,000).

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## Preparing for the Chapter Challenge

Find a community mitigation plan for your community.

- ABAG Home Quake Safety Toolkit
- Read about the Alquist-Priolo Earthquake Fault Zoning Act which was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy.

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## Inquiring Further

The Pacific Tsunami Warning Center has provided successful advance warnings of potentially dangerous tsunami that may affect areas distant from the original earthquake. Find out about this tsunami system.

• Online brochure by the US Dept of Commerce, NOAA, the National Weather Service, Intergovernmental Oceanographic

Commission, and International Tsunami Information Center, written to increase awareness and knowledge of tsunamis.

- NOAA's web site, includes data on recent tsunamis and spectacular animation.
- History of local tsunamis, including geological evidence and legends surrounding these giant waves.
- A site geared for kids about tsunamis.
- Reviews what a tsunami is and what kinds of damage are typically associated with a tsunami occurrence.

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#### Learn more about the Plate Tectonics Theory

- "Plate Tectonics: The Rocky History of an Idea" the Museum of Paleontology, University of California at Berkeley Reviews the development of plate tectonic theory by the late, great Alfred Wegener.
- "Developing the Theory" from This Dynamic Earth, USGS
- "Harry Hammond Hess" from This Dynamic Earth, USGS
  Read about the man who developed what eventually became known as "sea floor spreading".
- "Our Changing Continent" by J. S. Schlee, USGS
  Looks at the clues paleogeographers use to determine the positions of the continents back through time. Many of these clues were used to initially validate the theory of plate tectonics.

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#### Learn more about the Paleomagnetism

"Paleomagnetic Analyses" - USGS
 Click on the links to learn about the varying scientific applications of paleomagnetics and the equipment used to complete these investigations.

- "The Geomagnetic Field Frequently Asked Questions" NOAA, National Data Centers, NGDC This site should clear up confusions about the use of geomagnetics and provides helpful links to other sites if more information is desired.
- "AGU Geomagnetism and Paleomagnetism Section" Reviews the basic of paleomagnetics and how scientists measure the magnetic field of the Earth. Also provides additional links for further exploration.

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