

Earth Science 11

Unit 3 – Plate Tectonics

Day 4 – Earthquakes and Tsunamis

Name: Schaub

Date: _____

Block: _____

Earthquake: result from a rupture of rocks along a fault (fracture in earths crust). Energy is released in the form of seismic waves.

Stress: the force applied to the material

ex: compression, tension, shearing

Strain: the deformation or displacement of material that results from an applied stress

Stress causes strain

Folds: Folding – this occurs when rock responds to stress by becoming permanently deformed without breaking.
Folds appear as a wavelike structures in rock layers.



Seismic Waves: When an earthquake occurs, seismic waves radiate outward in all directions from the focus.

Earthquakes that cause the most damage usually have a shallow focus.

This means that they are not very deep under the ground – within 43.5 miles from the earth's surface.

Types of Breaks in rocks:

Fracture: when there is no movement in the rocks along either side of a break.

Fault: when the rocks move after breaking



Elastic Rebound Theory: rocks on each side of a fault are moving slowly, and when the rocks are stressed to a certain point, they will fracture, separate at their weakest point, and spring back to their original shape, or rebound.

Aftershock: smaller tremors that can be felt after an earthquake.

Focus: the point at which the slippage first occurs

Epicenter: the point on earths surface directy above the focus

