**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.