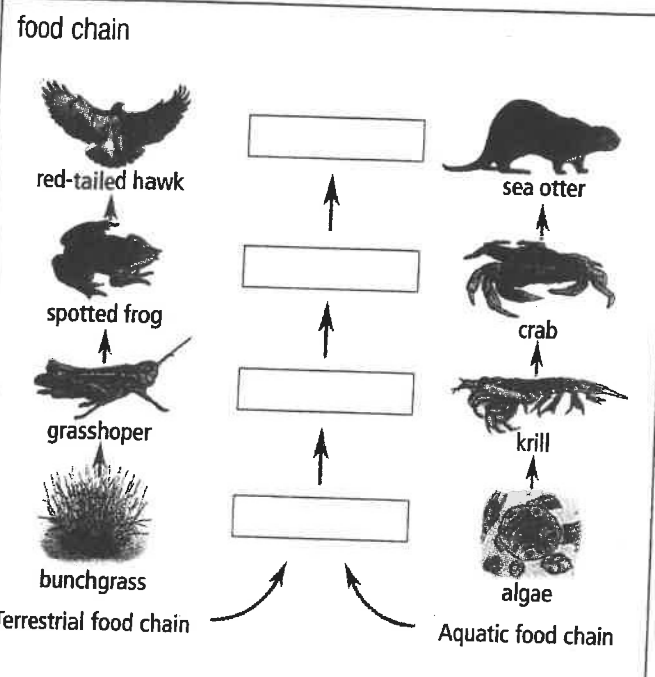
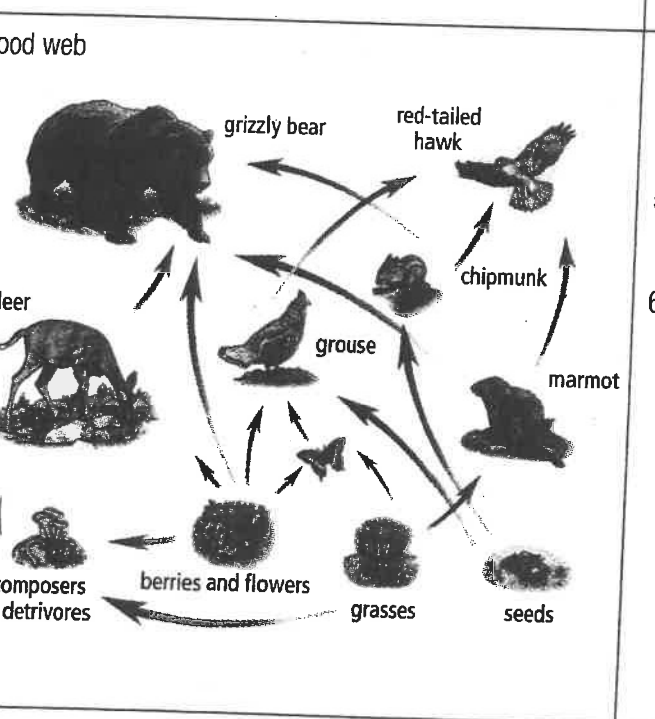


Use with textbook pages 60–64.

Food chains, food webs, and food pyramids

Use the diagrams to help you answer the questions.

Scientific model	Questions
<p>food chain</p>  <p>The diagram shows two food chains. On the left is a 'Terrestrial food chain' with four levels: bunchgrass at the bottom, then grasshopper, spotted frog, and red-tailed hawk at the top. On the right is an 'Aquatic food chain' with four levels: algae at the bottom, then krill, crab, and sea otter at the top. In the center, there are four empty rectangular boxes, each with an upward-pointing arrow from the box below it, representing trophic levels for both chains.</p>	<ol style="list-style-type: none"> 1. What plants or animals are the primary producers in this food chain? _____ 2. What trophic level do the frogs and crabs belong to? _____ 3. What do tertiary consumers feed on to obtain energy? _____
<p>food web</p>  <p>The diagram shows a food web with various organisms. At the bottom are 'berries and flowers', 'grasses', and 'seeds'. Arrows point from these to 'decomposers and detritivores', 'grouse', 'chipmunk', and 'marmot'. From 'grouse', arrows point to 'deer' and 'grizzly bear'. From 'chipmunk', an arrow points to 'red-tailed hawk'. From 'marmot', an arrow points to 'red-tailed hawk'. From 'deer', an arrow points to 'grizzly bear'. From 'grizzly bear', an arrow points to 'red-tailed hawk'.</p>	<ol style="list-style-type: none"> 4. What term is used to describe a chipmunk that eats seeds or fruit? _____ 5. What kind of consumers do omnivores eat? _____ 6. Give two examples of detritivores. _____ _____

Use with textbook pages 56–64.

Energy flow

Vocabulary

biodegradation
biomass
consumer
decomposers
decomposition
energy flow
food chains
food pyramids

food webs
photosynthesis
primary consumers
primary producers
secondary consumers
tertiary consumers
trophic

Use terms in the vocabulary box to fill in the blanks. Use each term only once.

- _____ refers to the total mass of living plants, animals, fungi, and bacteria in a given area.
- The flow of energy from an ecosystem to an organism and from one organism to another is called _____.
- Plants are called producers because they “produce” food in the form of carbohydrates during _____.
- An insect, such as a bee, that feeds on a plant is called a _____.
- _____ is the breaking down of organic wastes and dead organisms.
- The action of living organisms, such as bacteria, to break down organic matter is called _____.
- _____ change waste and dead organisms into usable nutrients.
- _____ are models that show the flow of energy from plant to animal and from animal to animal. Each step is called a _____ level.
- Plants and phytoplankton, such as algae, are at the first trophic level and are referred to as _____.
- _____ obtain their energy from primary producers.
_____ obtain their energy by eating primary consumers.
- In the fourth trophic level are _____ that feed on secondary consumers to obtain energy.
- _____ are models of the feeding relationships within an ecosystem.
_____ show the loss of energy from one trophic level to another.