**Chapter D - Ecology**

Chapter 1 Ecosystems & Biomes

* 1.1 – Ecosystems Support Life
  + Biotic –
    - Living
  + Abiotic –
    - Nonliving
  + Ecology –
    - The scientific study of how living things interact with each other & their environment
  + Ecosystem –
    - All the living and nonliving things that interact in a particular environment; an ecosystem can be as small as a meadow or a swamp, or as large as a forest or a desert
  + Biotic Factor –
    - The living things in an ecosystem
  + Abiotic Factor –
    - The nonliving things in an ecosystem
* 1.2 - Matter cycles through ecosystems.
  + Cycle –
    - n. A series of events or actions that repeat regularly; a continual physical and/or chemical process in which one material continually changes locations and/or forms, for example, the water cycle, the carbon cycle, and the rock cycle.
    - v. To move through a repeating series of events or actions.
  + Water –
    - The continuous movement of water through Earth, its atmosphere, and the living things on Earth
  + Carbon –
    - The continuous movement of carbon through Earth, its atmosphere, and the living things on Earth
  + Nitrogen –
    - The continuous movement of nitrogen through Earth, its atmosphere, and the living things on Earth
* 1.3 – Energy flows through ecosystems.
  + Producers are the basic feeding relationships in ecosystems
    - Food chains and food webs help show how energy moves through living things
      * Producer>Primary Consumer>Secondary Consumer>Tertiary Consumer
  + Producers –
    - An organism in a food chain that captures light or chemical energy from the environment and stores it as chemical energy in food; producers are also called autotrophs.
  + Consumers –
    - A living thing that gets its energy by eating other living things in a food chain; consumers are also called heterotrophs.
  + Decomposers –
    - A living thing that gets its energy by breaking down the remains of living things that have died; examples include bacteria and fungi.
  + Food Chain – A model used to show the feeding relationship between a single producer and a chain of consumers in an ecosystem; in a typical food chain, a plant is the producer that is eaten by a consumer such as an insect, then the insect is eaten by a second consumer such as a bird
  + Food Web –
    - A model used to show a feeding relationship in which many food chains overlap in an ecosystem.
  + Energy Pyramid –
    - A model used to show the amount of energy available to living things in an ecosystem.
* 1.4 – Biomes contain many ecosystems.
  + Ecosystems of land biomes
    - Are affected by climate
    - Are affected by conditions of soil
    - Are characterized by types of plants
  + Ecosystems of water biomes
    - Can be freshwater or saltwater
    - Are affected by landscape if freshwater
    - Are affected by depth if marine
  + Biome –
    - A region of Earth that has a particular climate and certain types of plants; examples are tundra, taiga, desert, grassland, temperate and tropical forests.
  + Coniferous -
    - A term used to describe cone-bearing trees and shrubs that usually keep their leaves or needles during all year; examples are pine, fir, and spruce trees.
  + Decidious –
    - A term used to describe trees and shrubs that drop their leaves when winter comes; examples are maple, oak, and birch trees.
  + Estuary –
    - The lower end of a river where it meets the ocean and fresh and salt waters mix.