Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 4 Study Guide**

Directions – Define the following terms in your own words and give an example when possible

1. *Ecology* –
2. *Greenhouse Effect* –
3. *Range of Tolerance* –
4. *Limiting Factors –*
5. *Biodiversity –*
6. *Monoculture* –
7. *Trophic Levels –*
8. *Biogeochemical Cycles –*

Directions – Describe the differences between the following sets of terms

1. *Organisms*, *Populations*, *Communities*, and *Ecosystems*
2. *Hydrosphere*, *Biosphere*, *Lithosphere*, and *Atmosphere*
3. *Carnivores*, *Herbivores*, *Omnivores*, and *Decomposers*
4. *Biomes* and *Aquatic Life Zones*
5. *Abiotic* and *Biotic*
6. *Climate* and *Weather*
7. *Producers (Autotrophs)* and *Consumers (Heterotrophs)*
8. *Genetic Diversity* and *Species Diversity*
9. *Food Chains* and *Food Webs*
10. *Hydrologic Cycle* and *Carbon Cycle*

Directions – Answer the following questions

1. Which is a more accurate depiction of energy flow through an ecosystem: a *food chain* or a *food web*? Why?
2. Why are there always fewer *tertiary consumers* than *producers* in an ecosystem?
3. What is the original energy source for nearly all ecosystems?
4. What is the most common *limiting factor* for terrestrial ecosystems?
5. Which ecosystems have the greatest amount of *biodiversity*?
6. How are humans affecting the *hydrological cycle*?
7. How are humans affecting the *carbon cycle*?