

# Unit 2 Study Guide

Energy Flow (Food chains, Food Webs, Pyramids), The Levels of Biological Organization, Relationships in an Ecosystem (Symbiosis, Predation, Competition) and Population Growth (Exponential Growth, Logistic Growth, Carrying Capacity, Limiting Factors and Human Population)

*You need to know the **vocabulary terms** from the unit vocabulary list that you made into flashcards!!*

- 1) What is the difference between a food chain and a food web? Which model is a more realistic model?
- 2) What is the difference between an autotroph and heterotroph?
- 3) On what trophic level do you find autotrophs? Heterotrophs?
- 4) What is an herbivore? On what trophic level do you find herbivores?
- 5) What is a carnivore? On what trophic level do you find carnivores?
- 6) How would the organisms in a food web be affected if the producers were removed?
- 7) What happens to the amount of energy as it moves through a food chain? Why?
- 8) What percent of energy is stored in an herbivore from the plant that it feeds on?
- 9) What are three types of ecological pyramids? What is the overall trend that these pyramids represent?
- 10) List the levels of biological organization (from smallest to largest). *Be able to define / identify each level.*
- 11) What are the three types of symbiosis, how does each type affect the organisms in the relationship? *Be able to identify each type.*
- 12) What is the difference between a habitat and a niche?
- 13) Draw an exponential graph model. Describe this type of population growth. What is the shape of this graph? Is there a carrying capacity? What populations exhibit this type of population growth?
- 14) Draw a logistic graph model. Describe this type of population growth. What is the shape of this graph? Is there a carrying capacity?
- 15) What is a carrying capacity? Why is there a carrying capacity?
- 16) What is the difference between abiotic and biotic factors. Give examples of each.
- 17) What is the difference between density-dependent and density-independent factors. Give examples of each.