

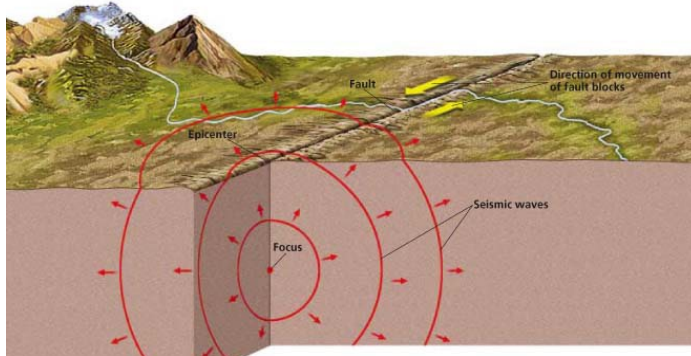
_____ = movement of the _____ that is caused by a sudden release of energy when _____ along a _____ move
 _____ = a smaller _____ that happens _____ a major one
 _____ = _____ in Earth where _____ has occurred

A) Why earthquakes happen

- 1) _____ on both sides of a fault become locked due to _____
- 2) _____ builds up and the crust _____
- 3) Rock _____ and _____ back to its original shape (_____)

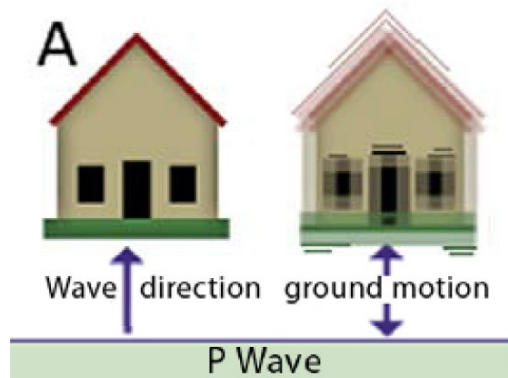
B) Anatomy of an Earthquake

- 1) _____ = The place in a fault where the earthquake actually _____
- 2) _____ = The point on Earth's _____ directly _____ an earthquake's focus.



C) _____ Waves

- 1) _____ Waves = moves through the _____ of Earth
 - a) _____ Waves (P waves)/ _____ waves =
 - *the _____ wave & the first to be picked up by a **seismograph**.
 - *Come through the earth from the _____ up into a _____
 - *Can go through _____, _____, and _____
 - *Particles slam _____ into neighbors, then _____



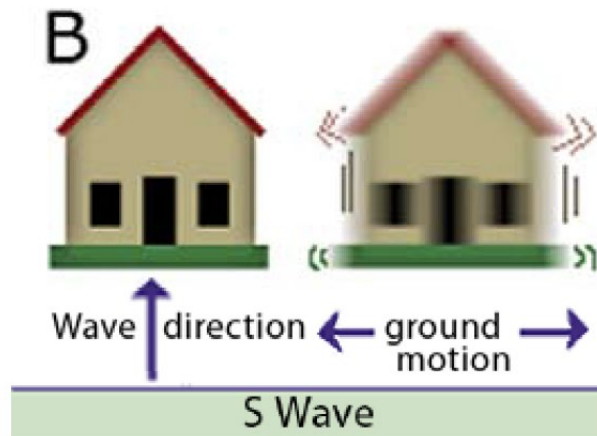
b) Waves (waves)/ waves =

*the _____ wave to be picked up by a _____.

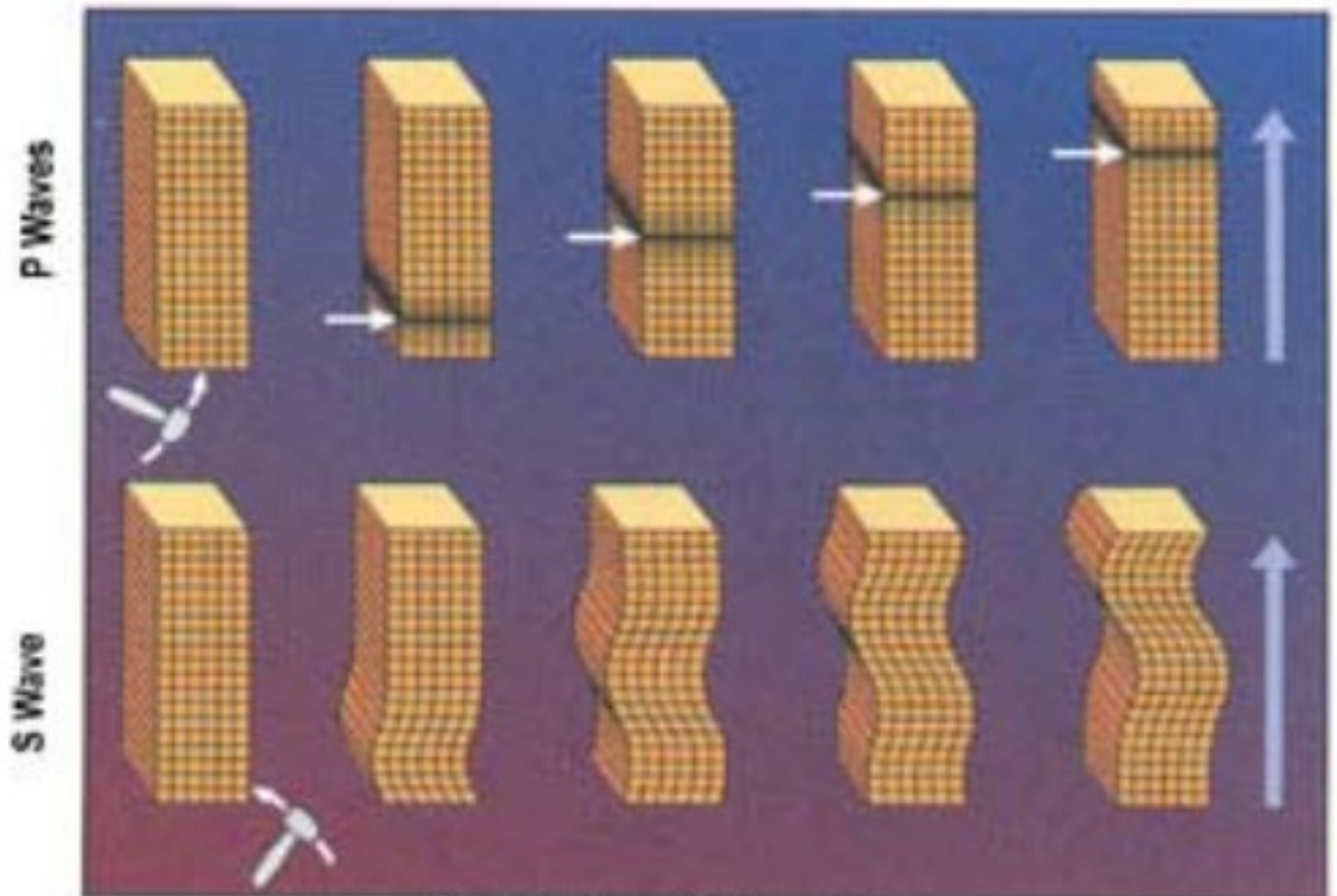
*Come through the earth from the _____ up into a _____

*Move particles _____ to _____ like a snake

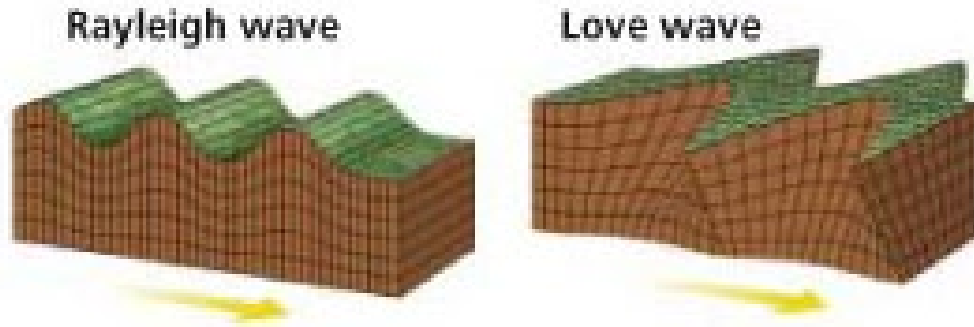
*Only travel through _____.



Body Waves



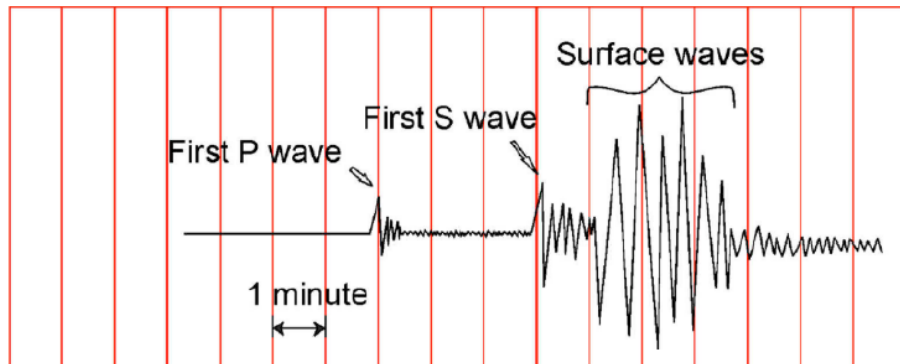
- 2) Waves = Wave that travels along the _____ of Earth
- a) Love Waves = Move rock _____ to side and _____ and down
Hit the building from the _____
Do the most _____
- b) Rayleigh Waves = Rock moves in an _____, rolling motion.
Hit the _____ from the side
Do the most _____



D) Measuring Earthquake sizes and locations

1) Tools used:

- a) _____ - _____ used to record earthquake waves
- b) _____ - the _____ with the recorded seismic waves

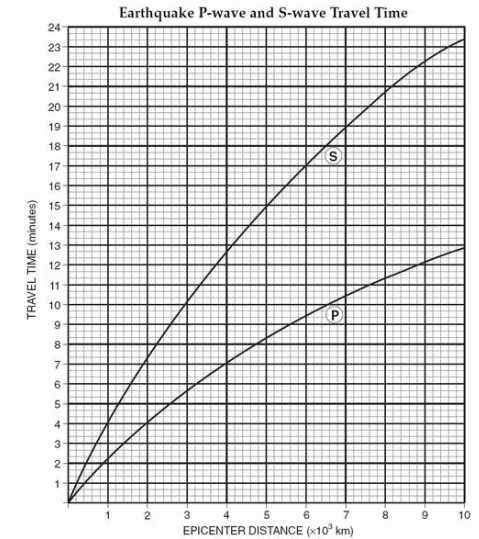
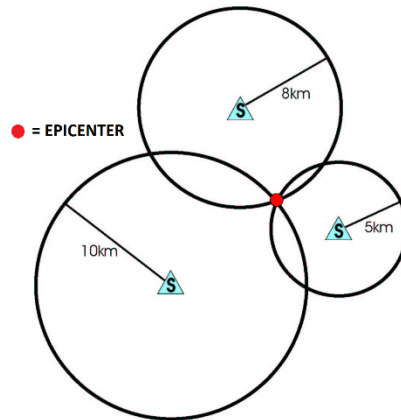


2) Scales used:

- a) _____ scale - describes the magnitude (strength) and each whole number represents an earthquake that is _____ larger
- b) Moment _____ scale - measures _____ along a fault
- c) Modified _____ Scale - ranks earthquakes by _____
the _____ the numbers, the _____ the earthquake

3) P/S interval method—used to calculate

- time between p and s wave is _____ (**lag time**)
- using wedge method, find time gap on chart
- follow chart down to find _____ waves travelled
- repeat for 2 other _____
- draw _____ on map to find **epicenter**



E) Earthquake frequency

- occur most often near _____ boundaries (many around ring of _____)
- _____ per day
- “predicted” by studying the _____ **gaps** – an area along a fault where there hasn’t been an _____ for a long time

F) Earthquake hazards

- Seismic shaking**- ground _____
- _____ -large series of _____ that can cause a lot of damage
- liquefaction**- stable soil turns to _____ collapsing buildings, bridges, highways, etc.
- _____ -loose rock and soil slide _____
- mudflow**-soil and water mix then rapidly _____ downhill

G) Earthquake safety

- crouch under _____ table
- cover _____
- avoid _____
- move to open _____
- avoid trees, _____, vehicles