Bobby Creaney

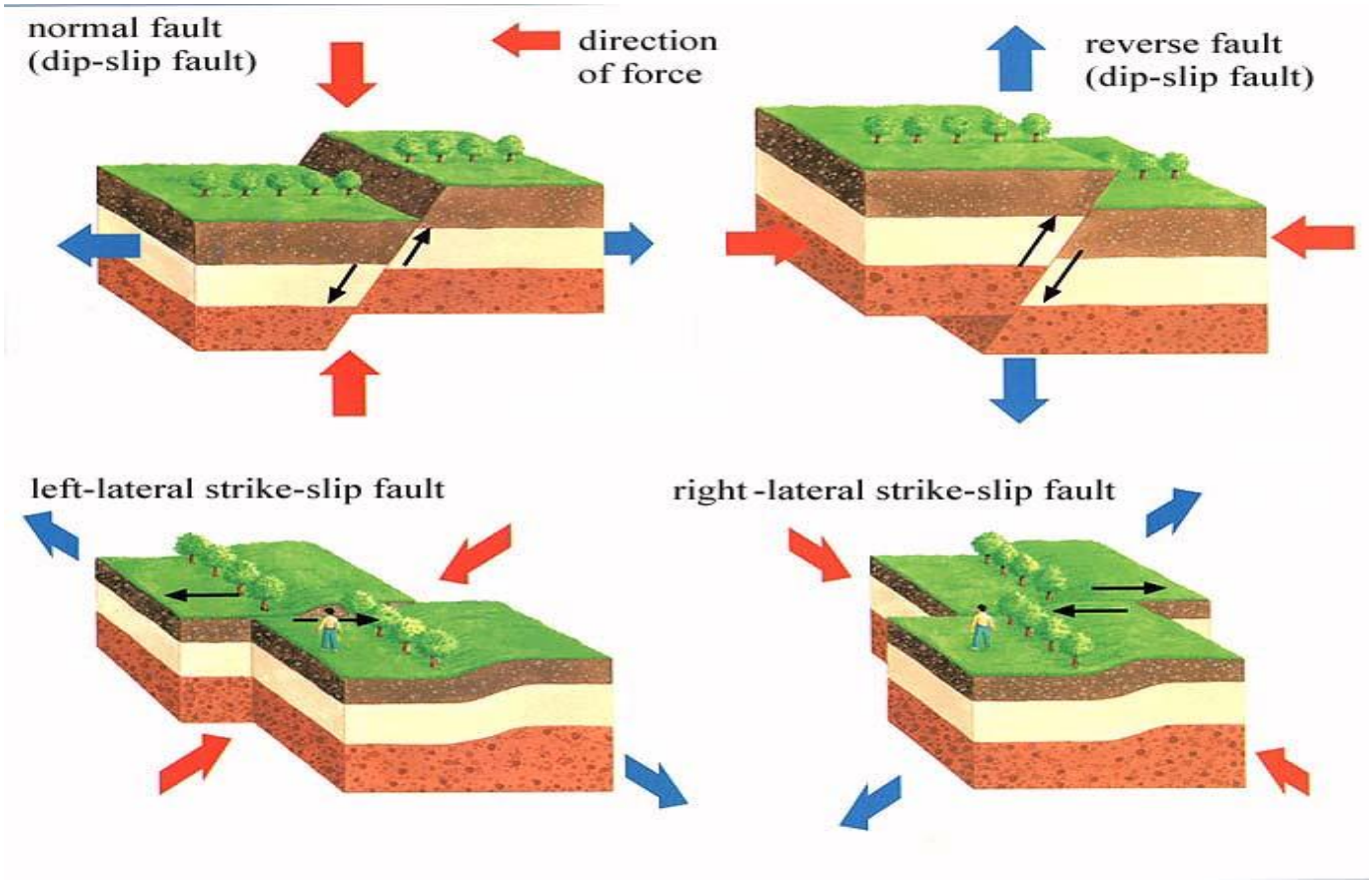
G203

Lecture #1 notes

Normal Fault: When two plates slide away from each other (extension). This process thins the crust.

Reverse Fault: When two plates slide into each other (Compression). This process thickens the crust

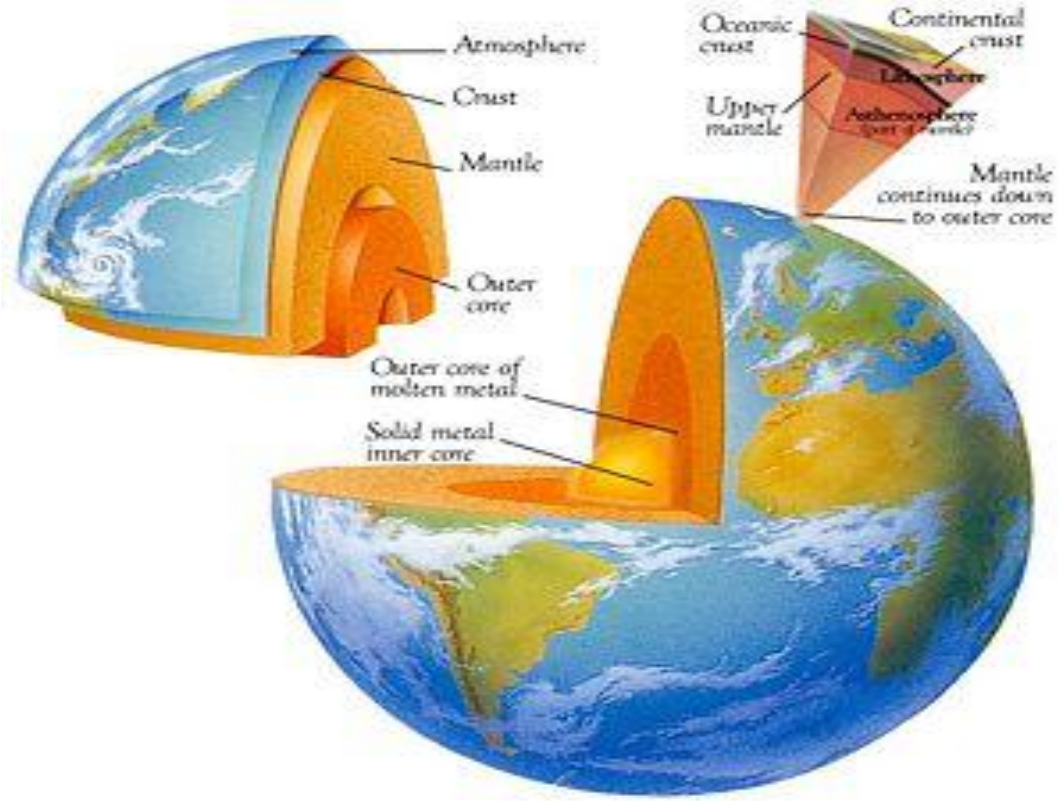
Strike-slip Fault: When two plates slide next to each other. No thinning or thickening happens in this process.



http://www.hp1039.jishin.go.jp/eqchreng/figures/af1-2.jpg

Layers of the earth:

- **Crust:** Top layer of the earth. Made of low density silicon and oxygen based rocks.
    - **Oceanic Crust:** Crust that is under the ocean. More dense than Continental Crust.
    - **Continental Crust:** Crust that is land. Less dense that Oceanic Cr ust
- **Mantle:** Under the Crust. Made of silicon and oxygen based rocks. Also containing heavier elements such as Iron and Magnesium.
    - **Lithosphere:** Outer most layer of the mantle. Strong, relatively solid. 0-100 Km deep floats on the Asthenosphere.
    - **Asthenosphere:** Just below the Lithosphere. Heats-softened and almost at melting temperature, slow flowing.
      100-350Km deep
- **Core:** Center of the earth, also the densest. Composed of mostly Iron and Nickel.



http://edu.glogster.com/media/2/7/79/98/7799825.jpg

Composition of the crust

- **Crust**:
    - Igneous Rocks : Cooled from molten (volcanic) material.

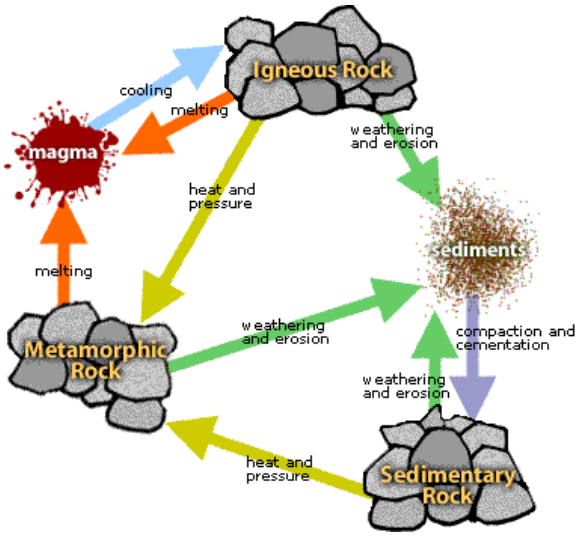
http://library.thinkquest.org/05aug/00461/images/igneous.jpg

    - Sedimentary rocks: formed by erosion (rain, wind, water, gasses) from pre-existing rock, plants, and animals → broken down into sediment then compacted or cemented.
    -

http://www.world-builders.org/lessons/less/les2/gifs2-20/sedgifs/layers38044.jpg

- Metamorphic rock: when heat pressure or chemical reaction in the earth's interior change the mineralogy of chemical composition, and structure, of any type of pre-existing rock.

http://www.bcssa.org/newsroom/scholarships/great8sci/Photos/Earth_Photos/metamorphic.jpg



http://www.teachnet-lab.org/ps101/bglasgold/rocks/EFCycleP2.gif