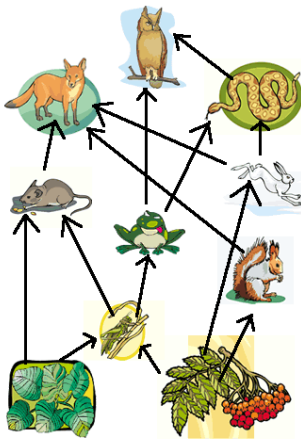


## Ecology Food Web

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. A bird eats a worm. Who is the predator?  
a. the worm  
b. the bird  
c. both the bird and the worm  
d. neither the bird nor the worm
- \_\_\_\_\_ 2. One food web arrow goes from a rabbit to a coyote, inferring that  
a. the coyote is bigger.  
b. the coyote eats the rabbit  
c. the rabbit eats the coyote.  
d. the rabbit is a producer.
- \_\_\_\_\_ 3. What does the arrow between the grasshopper and the frog represent?



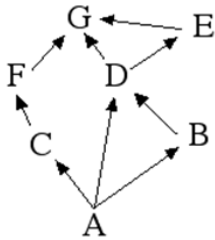
- a. energy flowing from producers to consumers  
b. energy flowing from consumers to producers  
c. energy flowing from the frog to the grasshopper  
d. energy flowing from the grasshopper to the frog
- \_\_\_\_\_ 4. What is an animal that catches and eats another animal called?  
a. prey  
b. predator  
c. producer  
d. herbivore
- \_\_\_\_\_ 5. Animals that eat a variety of meats, fruits, and vegetables are  
a. producers.  
b. carnivores.  
c. omnivores.  
d. herbivores.
- \_\_\_\_\_ 6. Grass that gains energy from the sun is an example of a  
a. consumer.  
b. parasite.  
c. decomposer.  
d. producer.
- \_\_\_\_\_ 7. Bears eat fruits such as berries and animals such as fish. They hibernate in the winter. They give birth to live young. Which of these terms apply to bears?  
a. They are decomposers.  
b. They are at the bottom of the energy  
c. They have a mutualistic relationship with berries.  
d. They are consumers.

pyramid.

- \_\_\_\_\_ 8. Three organisms on a food web have arrows pointing away from them and no arrows pointing toward them. What can you infer about these organisms?
- a. They are omnivores.
  - b. They are herbivores.
  - c. They are decomposers.
  - d. They are producers.
- \_\_\_\_\_ 9. In a food web, arrows point in just one direction because they show
- a. which animal is bigger.
  - b. which animals are related.
  - c. how energy goes to the animal that is eating.
  - d. how energy goes to the animal that is eaten.
- \_\_\_\_\_ 10. If you made a chart showing all the organisms living in the local lake, with arrows drawn between the various organisms showing the direction or pathway of energy flow, what kind of chart would you have made?
- a. energy pyramid
  - b. food chain
  - c. food web
  - d. ecosystem chart
- \_\_\_\_\_ 11. A simple diagram with arrows showing a single pathway of energy flow from grass, to a rabbit, to a fox is
- a. an energy pyramid.
  - b. a food web.
  - c. a food chain.
  - d. a population chart.
- \_\_\_\_\_ 12. Herbivores, carnivores, and omnivores are all
- a. decomposers.
  - b. producers.
  - c. scavengers.
  - d. consumers.
- \_\_\_\_\_ 13. In a marine food chain, small fish eat plankton, big fish eat small fish, and sharks eat big fish. Which organism has the smallest population?
- a. the sharks
  - b. the big fish
  - c. the small fish
  - d. the plankton
- \_\_\_\_\_ 14. Which of the following consumers feeds on dead organisms?
- a. herbivores
  - b. omnivores
  - c. carnivores
  - d. detritivores
- \_\_\_\_\_ 15. What is the primary source of energy in all ecosystems?
- a. plants
  - b. bacteria
  - c. the sun
  - d. producers
- \_\_\_\_\_ 16. Which of the following statements best describes a food web?
- a. Many individual organisms of the same species that live in the same space and that share resources.
  - b. A system that is made up of a community of organisms and their environment.
  - c. A black bear eats fruit and then spreads the fruit seeds through its excretions.
  - d. All life is connected by the transfer of energy among organisms and their environment.
- \_\_\_\_\_ 17. Which food might a first level consumer eat?
- a. fish
  - b. bacteria
  - c. berries
  - d. worms

18. Three organisms on the food web have arrows pointing toward them but no arrows pointing away from them. This is because
- they make their own food.
  - they give energy to others.
  - nothing shown eats them.
  - they need no energy.

19. In the food web, which is the correct flow of energy?



- DCA
- BAF
- ACD
- ACF

20. Virtually all plants are autotrophic. But there are no autotrophic animals or fungi. What can you infer about autotrophic organisms?

- they can move around on their own
- they reproduce slowly
- they are at the top of the food chain
- they can make their own energy

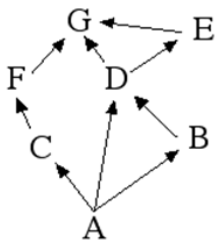
21. If fish in a river begin to die because of pollution, what may happen to a river ecosystem?

- All organisms in the ecosystem will be affected in some way.
- All species of organisms in the ecosystem that rely on fish for food will starve and die.
- The organisms that eat fish will reproduce faster.
- The abiotic factors but not the biotic factors in the ecosystem will change.

22. Organisms that can make their own food from sunlight are called

- decomposers.
- consumers.
- producers.
- carnivores.

23. In the food web, what two organisms are competing for food?

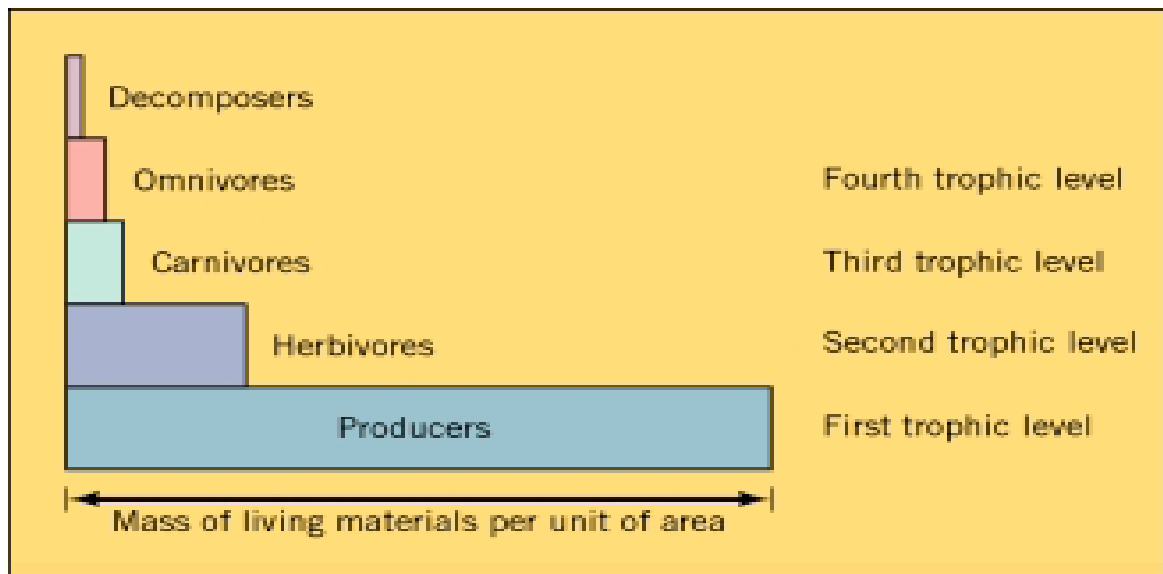


- A and B
- D and F
- A and C
- B and D

24. In an aquarium fish eat the shrimp, and a shark eats the fish. What would happen to the population of shrimp if the shark was removed from the aquarium?

- decrease
- stay the same
- increase
- increase and then decrease

## Short Answer



25.

Analyze (break down) the diagram, then synthesize (create) a general principle or rule that can be applied based on its data.

**Ecology Food Web  
Answer Section**

**MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: B  | PTS: 1 |
| 2. ANS: B  | PTS: 1 |
| 3. ANS: D  | PTS: 1 |
| 4. ANS: B  | PTS: 1 |
| 5. ANS: C  | PTS: 1 |
| 6. ANS: D  | PTS: 1 |
| 7. ANS: D  | PTS: 1 |
| 8. ANS: D  | PTS: 1 |
| 9. ANS: C  | PTS: 1 |
| 10. ANS: C | PTS: 1 |
| 11. ANS: B | PTS: 1 |
| 12. ANS: D | PTS: 1 |
| 13. ANS: A | PTS: 1 |
| 14. ANS: D | PTS: 1 |
| 15. ANS: C | PTS: 1 |
| 16. ANS: D | PTS: 1 |
| 17. ANS: C | PTS: 1 |
| 18. ANS: C | PTS: 1 |
| 19. ANS: D | PTS: 1 |
| 20. ANS: D | PTS: 1 |
| 21. ANS: A | PTS: 1 |
| 22. ANS: C | PTS: 1 |
| 23. ANS: D | PTS: 1 |
| 24. ANS: A | PTS: 1 |

**SHORT ANSWER**

25. ANS:  
the mass of living material within each tropic level decreases and you advance up the food chain.
- PTS: 1