

NOVA Video: "Earthquake!"

Some questions to think about as you watch the video:

1. Where do earthquakes occur?
2. How does plate tectonic theory explain the occurrence of earthquakes?
3. How are the magnitude, duration of shaking, and size of the area affected by an earthquake related?
4. Is the loss of life directly related to these factors?

Quake	Magnitude	Duration of Shaking	Area Affected	Loss of Life
Loma Prieta (1989)				
San Francisco (1906)				
Alaska (1964)				

5. What factors affect the amount of damage sustained by structures?
6. How do different types of geologic foundation materials affect the severity of shaking during an earthquake?
7. In addition to the shaking caused by the passage of seismic waves, what other earthquake-triggered effects cause damage to life and property?
8. What precursory geologic phenomena have been used to predict earthquakes?
9. How reliable are these precursors?
10. What is the goal of the Parkfield prediction experiment?
11. How has the study of paleoseismicity affected earthquake prediction efforts?
12. What is the value of long-term earthquake probability assessments?
13. What is the current state of long-term vs. short-term earthquake prediction?
14. What is the dilemma illustrated by Al Lindh's story of the two Japanese seismologists?