

26—Food Chains and Food Webs

A ¹Every organism needs food. ²Food provides energy, and an organism will die if it does not get enough energy. ³Plants get energy from sunlight and use it to make their food. ⁴Animals get their energy by eating plants or by eating animals that eat plants.

B ⁵Because plants make their own food, they are called food **producers**. ⁶Animals cannot produce food—they must *consume* plants or other animals to get food. ⁷Animals are called **consumers**.

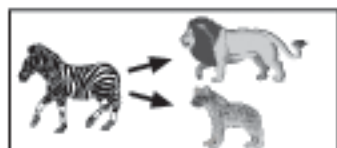
C ⁸Without producers, consumers would not live long. ⁹That's because animals eat plants or other animals that eat plants. ¹⁰If plants disappeared, animals would run out of food and die.

D ¹¹A special type of diagram is used to show what-eats-what in an ecosystem. ¹²This diagram is called a **food chain**. ¹³A food chain is a kind of flow chart.

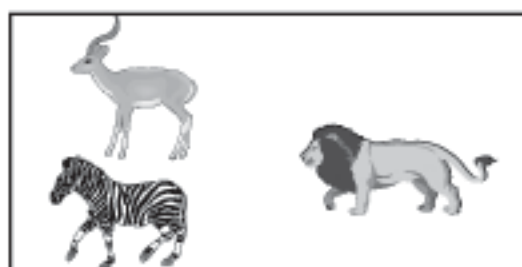


E ¹⁴In a food chain, each organism is called a link. ¹⁵Arrows show the direction energy flows between links. ¹⁶Each arrow means "is eaten by." ¹⁷For example, → → means "grass is eaten by a zebra."

F ¹⁸Different animals may eat the same kind of consumer.



G ¹⁹On the other hand, one kind of animal may eat more than one kind of consumer. ²⁰A lion eats both zebra and antelope. ²¹Where would you draw two arrows to show the flow of energy in the flow chart below?

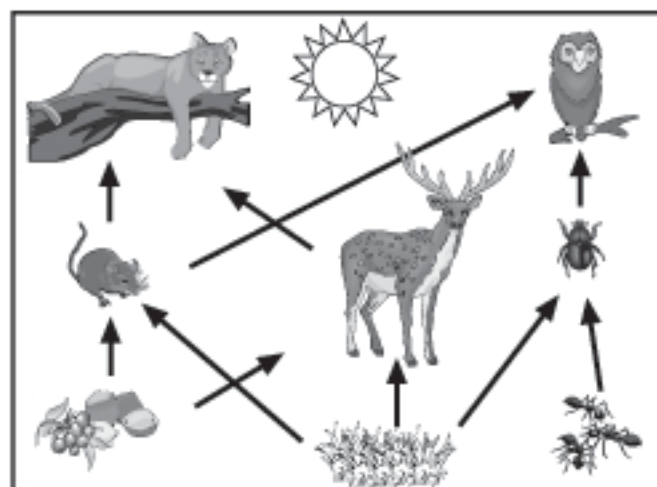


H ²²It is easier to use names instead of drawing pictures in a flow chart. ²³How would you read this flow chart?



Grass Zebra Lion

I ²⁴A single food chain does not tell how all the organisms in an ecosystem relate to one another. ²⁵We can learn a lot about an ecosystem by putting several food chains in one diagram. ²⁶A diagram that combines more than one food chain is called a **food web**. ²⁷Think about the food web below.



1. For each statement, circle T or F for true or false. In the blanks, write the number(s) of the SENTENCE(s) that gives the best evidence for your answer.

- An animal can be a producer. T F ____
- A mouse is a consumer. T F ____
- Producers get energy from the sun. T F ____
- Consumers can survive without producers. T F ____

2. What is the most likely meaning of *consume* as it is used in sentence 6?

- change into
- take in
- feed
- become

3. Why is the sun part of a food chain? Use complete sentences to explain your answer.

Write the number of the sentence that gives the best evidence for your answer. ____

4. If plants disappeared, could animals continue to survive? ____

Use complete sentences to explain why or why not.

5. Using the food web in the lesson, complete the following food chains of the owl and the cougar.



6. Write the names of the following organisms in the correct order in the flow chart below: fish, sea grass, shark, and shrimp.



7. Look again at the food web in the lesson. Then complete the diagram below by adding names and connecting them with arrows.

