I. Mapping Earth's Surface Chapter 1

A. Exploring earth's Surface Section 1

1. Topography
    a. The shape of the land (flat, sloping, hilly, or mountainous
    b. The topography of an area is determined by the area's elevation, relief, and landforms
    c. Elevation-The height above sea level of a point on Earth's surface
    d. Relief- the difference in elevation between the highest and lowest parts of an area
    e. Landforms- a feature of topography formed by the processes that shape Earth's surface
        i. All have elevation and relief
        ii. Landform region- large area of land where topography is similar
2. Types of Landforms
    a. Three main types of landforms, plains, mountains and plateaus
    b. Plains- landform made up of flat or gently rolling land with low relief
        i. Coastal plain- plain that lies along sea coast
        ii. Interior plain- lies away from seacoast
    c. Mountains-landform with high elevation and high relief
        i. Mountain range- group of mountains related in age, shape and structure
        ii. Mountain belts- mountain ranges and systems connected
3. Earth's Four Spheres
    a. Lithosphere-Earth's slid rocky outer layer
    b. Atmosphere- outermost sphere, mixture of gases that surrounds a planet
    c. Hydrosphere- Earth's oceans, lakes, rivers and ice

d. Biosphere- All living things in the air, oceans or beneath Earth's surface

4. Earth's Structure
    a. Core- solid inner core and hot liquid inner core
    b. Mantle- hot but solid material
    c. Lithosphere- rigid outer covering
    d. Crust- thin outer layer
5. Development of Geology
    a. Uniformitarianism- geologic process that took place in the past also happen today (James Hutton)
    b. Changes are small and subtle and take a long time
    c. Constructive Surfaces- build up mountains
    d. Destructive forces- slowly wear away mountains

B. Models of Earth - Section 2

1.Maps and Globes
    a. Map- model on a flat surface as seen from above
    b. Globe- is a sphere that represents Earth's entire surface
    c. Maps and globes are drawn to scale and use symbols to represent topography and other features on Earth's surface
    d. Scale- relates distance on Earth's surface
    e. Symbols- stand for features on Earth's surface
    f. Key- list of all the symbols used on a map with an explanation
2. An Earth Reference System
    a. Equator
        i. Forms the imaginary line between the northern and southern hemisphere
        ii. Hemisphere- one half of the sphere that makes up Earth's surface

b. The Prime Meridian
    i. Makes a half circle from the North Pole to the South Pole
c. Measurements on a sphere
    i. Degree- 1/360 of the way around a full circle
    ii. Measures distances around a circle

3. <u>Locating Points on Earth's Surface</u>
    a. Latitude- measures distance in degrees north or south of the equator
    b. Longitude-distance in degrees east or west of the prime meridian
4. <u>Map Projections</u>
    a. A framework of lines that helps to show landmasses on a flat surface
    b. Mercator Projection-line appear straight
    c. Equal Area Projection- solves the problem of distortion