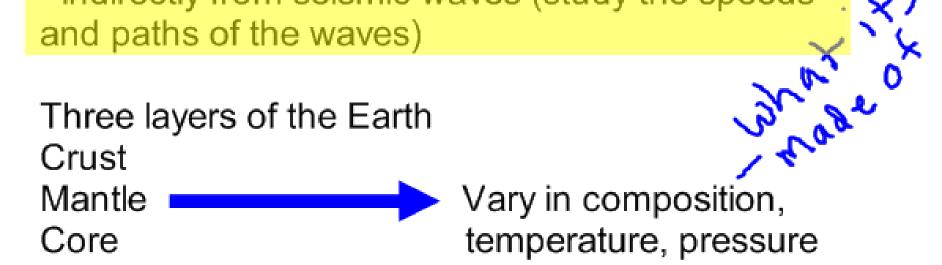
Sec 2 Earth's Interior

Geologists learn about the Earth's interior in 2 ways

- directly from rock samples (samples from deep in the Earth and volcanoes blast rocks to the surface)
- indirectly from seismic waves (study the speeds and paths of the waves)



Pressure and Temperature increases as you go deeper into the Earth

Crust - outer skin of the Earth

- Oceanic Crust (basalt- dark fine grained rock)
- Continental Crust (granite light color, coarse grain)
- 5 to 40 km thick
- thickest under mountains up to 80 km thick
- thinnest under oceans
- made of oxygen and silicon

Mantle- hot, solid, consist of three layers lithosphere, asthenophere, mesosphere

- contains magnesium and iron
- 3,000 km thick
- below the crust

Lithosphere - the crust and uppermost layer of the mantle, strong, hard, rigid (100km thick)

Asthenosphere - below the Lithosphere- hotter and more pressure than Lithosphere, solid, soft, less rigid

Mesosphere - below Asthenospere, hotter, more rigid because of increasing pressure (lower mantle)

Core - below the mantle, very hot, metal

- iron and nickel
- liquid outer molten metal
- solid inner so dense that the atoms are squeezed so much they cannot spread out and become a liquid

Earth's Magnetic Field - created by movement in the liquid outer core

- giant bar magnet
- North and South poles

By spreading fine iron filings or dust on a piece of paper laid on top of a magnet, you can see the outline of the magnetic lines of force or the magnetic field.

- Place the bar magnet flat on the lab table.
- Cover the bar magnet with a piece of paper.
- Sprinkle the iron filings over the paper that is covering the bar magnet.
- 4. Observe and draw the magnetic field.
- 5. Does this lok like the magnetic field around the Earth on page 17 in your book?

