

Cycle of Life Study Guide

1. Are plants always at the bottom of the food chain?
Yes.
2. You learned that plants are considered producers in a food chain and animals are considered consumers. What is the difference between these roles?
Producers get their energy by making their own food from their surroundings. Consumers get their energy by consuming food from a plant or animal. Therefore, a consumer cannot produce its own food.
3. How do plants or producers make their own food?
They make their food through the process of photosynthesis. For this process to occur, plants need water from the soil, carbon dioxide from the air, and energy gained from sunlight.
4. What is photosynthesis?
It is the process by which plants use energy from the sun, water, and carbon dioxide to produce food.
5. How do plants grow? How do animals grow?
Plants grow from the food they make. Animals grow from the organisms they eat.
6. What is the source of energy for plants?
The sun is the source of energy.
7. What are the sources of energy and thus growth for animals?
Plants and animals are the sources of energy.
8. Food chains almost always start with _____?
A green plant.
9. What is a food chain?
It is a number of organisms that are linked together by what they eat.
10. What is the importance of a food chain?
It is where organisms at all levels get the nourishment they need to survive.
11. Observe the following food chain:

plant plankton → crawdads → little fish → big fish → bears
 - a. What would happen if the bears were extinct?
The population of large fish would increase causing their food supply to dwindle, thus causing a disruption in the food chain.

b. What would happen if all the shrimp were removed from the lake?

The population of fish would decrease, thus causing the bears to go elsewhere for food.

12. If you take one item out of a food chain, how does this affect all other plants or animals in a food chain?

Taking one item out of a food chain can affect the ability of the other organisms to survive in that food chain.

13. What is a food web?

A food web is many food chains that are linked together and to their environments.

14. What four major elements compose a food web?

The sun, producers, consumers, and decomposers make a food web.

15. Can humans cause an imbalance in the food chain?

Yes, one example would be if hunters killed all the deer. Another example would be fish being killed by a pollutant discarded from a factory.

16. Are people herbivores, carnivores, or omnivores?

Most people are omnivores. Some people, like vegans, are herbivores.

17. What is important about decomposers, such as bacteria and fungi?

They break down dead animals and plants into reusable elements and recycle nutrients back into the air or soil.

18. What would happen if the sun didn't exist?

Everything would eventually die.