

## Ecology Unit Review Questions

Please answer the questions on your own sheet of paper.

### Chpt. 3

1. What is the definition of ecology?
2. Name the different levels of organization within the biosphere, from smallest to largest.
3. How is sunlight important to most ecosystems?
4. Distinguish between autotrophs and heterotrophs. Give an example of each.
5. Distinguish between producer and consumer. Give an example of each.
6. What is a decomposer? Example?
7. Which group of organisms is always found at the base of a food chain or food web?
8. Why is the transfer of energy in a food chain only about 10% efficient? Where does the other 90% go?
9. Why is it important to cycle nutrients in the biosphere?
10. Distinguish between a food chain and a food web.
11. List several ways  $CO_2$  is added to the atmosphere?

### Chpt. 4

1. What is the difference between an organism's habitat and niche?
2. What is the competitive exclusion principle?
3. Distinguish between the three types of symbiosis. Give an example of each.
4. Distinguish between primary and secondary succession and give an example for each.
5. Why are plants generally few and far between in a desert?
6. Define Climate
7. Define Biome.

### Chpt. 5

1. Sketch the exponential growth curve of a hypothetical population.
2. Describe the conditions under which logistic growth occurs. Draw a graph to represent this.
3. Describe which factors play a role in population growth rate.
4. What is carrying capacity?
5. Describe the long-term effects of competition on populations of two different species competing for the same resources.
6. Describe how a predator-prey relationship can be a mechanism for population control?
7. Explain how density independent (non-density dependent) limiting factors can affect populations.
8. Explain how a limited resource can affect the survival of a species. Give specific examples.
9. Distinguish between non-density dependent and density dependent factors.

### Chpt 6.

1. Identify two ways in which industrial development has affected ecosystems.
2. Define biodiversity and describe threats to biodiversity.
3. What is the result of increased CFC's?
4. What are possible results of over exposure to UV radiation?
5. Describe how deforestation might contribute to global warming.