

Prove it!

As a scientist, you need to be able to read scientific text and find the important information. Let's do a review of what you've learned about food chains and food webs.

Living things can be divided into many groups, including producers, consumers, and decomposers. Producers are living things that produce their own food. Plants, for example, are producers that use the sun and the process of photosynthesis to make their food.

Consumers are living things that eat other living things. Consumers can be grouped into herbivores, carnivores, and omnivores.

All living things rely on each other for food. A food chain shows this relationship and how energy in the form of food transfers from one living thing to another. Here is an example: A plant makes its own food by using energy from the sun. Caterpillars eat plants, small birds eat caterpillars, and other animals such as cats hunt small birds. In this way, energy from the sun is transferred all the way up the food chain to the cat.

Remember, a predator is a living thing that hunts animals, and prey is an animal that is hunted. An animal can be both a predator and prey. In the food chain mentioned above, caterpillars are prey for small birds, and small birds are prey for cats. While cats are predators, they may be hunted by even larger predators, like bears.

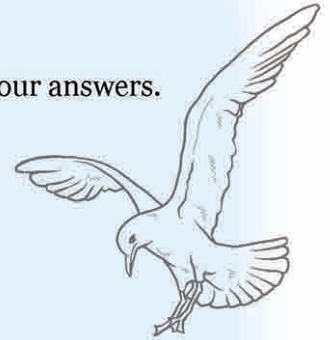
A food web is a group of food chains that are connected. Imagine the ocean: Plankton use sunlight to produce food. Krill eat plankton. Animals like fish, seals, penguins, and certain whales feed on krill. Seals and penguins both eat fish, but the seals also eat the penguins. Sharks and killer whales eat both seals and penguins. In this food web, killer whales are the top of the food chain because they have no natural predators.

A food web is a complex system that needs balance. For example, if a predatory animal dies out, the population of the animals it preys on would increase. The overpopulated prey might eat up all the producers, leaving the landscape barren and lifeless. If certain prey becomes endangered or extinct, its predators might not have enough food and their numbers would also fall. Humans have a huge impact on food webs. Humans are responsible for pollution, habitat destruction, pesticide use, and overfishing, all of which can weaken or destroy food webs.



Prove it!

Answer the questions and write down the sentences from the text that support your answers. Remember to use quotation marks!



1. How do plants make their own food? _____

Which sentence supports your answer?

2. What are consumers? _____

Which sentence supports your answer?

3. What does a food chain show? _____

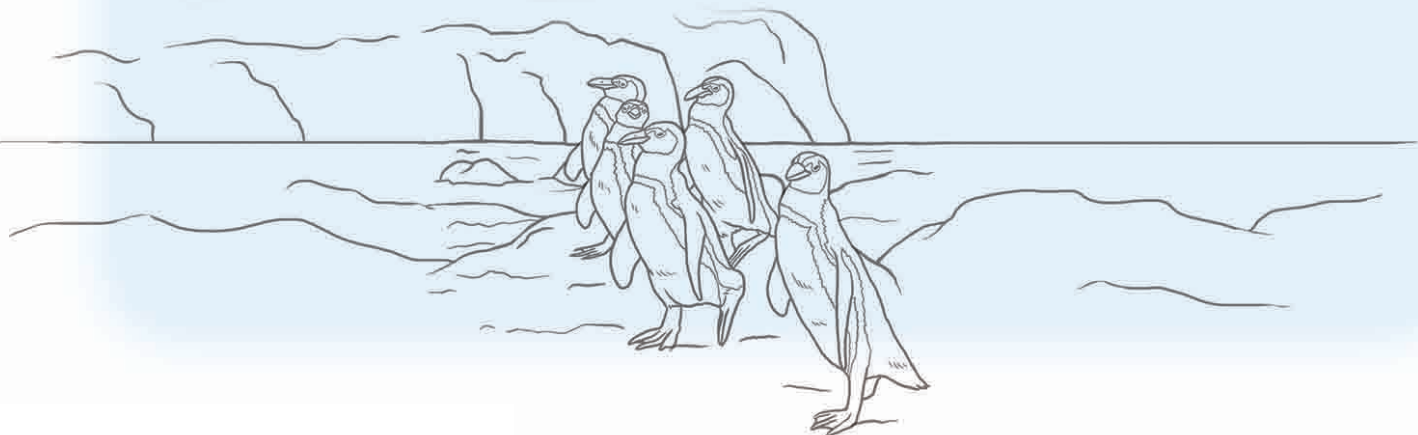
Which sentence supports your answer?

4. What is a food web? _____

Which sentence supports your answer?

5. What happens if a type of predator dies out? _____

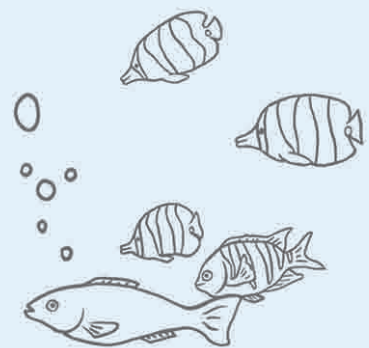
Which sentence supports your answer?



Prove it!

The main idea tells you what the text is all about. Sometimes a text has more than one main idea. This is especially true in science when you are often given a lot of information at once. Put an X next to the main ideas. Make sure it is a main idea that shows the big picture and not just a supporting detail.

1. All living things are divided up into many different groups.
2. A producer can make its own food.
3. All living things rely on each other for food and energy.
4. A food web is a group of connected food chains.
5. Adult killer whales are at the top of their food web.
6. Balance in a food web is very important.
7. Caterpillars are prey for small birds, and small birds are prey for cats.



Review

Directions: Put all your knowledge to the test. Circle the correct answer.



1. What two major elements make up most food webs?
 - a. The sun and producers
 - b. Producers and consumers
 - c. Carnivores and herbivores
 - d. Decomposers and omnivores

2. Humans can cause an imbalance in the food chain.
 - a. True
 - b. False

3. Why are decomposers important?
 - a. Because without them there would be a lot of dead plants and animals.
 - b. Because consumers depend on them for food.
 - c. Because producers depend on them for food.
 - d. None of the above.

4. People are...
 - a. Omnivores
 - b. Carnivores
 - c. Herbivores
 - d. Decomposers

5. How do plants grow?
 - a. By absorbing nutrients from consumers.
 - b. By being at the top of the food chain.
 - c. Through photosynthesis.
 - d. Plants do not need to grow because they are producers.

6. A cow is a carnivore.
 - a. True
 - b. False

7. A lion is at the top of its food chain.
 - a. True
 - b. False

8. The sun is the ultimate source of energy for all living things.
 - a. True
 - b. False

9. An animal is either a predator or a prey, not both.
 - a. True
 - b. False

10. What can weaken or destroy food webs?
 - a. Pollution
 - b. Habitat destruction
 - c. Overfishing
 - d. All of the above

