-when the waves travel through the earth, small rock particles move up and down.

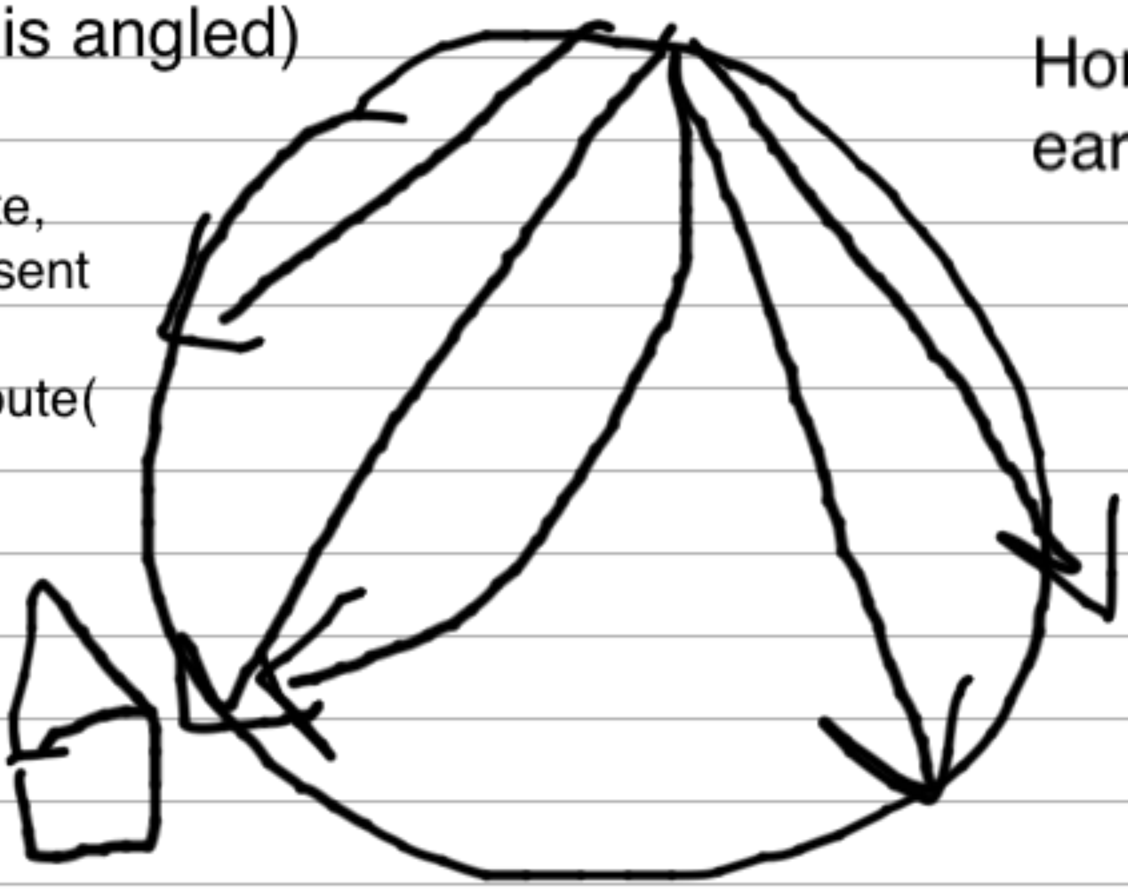
Two waves : surface and body waves.

- p waves are the first waves to be recorded on the seismograph (primary waves)
-when the p waves reach the surface, they cause low frequency deep sounds.
-S waves are the second waves to read on the seismogram. (secondary waves)
-love way cause the earth to move side to side
- Rayleigh waves cause the particles to move in a circular motion. ( travel through ???)
-the velocity of the seismic waves varies on two things, the state of the matter and the density of the material.
- the velocity of the waves increase as the density increases.
-slight decreases in velocity when traveling through the crust to the mantle because of magma, (2% decrease)

-changes in velocity when there is a change of state

-s waves stop reading on seismogram at the core mantle boundary because s waves only travel through solids and we all know that the outer core is liquid. Liquid rock=magma.

-seismic waves~ light waves, can be reflected ( like when you shine a light into the mirror and it projects onto where ever it is angled)



Straight lines represent the homogenous route, curved line represent the actual heterogeneous route( slower route)

Homogenious earth

-S waves, the refracted part will be lost and the reflected part will be reflected ( at the core mantel area)

- p waves entering the core are deflected and constrained within the core, exiting at the bottom of the core.

2.2.4 - the mercalli scale is not accurate because it is subjective of other peoples perceptions and relies heavily on that.

Get mom to ship skates and sweater

To get older info on earthquakes we use the mercaelli scale and based on that we give it a magnitude based off the richter scale.

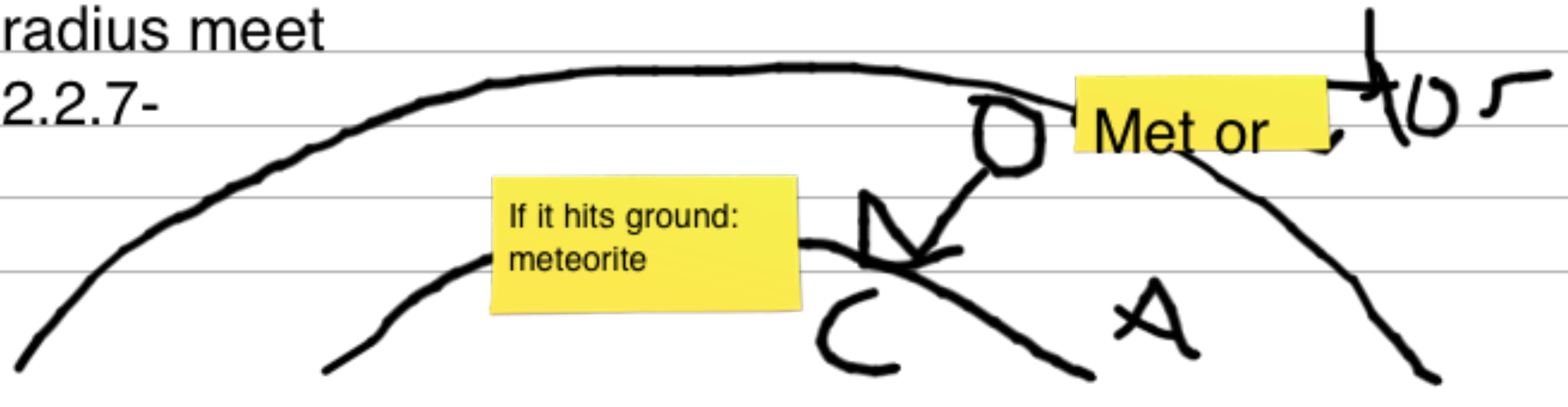
- moment magnitude scale- when an earthquake happens, a piece of the earth where it happens is taken to the lab and tested, the point at which it faults (a magnitude #)

-Boursin di dong yi - is a device the chinese made (200ad) a device that had a pendulum attached to 8 dragons and was used to find where the earthquake was happening, because the pendulum was attached to the dragons, when an earthquake happened the pendulum would cause strain on the string in which the wave passed through causing the dragons to drop a ball. Where the ball fell was the indicator of the direction

- p and s waves do not cause most of the damage on earth, surface waves do.

- we can find the epicenter of an earthquake by knowing the time lag of various cities and finding where there radius meet

2.2.7-



Met or

If it hits ground: meteorite

folds fade out once it's away from where the tension is happening.

2.3 rock reformation: folds and faults

-elastic- if we apply stress to an object it is going to deform, if it's elastic it will come back to it's initial state.

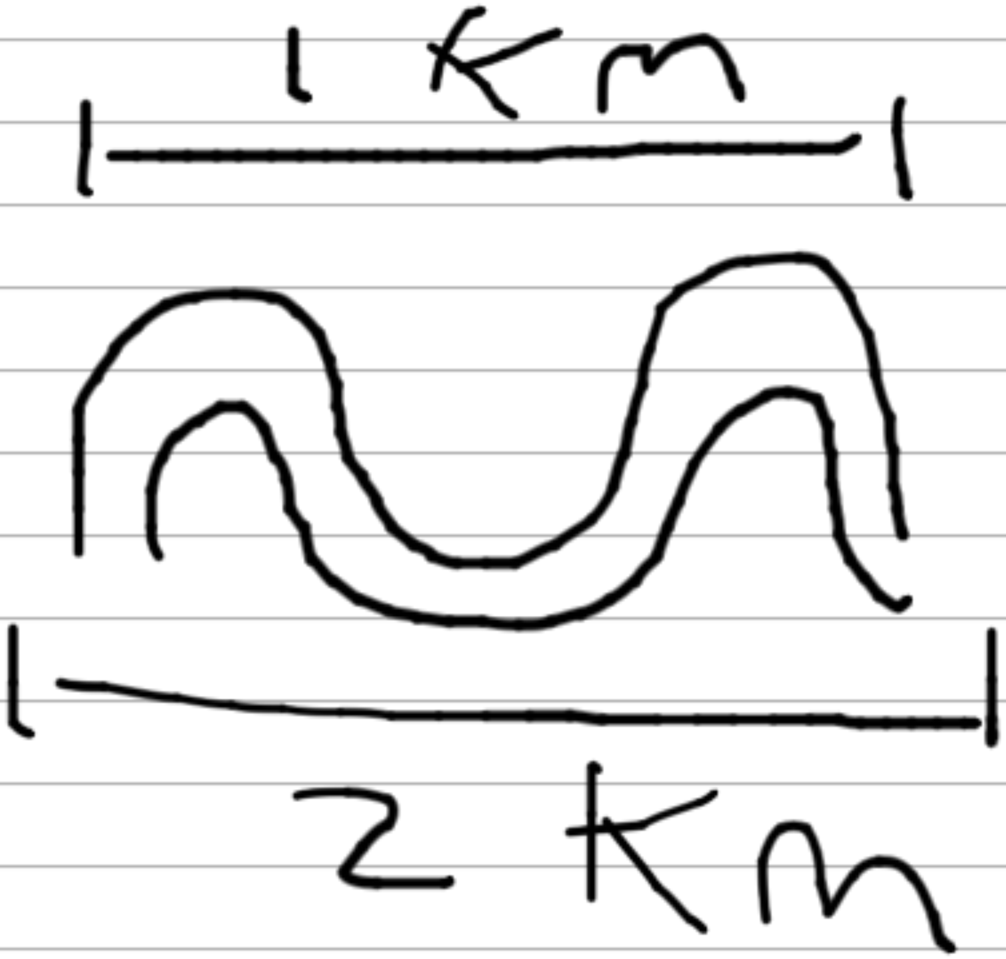
Plastic- if you apply stress it will deform, and will permenatly be deformed and stay that way.

Brittle- breaks

When it is cold an object is more likely to act brittle rather then plastically. And vice versa.

2.32(folds: remember the shirt reference, when pulling your shirt apart it'd flat like pancake, but when you move your fingers closer together (compressing) the shirt folds.

The shortage of crust is a cause of the folding of rocks



axis- the line at which the most curvature occurs

232 types

Upright- a symmetric vertical fold
Asymmetric- one side is still vertical one is not
Recumbent- is when both sides are horizontal

3 types based on attitude of axis:
horizontal, plunging, vertical