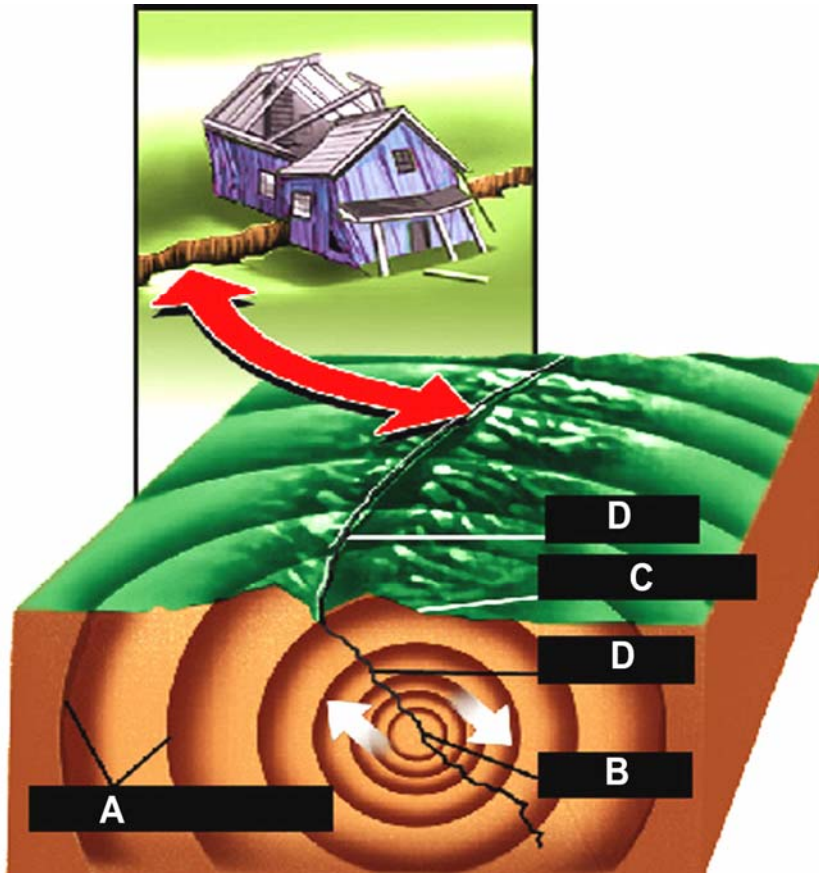


EARTHQUAKES

The movement of the lithosphere due to releasing stored energy.

Seismic waves: the vibrations that carry the energy released during an earthquake.

- Stress in the Earth's Crust
 - Stress:** a force that squeezes rocks together, stretches or pulls, or pushes them in different directions. Cause:
 - Faults:** a *break* in a mass of rock where movement occurs.
 - Folds:** a *bend* in layers of rock where rocks are squeezed but do not break.
- Earthquake Anatomy
 - Focus:** where an earthquake begins
 - Epicenter:** the location on the surface directly above the focus.
 - Seismic Wave Types:
 - P wave:** (primary wave) longitudinal waves that compress the ground like an accordion.
 - S wave:** (secondary wave) transverse wave that move the ground at right angles to the direction of the wave's movement.
 - Surface waves:** develop when seismic waves reach the surface. Move slowly, produce great movement and damage.



- Measuring Earthquakes
 - Seismograph:** device that detects and records seismic waves.
 - Richter Scale:** based on seismograph data.
 - (weak 1 to 10 strong)
 - Moment Magnitude Scale:** measures the energy released.
 - Modified Mercalli Scale:** based on damage done and intensity of ground shaking. (1-12)
- Tsunami:** A large wave caused by underwater earthquakes whose energy moves through the water.
 - As the water becomes more shallow, the wave height increases (in some cases 100s of feet)
- magma hardens in a volcano's pipe.