

What are ecosystems, and why do we care about them?

1. Ecosystems are about c_____.

- E_____ is a branch of science that studies the relationships between living things and the environment.
- An e_____ is a scientist who studies how living things interact with each other and with everything else in the environment.

2. Ecosystems are made up of biotic and abiotic parts that i_____.

- B_____ (living) parts of ecosystems might eat each other, defend themselves from each other, and compete with for living, space, mates, and food.
- A_____ (nonliving) parts of the ecosystem help meet the basic needs of the biotic parts such as water and nutrients. Some examples of abiotic parts are the following: water, air, sunlight, temperature, soil, carbon dioxide, etc.

3. Interactions between terrestrial and aquatic ecosystems keep all ecosystems h_____.

- A t_____ (*Terra* means land or earth) ecosystem is an ecosystem that is based mostly or totally on l_____. Examples are a forest, a desert, an ant colony, and a city.
- A_____ (*Aqua* means water) ecosystem is an ecosystem that is based mostly or totally in w_____. Examples are a pond, a lake, a river, and an ocean.

Homework (Practice & Homework Book): pages 10, 11, 13

Name _____

Date _____

What are ecosystems and why do we care about them?

Textbook pages 8–17

Before You Read

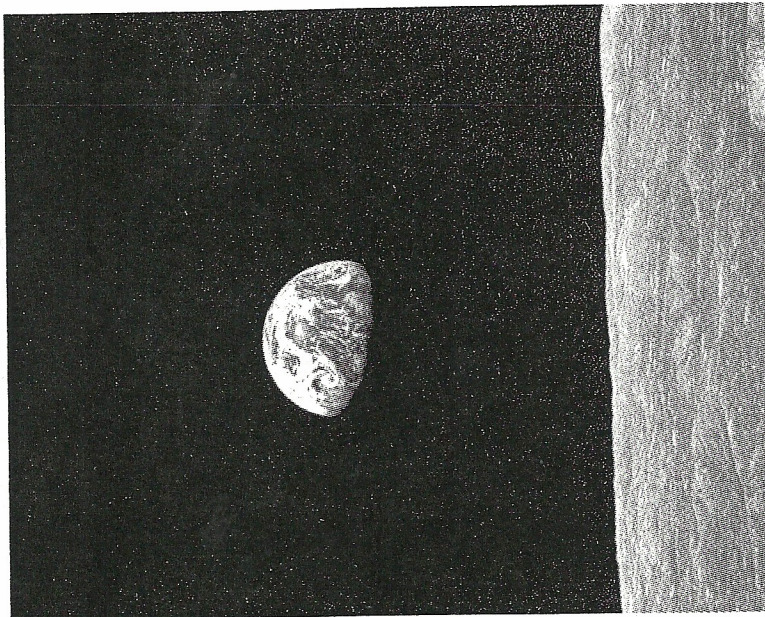
What do you think of when you hear or read the term ecosystem? What is an ecosystem? Record your thoughts on the lines below.

Reading Check

1. What are the two main components of an ecosystem?

Reading Check

2. What are two changes that could affect the balance in an aquatic environment?



What is ecology?

Ecology is a science that tries to explain the connections between everything on Earth. Scientists called ecologists study how living things interact with each other and with everything in their environment.

What is an ecosystem?

An **ecosystem** is all of the non-living and living parts of a certain place. In an ecosystem, **abiotic** parts, such as oxygen, water, nutrients, light and soil, support the life functions of **biotic** components, such as plants, animals, and micro-organisms. Ecosystems can be small. Examples of small ecosystems include a pond or a spruce tree. Ecosystems also can be large. Examples of large ecosystems include an ocean and even the whole Earth.

Name _____

Date _____

**Cloze
Activity**
Topic 1.1

Use with textbook pages 8–17.

Ecosystems and Ecology

Vocabulary	
abiotic	ecosystem
aquatic	environment
balance	healthy
biotic	interact
ecology	terrestrial

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

- _____ is a science that tries to explain the connections between everything on Earth.
- Ecologists study how living things _____ with each other and with everything else in their _____.
- A pond, a forest, a desert, an ocean, a human body, and Earth itself are examples of an _____.
- The living things such as trees, micro-organisms, and animals that live in a forest are the _____ parts of the ecosystem.
- All of the non-living things such as soil, water, and nutrients found in a forest are the _____ parts of the ecosystem.
- An ant colony and a city are both examples of a land-based, or _____, ecosystem.
- A river and an ocean are both examples of a water-based, or _____, ecosystem.
- The balance between abiotic and biotic parts of an ecosystem keep the ecosystem _____.
- Human activities such as cutting down a forest near a stream can upset the _____ in an ecosystem.

Name _____

Date _____

**Applying
Knowledge**
Topic 1.1

Use with textbook pages 12–13.

Abiotic and biotic parts of an ecosystem

This photograph represents a typical ecosystem found in Ontario. Examine the photograph and answer the questions below.



1. List at least three abiotic components of this ecosystem.

2. List at least three biotic components of this ecosystem.

3. Give two examples that illustrate interactions that occur between the abiotic and biotic parts of this ecosystem.

4. Suggest a human activity that could upset the balance in this ecosystem. Explain your answer.

Name _____

Date _____

Assessment
Topic 1.1

What are ecosystems and why do we care about them?

Use with textbook pages 8–17.

Match each Term on the left with the best Descriptor on the right. Each Descriptor may be used only once.

Term	Descriptor
1. _____ abiotic	A. means water
2. _____ aqua	B. a land-based ecosystem
3. _____ aquatic ecosystem	C. a system that is made up of all the interacting biotic and abiotic parts of a certain place
4. _____ biotic	D. all the living things in an ecosystem
5. _____ ecologist	E. means land or earth
6. _____ ecosystem	F. all the non-living things in an ecosystem
7. _____ terra	G. a water-based ecosystem
8. _____ terrestrial ecosystem	H. a scientist who studies the connections between everything on Earth

9. List three basic things for a spruce tree needs to survive.

10. What are the factors that contribute to the size and shape of an ecosystem?

11. What is the difference between the terms abiotic and biotic?

12. What must occur in order for an ecosystem to stay healthy?
