Getting Shaken by Earthquakes

Name: _____
Date: _____
Period:_____ Page: _____

Objectives:

1. Explain how movement along Earth faults release energy to cause Earthquakes
2. Describe and model the type of energy waves produced during an Earthquake

What is an earthquake?

- A sudden and violent shaking and _____ of _____ in Earth's _____.

Causes of Earthquakes:

- _____ _____
- Along _____ zones
- In _____ _____ or other man-made explosions

Where are earthquakes likely to occur?

- _____
- Along fault zones
- _____.

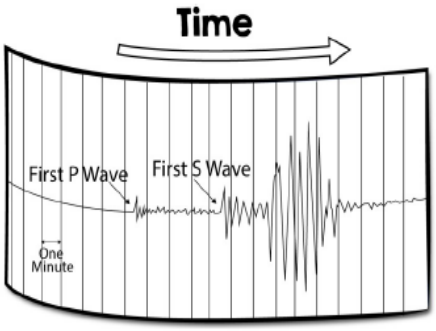
What is a FAULT?

A natural _____ or _____that make up Earth's crust, along which rocks have _____ relative to one another

Earthquake Waves

Primary (P) Wave

- The _____ and _____ energy (seismic) wave
- Can move through _____ rocks and _____
- Move in a straight _____ and _____ motion



Secondary (S) Wave

- _____ energy (seismic) wave; slower than ___-wave
- Can only move through _____
- Moves _____ to _____

Surface-Love (L) Wave

- _____ and last and many energy (seismic) wave
- Form when _____ and _____waves reach _____
- Moves up and down and _____
- Waves that people feel and are most _____

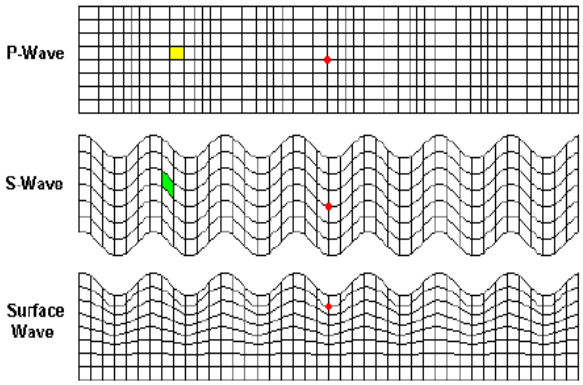
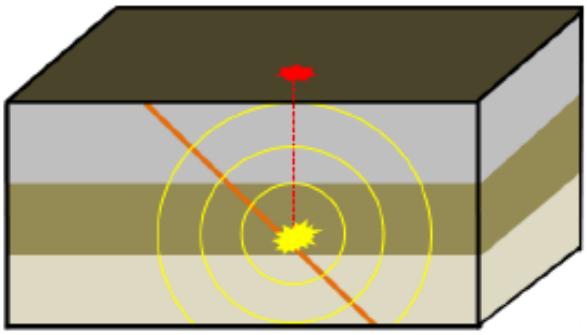


Diagram: www. uwgb.edu

Anatomy of an Earthquake

Label the epicenter and the focus on the diagram below.



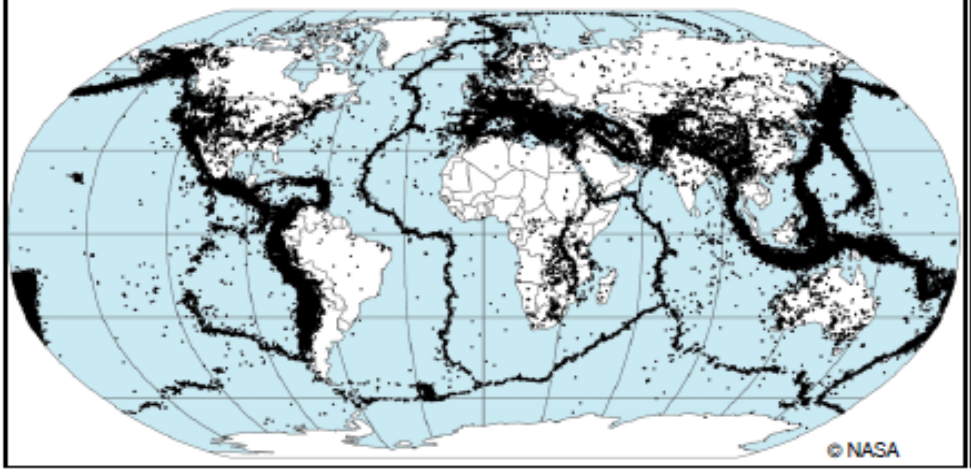
Epicenter:

The location above the _____ of an earthquake _____ the surface

Focus:

The area of _____ on a fault _____ the surface where the earthquake happens

Preliminary Determination of Epicenters
358,214 Events, 1963 - 1998



Draw an arrow to the approximate location of your hometown on the map to the right.

Do you live in an earthquake zone?

Looking at the map of epicenters shown above, what do you notice about the location of most of the world's earthquakes? What pattern do you notice?

Explain the pattern of earthquake epicenters shown on the map. Why do most of the world's earthquakes occur in these areas?