Book F Chapter 2
Lesson 1 Notes

I. Rocks
   a. Rocks are ALWAYS changing
   b. New rocks form from older rocks.
      i. Use for:
         1. Tools
         2. Building materials
         3. Roads

II. Geological Processes
   a. Make and destroy rock INSIDE EARTH (p. 29)
      i. Compaction/Cementation
      ii. Metamorphism
      iii. Heating
      iv. Cooling

III. Weathering/Erosion/Deposition → UPLIFT: Process that happens at the surface
   a. Occurs on the SURFACE OF EARTH
      i. Weathering
         1. Water, wind, ice, heat, & gravity <u>break down</u> rock
         2. Rocks broken down into <u>smaller pieces</u>
            a. Main component of <u>SEDIMENTARY ROCK</u>
      ii. Erosion
         1. Water, wind, ice, gravity <u>moving</u> sediment from one place to another
      iii. Deposition
         1. Sediment moved by erosion (dropped and at rest)
         2. Deposition occurs in low lying areas and bodies of water
            a. Over time-sediment compacts & hardens
            b. Forms a type of rock called SEDIMENTARY ROCK

COMPACTION & CEMENTATION ←

IV. Heat and Pressure (Inside Earth)
   a. Pressure from the weight of layers of sediment creates different types of rocks
   b. Temperature (heat) can also create different types of rocks

V. ROCK CYCLE (is continuous)

a. Rock buried deep below surface becomes exposed by
   i. Erosion
   ii. UPLIFT (occurs on the surface)
      1. A geological process that causes rocks to move to the surface
         a. Earthquakes
         b. Volcanoes

b. Variables that affect rocks:
   i. Time
   ii. Heat
   iii. Pressure
   iv. Weathering
   v. Erosion

Location of rock impacts these variables

c. Rock located at **Earth's Surface**:
   i. Weathering & Erosion

d. Rock located **deep inside Earth**:
   i. Heat & Pressure

INSERT FIGURE 3 (P. 32)

VI. Rock Classification

i. **3 main classifications** of rocks (Based on how the rock formed)
   1. SEDIMENTARY
   2. METAMORPHIC
   3. IGNEOUS

ii. Scientists must look at the rock's COMPOSITION & TEXTURE in order to classify rocks

iii. **Composition**: Chemical makeup of the rock
   1. Rock are made of chemicals that form minerals

iv. **Texture**: size, shape, & position of the material (grains)
   1. Fine-grained/coarse-grained
   2. Texture of rock can provide clues to how/where a rock formed

4 Processes that change rocks INSIDE the Earth:

1. Compaction/cementation (pressure)
2. Metamorphism
3. Heating
4. Cooling

4 Processes that shape the Earth's SURFACE

1. Weathering
2. Erosion
3. Deposition
4. Uplift