

NOVA: Deadliest Earthquakes

Watch the NOVA episode, “Deadliest Earthquakes” and take notes. Find at least 10 facts about earthquakes that seem important enough to include on Quiz 3: Earthquakes.

<http://www.pbs.org/wgbh/nova/earth/deadliest-earthquakes.html>

Teacher Notes:

- Megathrust: very powerful and destructive earthquake, caused by subduction at convergent boundaries
- Tsunami: large, powerful wave that can destroy buildings and flood coasts, often caused by an underwater megathrust quake
- Slow-slip: slow and “quiet” movement deep along a fault (25 km), produces microquakes that humans can’t feel
- Earthquakes can trigger other earthquakes along a fault
- Global clustering: theory that earthquakes might cluster globally, or increase in frequency, on 50-year cycles
- Seismology: study of earthquakes; Seismologist: scientist who studies earthquakes
- Engineering earthquake and tsunami resistant structures important tactic to lessen damage and fatalities
- Cascadia Fault: important subduction fault along Pacific Coast (N. California, Oregon, Washington, S. Canada)
- Evidence of past earthquakes can be hard to find on land, but mud/sand deposits on ocean floor can give clues to past earthquake frequency
- Most earthquakes occur around 15 km deep along faults, slow-slip quakes are deeper, around 25 km down
- Scientists study slow-slip in the hope it can lead to better prediction of damaging quakes