

### Study Guide For Module #10

1. a. Ecology - The study of the interactions between living and non-living things.
- b. Population - A group of interbreeding organisms coexisting together.
- c. Community - A group of populations living and interacting in the same area.
- d. Ecosystem - An association of living organisms and their physical environment.
- e. Biome - A group of ecosystems classified by climate and plant life.
- f. Primary Consumer - An organism that eats producers.
- g. Secondary consumer - An organism that eats primary consumers.
- h. Tertiary consumer - An organism that eats secondary consumers.
- i. Ecological Pyramid - A diagram that shows the biomass of organisms at each trophic level.
- j. Biomass - A measure of the total dry mass of organisms within a particular region.
- k. Transpiration - Evaporation of water from the leaves of a plant.
- l. Watershed - An ecosystem where all water runoff drains into a single body of water.
- m. Greenhouse Effect - The process by which certain gases (principally water vapor, carbon dioxide, and methane) trap heat that would otherwise escape the earth and radiate into space.

2. Adding or taking away animals from their ecosystem can throw everything in that ecosystem off.

3. Whale: 1st consumer, 2nd consumer  
Turtle: 1st consumer, 2nd consumer, T  
Zooplankton: 1st consumer, 2nd consumer  
Phytoplankton: Producer  
Meran: 1st consumer, 2nd consumer  
Ocean perch: 2nd consumer, T  
Sea bass: 2nd consumer, T  
Shark: 2nd consumer, T

4. a.) 1st & 2nd      b.) Tertiary & 2nd
5. Clown fish & Sea anemone, Goby & Blind shrimp,  
Oriental Sweetlips & blue-shreak Wrasse
6. The idea of battling for survival
7. The land gets the extra water and runs back into the ocean.
8. Nutrients
9. less water / nutrients on land
10. Respiration, photosynthesis.
11. Respiration, fire, rusting of metals and minerals and ozone formation
12. photosynthesis, ozone destruction, water vapor destruction.
13. Photosynthesis & Dissolving into ocean
14. Respiration, decomposition, fuel-burning and fire.
15. Fuel-burning
16. No.
17. gas is turned into nitrogen-containing molecules. Nitrogen-fixing bacteria.
18. Waste & decaying Remains.