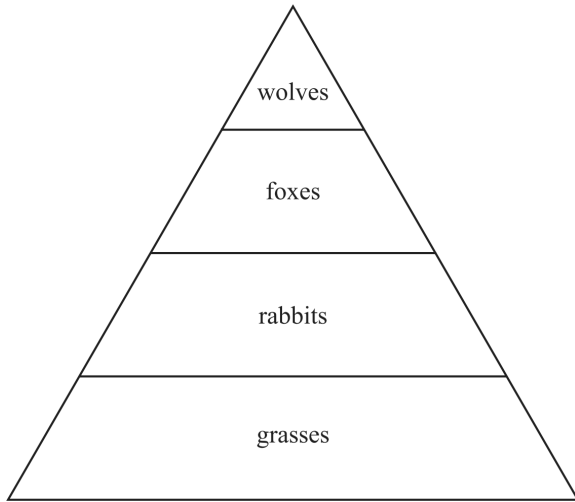


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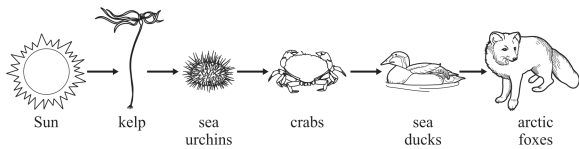
1. The picture below shows an energy pyramid.



What will *most likely* happen to the foxes and the wolves if the rabbits are removed?

- A. The foxes will eat more wolves.
- B. The foxes will eat fewer wolves.
- C. There will be more foxes and wolves.
- D. There will be fewer foxes and wolves.

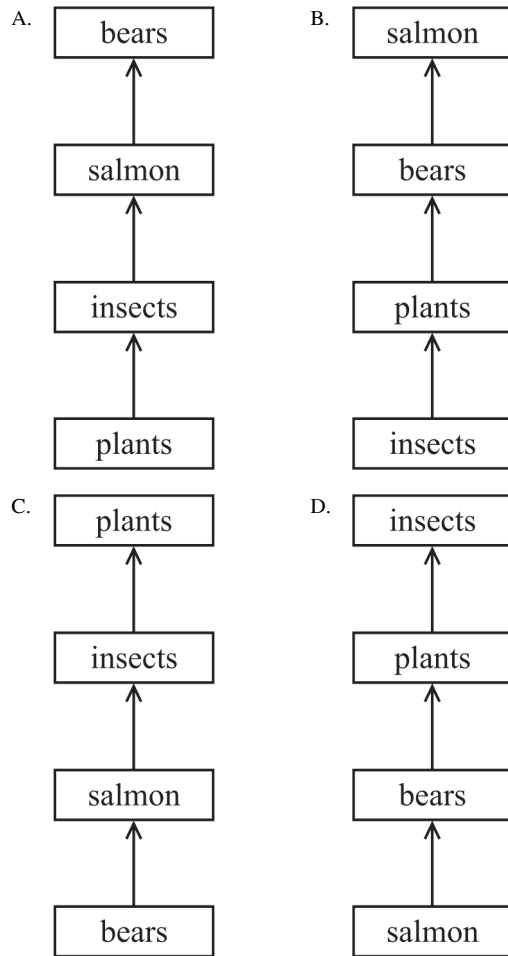
2. The picture below shows an ocean bay food chain.



Sea otters move into the ocean bay. They eat all the sea urchins. This change will cause the

- A. kelp to have less food.
- B. crabs to have more food.
- C. sea ducks to have less food.
- D. arctic foxes to have more food.

3. Which model *correctly* shows energy flow in a food chain?



4. Decomposers are important in the food chain because they

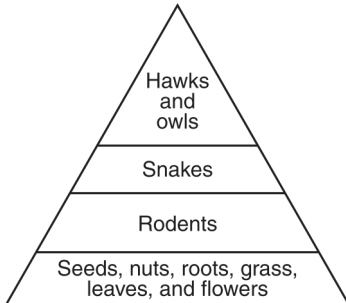
- A. produce their own food using light from the Sun.
- B. stop the flow of energy from one organism to another.
- C. break down dead organisms and recycle nutrients into the soil.
- D. are microscopic and other organisms cannot consume them.

5. The table below contains information about animal diets.

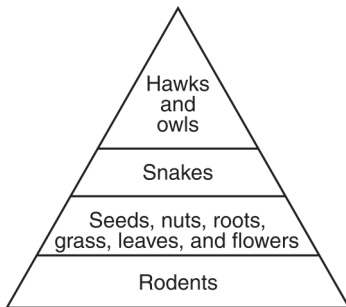
Animals	Diet
Snakes	Squirrels, chipmunks, gophers, and mice
Hawks and owls	Rodents and reptiles
Rodents	Seeds, nuts, roots, grass, leaves, and flowers

Which energy pyramid best represents the data in the table?

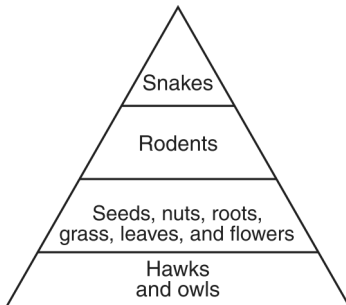
A.



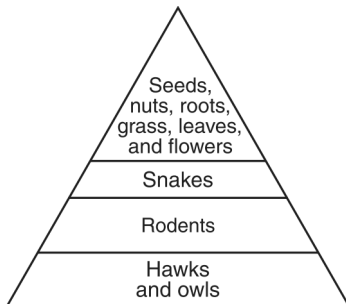
B.



C.



D.



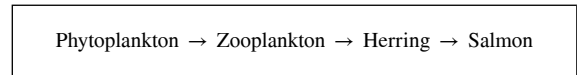
6. Which of the following is an example of organisms becoming dormant?

- A. birds flying south in the winter
- B. plants flowering in the summer
- C. trees losing their leaves in the fall
- D. earthworms living underground all year

7. Which of the following sets of organisms would be found in a wetland ecosystem?

- A. tortoise, lizard, fly
- B. salamander, mosquito, frog
- C. moose, seal, lemming
- D. lion, giraffe, beetle

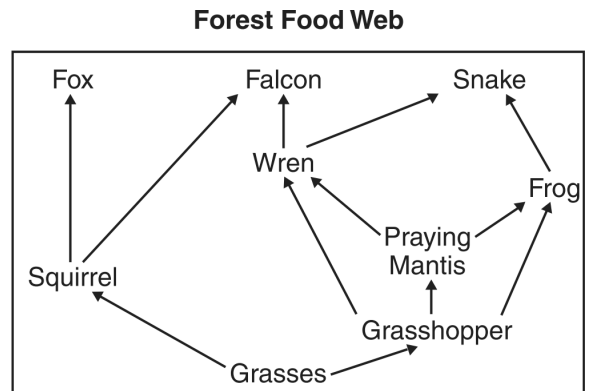
8. The diagram below shows a marine food chain.



The zooplankton in this food chain are

- A. primary producers.
- B. primary consumers.
- C. secondary consumers.
- D. tertiary consumers.

9. A forest-ecosystem food web is shown below.



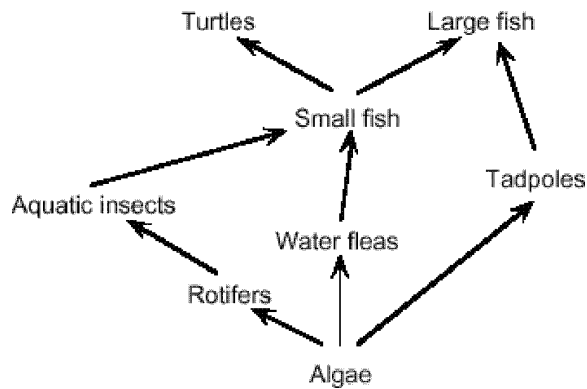
If additional wrens are introduced into this ecosystem, there will most likely be an immediate decrease in the

- A. frog population.
- B. snake population.
- C. falcon population.
- D. grasshopper population.

10. In a pond, the primary producer is a green alga, *Spirogyra*; the primary consumer is the crustacean, *Daphnia*; the secondary consumer is a small fish, the bluegill; and the tertiary consumer is a larger fish, the smallmouth bass. What changes can be expected in the pond if the *Daphnia* are killed with pesticides?

- A. The *Spirogyra* population will probably die.
- B. The bluegill population will probably increase.
- C. The *Daphnia* population will eat something else.
- D. The smallmouth bass population will die.

11. The diagram shows part of an aquatic food web for a stable lake ecosystem in Connecticut.



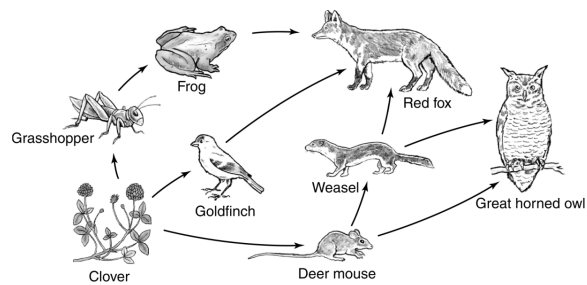
What is the source of energy for the algae?

- A. waves
- B. sunlight
- C. bacteria
- D. rotifers, water fleas and tadpoles

12. The producers at the start of a food chain are

- A. small animals.
- B. predators.
- C. green plants.
- D. insects.

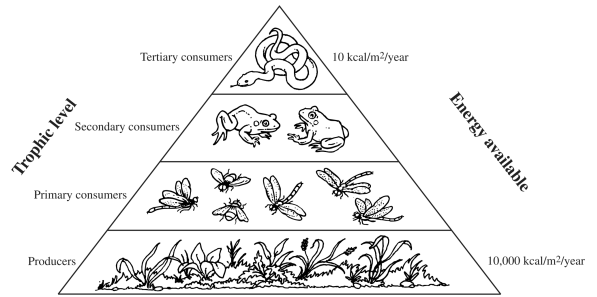
13. Use the food web below to answer the question.



Which of these are not represented in the food web?

- A. producer
- B. primary consumers
- C. secondary consumers
- D. decomposers

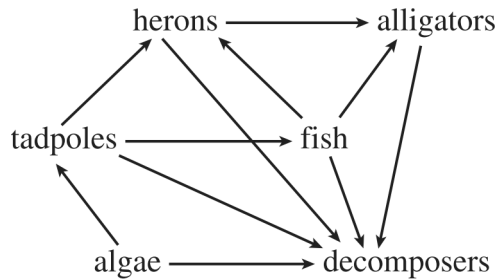
14. The diagram below shows an energy pyramid.



Approximately how much energy is available to the secondary consumers in this energy pyramid?

- A. 10 kcal/m²/year
- B. 100 kcal/m²/year
- C. 1,000 kcal/m²/year
- D. 5,000 kcal/m²/year

15. The diagram below shows a food web.



Which population would probably increase if the tadpole population decreased?

- A. herons
- B. alligators
- C. fish
- D. algae

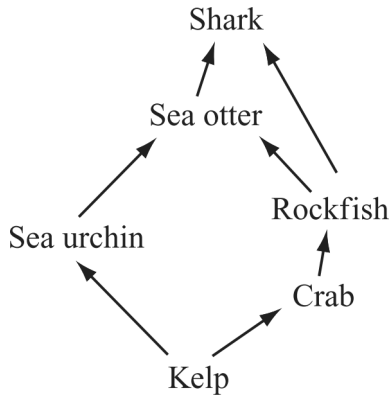
16. Which of the following lists identifies organisms that are producers in food webs?

- A. algae, ferns, sunflowers
- B. mushrooms, bacteria, earthworms
- C. termites, red foxes, shrews
- D. woodpeckers, cardinals, grasshoppers

17. In which of the following ways do producers in an ecosystem obtain energy?

- A. by consuming other producers
- B. by living parasitically on animals
- C. by using sunlight to make sugars
- D. by breaking down dead organisms

18. Part of a food web for a marine kelp forest is shown below.



Which of the following statements correctly describes the transfer of energy that **initially** enters this system?

- A. The sea urchin gets energy from the sea otter.
- B. The shark receives most of the energy that enters the ecosystem.
- C. The crab transfers less energy to the next trophic level than does the rockfish.
- D. The kelp converts energy into a form that can be used by other organisms.

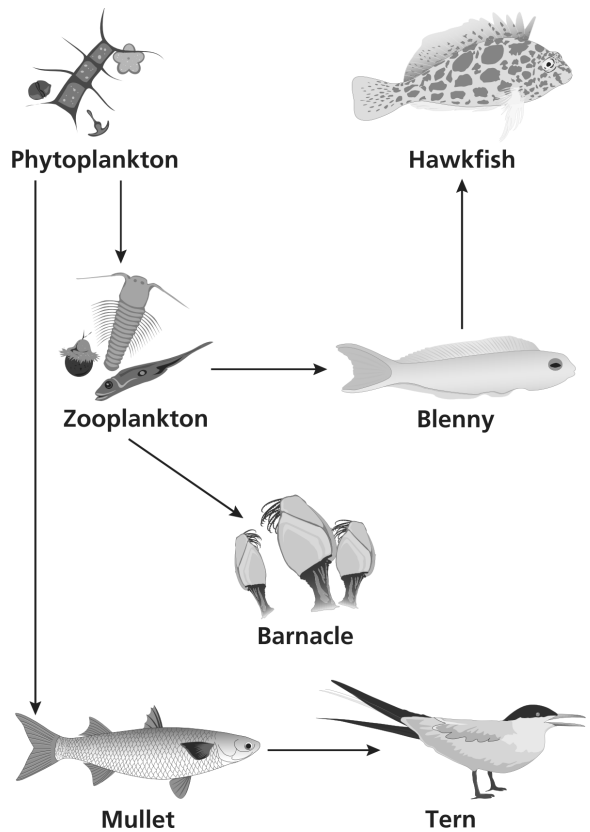
19. Why is a food web *more* useful than a food chain to predict the survival of a population?

- A. Food chains show fewer organisms.
- B. Food webs show more information about the habitats.
- C. Food webs show more predator and prey interactions.
- D. Food chains are limited to relationships between consumers.

20. In a food pyramid, which *best* explains why the number of organisms decreases from one trophic level to the next?

- A. Consumers at the lower level require more energy than the top-level consumers.
- B. Consumers at the top level require more energy than the lower-level consumers.
- C. The consumers are feeding on larger organisms that have less energy.
- D. The consumers are feeding on smaller organisms that have less energy.

21. The following diagram is a marine food web.



Which statement describes what will happen if there is an increase in the population of zooplankton?

- A. The mullets will switch to eating zooplankton since it will be easier to find.
 - B. The blenny population will decrease as the space is taken up by the zooplankton.
 - C. The barnacle population will increase because there will be more of its food supply.
 - D. The phytoplankton population will increase to feed the increasing number of zooplankton.
22. Which of the following receives the largest amount of its energy *directly* from the sun?
- A. Carrots
 - B. Eggs
 - C. Wolves
 - D. Chickens
23. Which *best* determines the number of wolves that can live in an area?
- A. the amount of snow in the area each year
 - B. the number of birds that live in the area
 - C. the number of trees in the area
 - D. the amount of food available in the area