

## Module 10

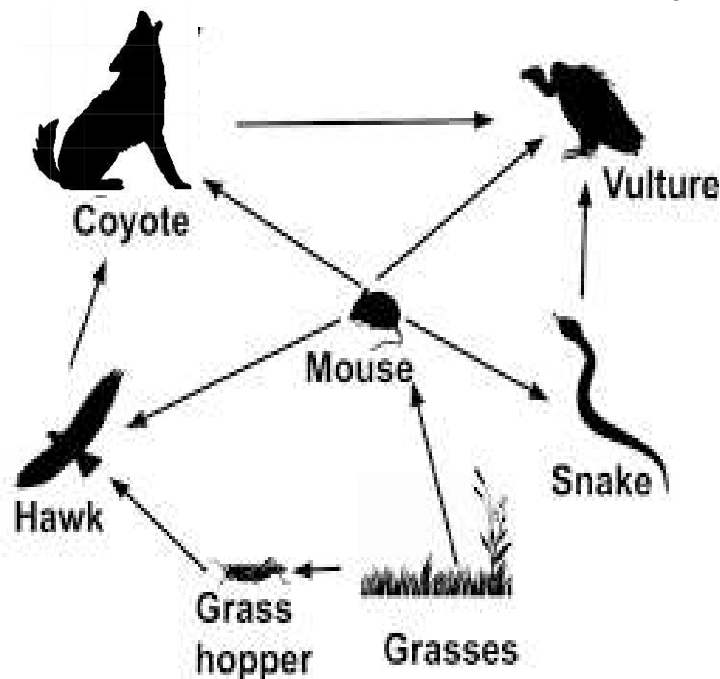
## Biology

Read pages 299 – 309

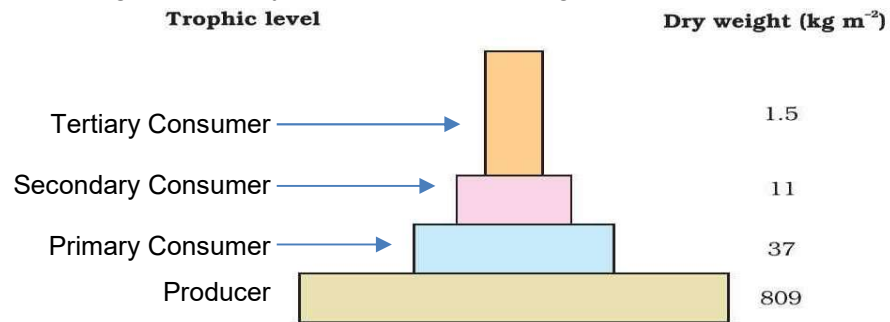
Assignment #1

Write the answers on your own paper,  
not on this sheet.

1. Define the following terms: Write the word you are defining, then the definition.
  - a. Ecology
  - b. Population
  - c. Community
  - d. Ecosystem
  - e. Biome
  - f. Primary consumer
  - g. Secondary consumer
  - h. Tertiary consumer
  - i. Ecological pyramid
  - j. Biomass
2. Name a population in your backyard that you could study.
3. Name two density-dependent factors that can affect a population.
4. Name one density-independent factor that can affect a population.
5. List a community of at least three organisms in your backyard.
6. What does an ecosystem include that a community does not?
7. Around 1983, a person who owned an aquarium set his fish and snails free in the lake in Landa Park. The ram's horn snails enjoyed the lake and their populations soared. Biologists have had to hand-pick the snails out of the lake, year after year. Why don't they just let the snail live in the lake?
8. For the food web shown below, list ALL the trophic levels for each organism.



9. Use the following biomass pyramid for the following questions:



- Which two adjacent trophic levels have the greatest different in biomass?
  - Between which two adjacent levels is the smallest amount of energy wasted?
  - Why does the amount of biomass decrease as you go up a trophic level?
10. List the three new symbiotic relationships discussed in this module. Briefly describe the role of each participant.

## Module 10

## Biology

Read pages 309 – 324 (Green book)

Assignment #2

Write on your own paper, not on this sheet.

1. Define the following terms: Write the word you are defining, then the definition.
  - a. Transpiration
  - b. Watershed
  - c. Greenhouse effect
2. In the water cycle, more water evaporates from the ocean than falls back into the ocean as precipitation. Why doesn't the ocean lose water?
3. What does the water cycle accomplish, besides balancing the water in an ecosystem?
4. What may happen in a watershed if it is deforested?
5. What is the primary way that oxygen is taken from the air?
6. What is the primary way that oxygen is added to the air?
7. Name other ways that oxygen is taken from the air.
8. Name other ways that oxygen is added to the air.
9. Name the ways that carbon dioxide is taken from the air.
10. Name the ways that carbon dioxide is added to the air.
11. What is a "carbon footprint"? (Look it up.)
12. What human activity may be increasing the temperature of the planet?
13. Where is the hole in the ozone layer of the earth? (Look it up.)
14. What has been happening to the hole in the ozone layer? (Look it up.)
15. What is nitrogen fixation? What type of organism performs it?
16. Name two ways that nitrogen is added to the environment.