



Royal Thai Distance Learning Foundation and University of Oregon, AEI Tsunami Zone Project, 2009-2010: Activity, Earthquake-Tsunami Events

Objectives

Students work with maps, drawings, animations, and other representations of earthquakes and tsunami events in order to understand and express their experience with the ways in which they effect the earth.

Instructions

For younger students, complete one or more of the activities at the “Earthquakes for Kids” website from the U.S. Geological Survey (USGS): <http://earthquake.usgs.gov/learn/kids/>

Especially recommended, with the following suggested adaptations:

- **Earthquake ABC:** Students can generate similar A-B-C drawings on the earthquake or another disaster-related theme.
- **Animations:** Have students watch the animations and orally and/or in writing describe *in their own words* what they see on the screen (this should *not* be a copy of the USGS written description).

For older students, complete one or more of the following mini-research activities using real-time digital maps linked from the USGS website and Earthquake Tsunami Topics: <http://earthquake.usgs.gov/>

Mini-Research Activity #1:

Go to the Pacific Tsunami Warning website once a day for a period of time (1 week or 2 weeks):

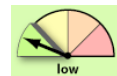
<http://www.prh.noaa.gov/pr/ptwc/>

Find the answers to these questions about the 4 regions and report on your findings:

1. Does the meter read low, medium, high, or very high?
2. How many tsunami messages are there each day for each region?
3. How far are the stars (recent tsunamis) from your country?

* Hint: To review of the names of continents and oceans, see: “Warm-up Webquest”

<http://thaiuo.uoregon.edu/tsunami.html>



Mini-Research Activity #2:

Go to the NOVA website and (a) launch the interactive “Once and Future Tsunamis” (historical, less personal), or (b) watch the program “Wave that Shook the World” (video footage of real events; may not be suitable for all learners).

Suggested activity, adapted from the Teacher’s Guide, Kristen Holden “Understanding the Force of Water” at: http://www.pbs.org/wgbh/nova/teachers/ideas/3208_tsunami.html

The force of water shapes Earth more than any other moving force. Students may think they can stand up in water and let the waves pass by them. By tossing plastic jugs (containers) of water, students begin to understand the strong force that water can have.

Instructions: Fill clean, 1-liter water or soda jugs with water and seal them with lids. Students work outside in pairs or groups. They gently toss a jug to each other at a 1-meter distance. Ask students to note how heavy this one jug feels when they catch it. Have them throw the water a little harder during the second toss. Is the force greater? Yes. Next, students take 2 steps back and throw the jug with a strong force (but not too strong) while another student catches it. How much impact (force) did that throw have? Students will say that it was quite strong. Finally, have students imagine the water from hundreds of these jugs hitting their bodies at once. What would it feel like? What would it do when it hits buildings and trees and cars? What can they do for protection?