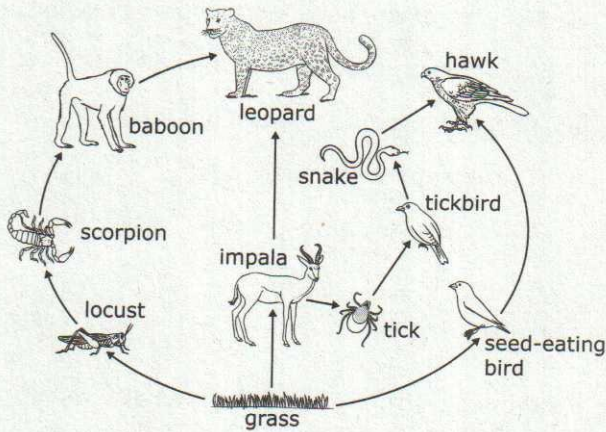


Unit Test

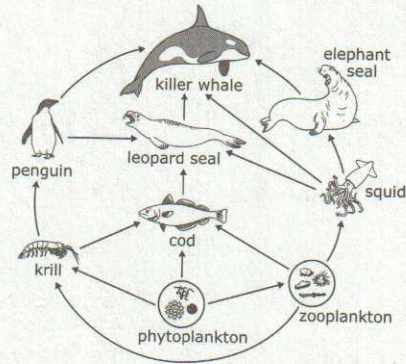
Use the terrestrial ecosystem food web to answer questions 1-3.



- Leopards eat baboons and impalas in a terrestrial ecosystem. What prediction can be made if the baboon population begins to decrease because of disease? **(8.2E)**
 - The leopard population will increase.
 - The hawk population will increase.
 - The impala population will decrease.
 - The scorpion population will decrease.
- What relationship exists between seed-eating birds and grass?
 - Predator/host
 - Consumer/producer
 - Parasite/host
 - Consumer/consumer
- What organism represents a parasite in the terrestrial ecosystem food web?

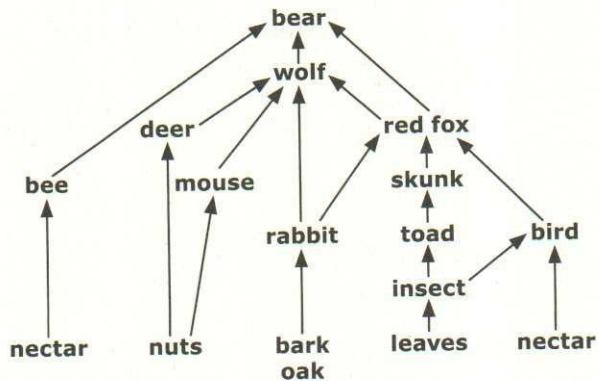
(A) Baboon	(C) Locust
(B) Snake	(D) Tick

- In the marine food web, which organisms are considered predators to more than one organism?



- Krill and phytoplankton
 - Squid and zooplankton
 - Leopard seal and cod
 - Penguin and elephant seal
- The Center for Disease Control publishes articles explaining the causes of seasonal West Nile virus. Research proves mosquitoes in freshwater ecosystems spread the disease to humans and other organisms. How do mosquitoes transmit the West Nile virus to other organisms?
 - Mosquitoes transmit the virus when they land on the skin of an organism.
 - Mosquitoes transmit the virus as parasites which feed on the blood of host organisms and inject the virus during feeding.
 - Mosquitoes transmit the virus by preying on organisms and spreading the virus on contact.
 - Mosquitoes transmit the virus as hosts who feed on the blood of organisms and inject the virus during feeding.
 - Predators and parasites both cause harm to other organisms. What is a difference between predators and parasites?
 - Predators only harm producers, while parasites only harm consumers.
 - Predators harm their young, while parasites do not.
 - Predators only kill at night, while parasites only kill during the day.
 - Predators eat organisms, while parasites live off of organisms.

Use the food web and your knowledge of science to answer questions 1–3.

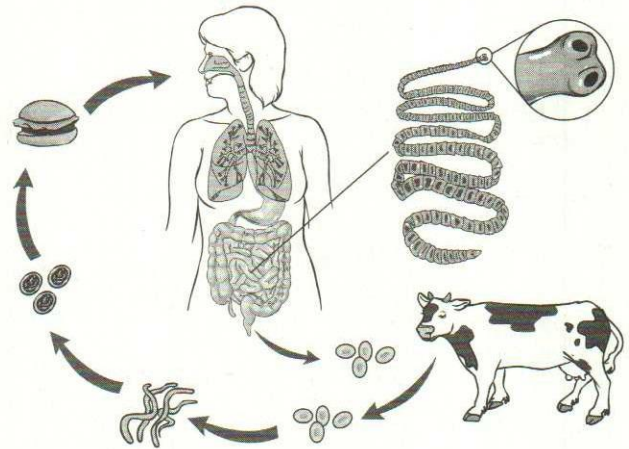


7. Which relationship in the food web above is NOT predator/prey?
- (A) Wolf/deer
 - (B) Red fox/rabbit
 - (C) Bird/insect
 - (D) Bear/mouse
8. A parasite enters the food web and causes disease in the toad population. What impact could this have on the skunk population over time?
- (F) Some skunks die.
 - (G) Some skunks move.
 - (H) Some skunks adapt.
 - (J) All of the above
9. The mouse population receives energy from —
- (A) nuts
 - (B) wolf
 - (C) nectar
 - (D) deer

10. A science student observes the interaction of crickets and ants outside the school. Ants surround, cover, and eat crickets. What relationship exists between ants and crickets?
- (F) Crickets—predator, ants—prey
 - (G) Crickets—producer, ants—consumer
 - (H) Crickets—parasite, ants—host
 - (J) Crickets—prey, ants—predator

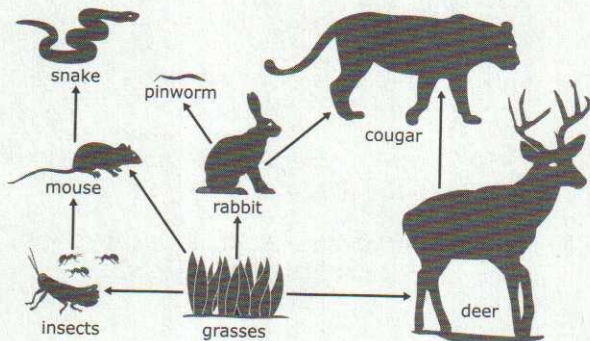
11. Rabbits eat lettuce and carrots. What type of relationship do carrots and rabbits have?
- (A) Predator/prey
 - (B) Parasite/host
 - (C) Producer/consumer
 - (D) Predator/host

12. Which relationship best describes the interaction between a tapeworm and a human intestine?



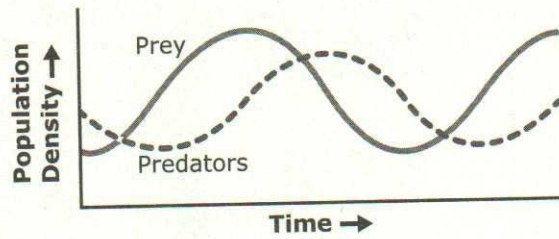
- (F) Producer and consumer
- (G) Predator and prey
- (H) Parasite and host
- (J) Biotic and abiotic

Use the food web below and your knowledge of science to answer questions 7–10.



13. Which statement best describes relationships that exist in the food web? **(8.2E)**
- Ⓐ There is always a larger population of predators that prey on animals in the food web.
 - Ⓑ Consumers can live independently of producers, but prey animals must have predators to survive.
 - Ⓒ Parasites can live independently of hosts, but consumers must have producers to survive.
 - Ⓓ Producers can live independently of consumers, but predators must have prey to survive.
14. Food webs model the flow of energy through an ecosystem. What is a limitation of this food web? **(8.3C)**
- Ⓕ The model does not show consumers and producers.
 - Ⓖ The model does not show animals that receive energy from multiple sources.
 - Ⓗ The model does not show the ultimate source of energy in the food web, the Sun.
 - Ⓙ The model does not show tertiary consumers.
15. A group of students designs predator/prey models. Which model accurately represents this relationship? **(8.3B)**
- Ⓐ Paper mache replica of grasshoppers living in grass
 - Ⓑ Drawing of a mouse hiding in the grass
 - Ⓒ Diorama of a cougar chasing a deer
 - Ⓓ Shoebox ecosystem with deer and rabbits
16. Hawks are predators to small organisms such as snakes, rabbits, and mice. What is a possible result of adding a hawk to this ecosystem? **(8.2E)**
- Ⓕ The rabbit population will increase.
 - Ⓖ The grass population will increase.
 - Ⓗ The cougar population will increase.
 - Ⓙ All of the above

17. Which statement could be supported by the graph? **(8.2E)**



- Ⓐ The number of hawks will decrease in response to a decrease in the mice population.
- Ⓑ The number of grasshoppers will increase in response to an increase in the bird population.
- Ⓒ The number of frogs will decrease in response to an increase in the fly population.
- Ⓓ The number of coyotes will decrease in response to an increase in the rabbit population.

18. A student wants to list the producer/consumer and predator/prey relationships in an ecosystem. What would be the best way to organize these interactions? **(8.2C)**

- Ⓕ Food chain
- Ⓖ Food web
- Ⓗ Outline
- Ⓙ None of the above

19. Students are given cards containing information about several predator/prey and parasite/host relationships. Which question could be the focus of a comparative investigation? **(8.2A)**

- Ⓐ How does natural selection influence predator/prey relationships?
- Ⓑ How do predators and hosts interact with abiotic factors?
- Ⓒ In what ways is the parasite/host relationship similar to the predator/prey relationship?
- Ⓓ What effect do parasite/host relationships have on populations of producers?

In groups, students create dioramas to depict freshwater ecosystems. One of the dioramas is pictured.



20. What is an advantage of using dioramas to study ecosystems? **(8.3C)**

- Ⓕ Dioramas are accurate tools that measure environmental changes.
- Ⓖ Dioramas provide information about organism interactions within an ecosystem.
- Ⓗ Dioramas are accurate tools for collecting data about organism interactions.
- Ⓙ Dioramas provide information about environmental changes.