

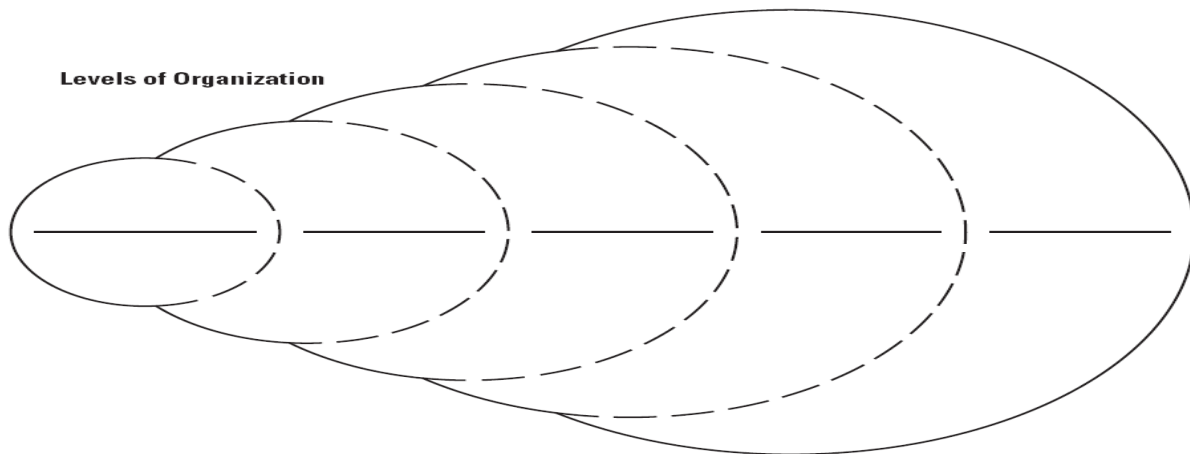


Ecology Review

Main Idea: Ecologists study environments at different levels of organization.
Write a description of each level of organization in the table. Also, provide an example for each level.

Level	Description	Example
1. Organism		
2. Population		
3. Community		
4. Ecosystem		
5. Biosphere		

Fill in the diagram below with the Levels of Organization studied in Ecology. Use the terms from the table above.



Main Idea: An ecosystem includes both abiotic and biotic factors. Producers provide energy for other organisms in an ecosystem.

Complete the following sentences with the correct term from the list below

autotrophs	eating	nonliving	abiotic	living	temperature	producers
moisture	plants	animals	biotic	consumers	heterotrophs	nonliving

- All ecosystems are made up of _____ and _____ components.
- _____ factors are living things, such as _____ or _____.
- _____ factors are nonliving things, such as wind, _____, or _____.
- _____ are organisms that get their energy from _____ resources, meaning they make their own food. These organisms are also called _____.
- _____ are organisms that get their energy by _____ other organisms. These organisms are also called _____.

11. Why are producers so important to an ecosystem?

KEY CONCEPT: Food chains and food webs model the flow of energy in an ecosystem.

Choose the correct term from the box below to fit each description.

carnivore	herbivore	secondary consumer	decomposer	detritivore
omnivore	primary consumer	tertiary consumer	trophic levels	

12. I eat only plants. I am a(n) _____.

13. I eat only other animals. I am a(n) _____.

14. I eat both plants and animals. I am a(n) _____.

15. I eat dead organic matter. I am a(n) _____.

16. I break down organic matter into simpler compounds. I am a(n) _____.

17. I am the first consumer above the producer level. I am a(n) _____.

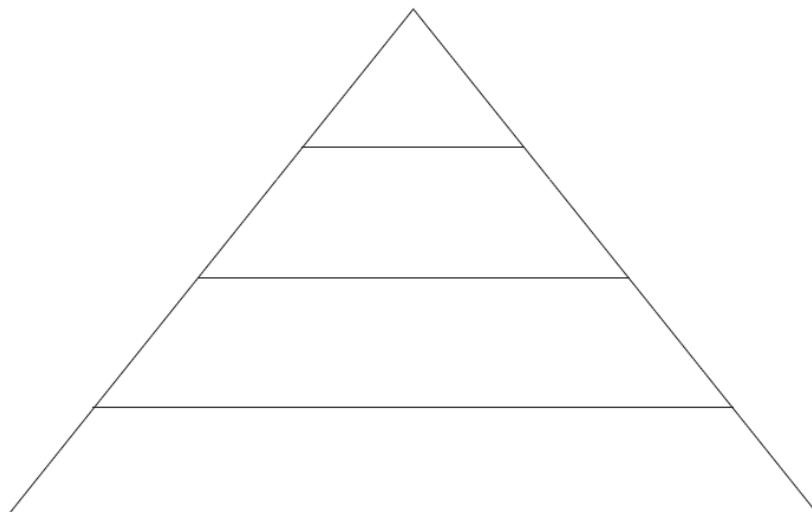
18. I am a carnivore that eats herbivores. I am a(n) _____.

19. I am a carnivore that eats other carnivores. I am a(n) _____.

20. The levels of nourishment in a food chain are called _____.

21. How is a food web different from a food chain?

22. Label the four tiers of the energy pyramid with the correct trophic level (producers, primary consumers, secondary consumers, and tertiary consumers). Choose an ecosystem. Research what types of plants and animals live in your chosen ecosystem. Fill in the energy pyramid with what might exist with that ecosystem.



Energy Pyramid

Food Chain: (mice, hawks, snakes, and grasses)

1. Write the names of the organisms in the food chain in the appropriate levels of the energy pyramid above.
2. If the mice ate all of the grasses, how much energy can they receive if 350,000 Calories of energy are contained in the grasses?
3. If all the mice were eaten by the snakes, how much food energy would be available to the snakes?
4. If all the snakes were eaten by the hawks, how much food energy would be available to the hawks?
5. How much food energy would the hawks use for life processes and lose as heat?
6. Why are there always more producers than consumers in a food chain?

Symbiosis Relationships

Directions: Put the letter M, C, P by the statement that best describes the type of symbiosis.

- _____ 1. A tick living on a dog and taking its blood for food.
- _____ 2. A tapeworm living inside a cow and absorbing the cow's nutrients for food.
- _____ 3. A bird building a nest in a tree.
- _____ 4. Orchids growing in tall canopy trees to get sunlight.
- _____ 5. Bacteria living on human skin.
- _____ 6. Bees use a flower's nectar for food, and they carry a flower's pollen to other flowers, allowing flowers to reproduce.
- _____ 7. Bacteria living in the intestine of a cow to help it break down cellulose (fiber).
- _____ 8. A seventh grader and its pet.
- _____ 9. A lichen, a close relationship between a fungus providing water and place to live

while alga provides food.

_____ 10. Clownfish living in a sea anemone getting food from anemone and keeping sea

anemone clean.

_____ 11. Dutch elm disease has caused mass destruction of elms. The fungus feeds on

materials produced by the elm trees.

_____ 12. Small mites live on your skin, eating dead skin cells.

_____ 13. Crabs try to get a sea anemone to attach to its shell. The crabs drive away seastars

that would eat the anemone and the anemone drives away octopi that would eat the crabs.

_____ 14. A wasp stings a spider and takes it to its nest where it lays an egg on the spider.