

# Build Concepts

## OBJECTIVE

Students will learn that the living and nonliving things in an area make up an ecosystem.

## Introduce

- Invite students to name some living things in the block where the school is located, such as trees, pigeons, people, and the like.
- Then have them name some nonliving things, such as the building, the street, the air, and so on.
- Direct students to the picture on page 64, and tell them that like the school block, this area is an ecosystem.

## Oral Language

**Seven Steps** Use the seven-step model on page T-38 to build background on the academic content words. Have students practice their oral language skills with partners or groups in Step 6.

**Vocabulary** Introduce vocabulary words related to the concept.

Academic Content Words	ecosystem, organisms, population, community
On-the-Spot Words	water, rocks, air, salmon, bears, plants
Academic Process Words	kind, made of, other

## Monitor Progress

Use Master T-24 and class discussion to monitor student progress. Use the rubrics on page T-25 as a resource.

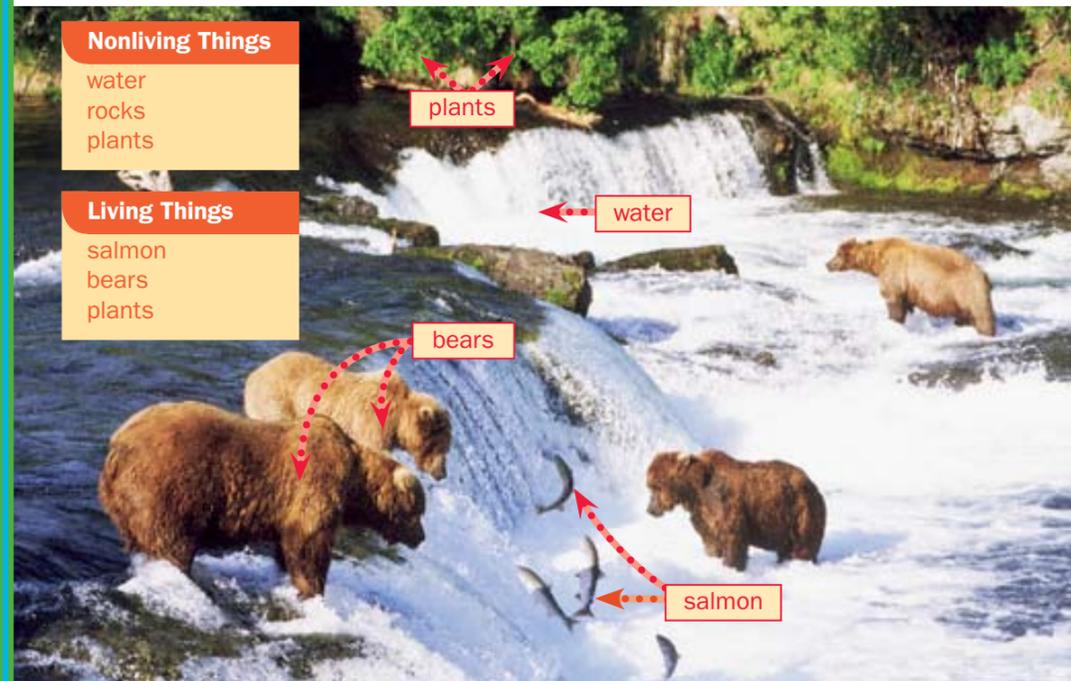
# Parts of an Ecosystem

## ESSENTIAL IDEA

Nonliving and living things make up an ecosystem.

An **ecosystem** is all of the nonliving and living things in a given area.

**Organisms** are living things in an ecosystem.



## Language-Level Differentiation

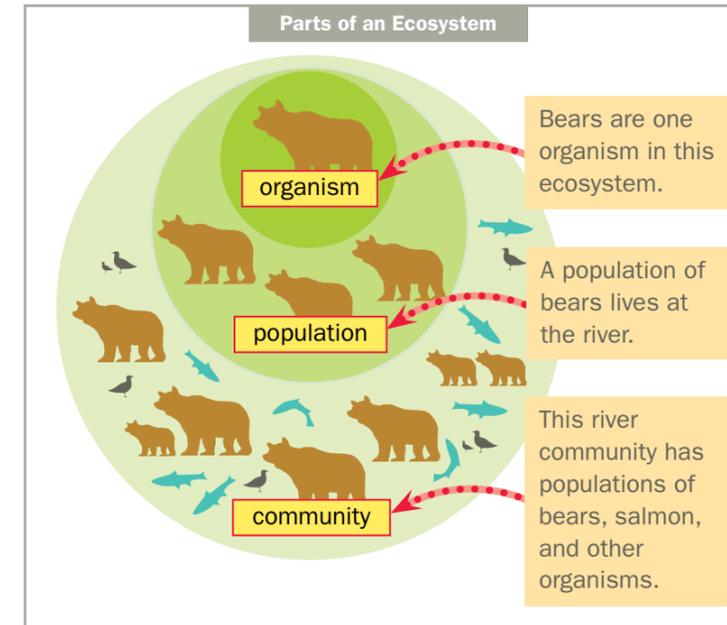
**STARTING/EMERGING** Use the picture labels on page 64 to give students practice reading vocabulary words. Explain that the living things in this picture are connected; interlock your fingers to demonstrate *interact*. Have students point to the living things that may interact in the picture.

**DEVELOPING** Have partners take turns reading paragraphs aloud to each other. Have student pairs choose a different ecosystem from the one pictured here, such as the schoolyard or a nearby park, and name an organism, a population, and a community that lives there.

**EXPANDING/BRIDGING** Have students read *Parts of an Ecosystem* and discuss rain forests in pairs, using this prompt: *The living things that I know interact in a rain forest are....* Ask volunteers to share their information in a whole-group discussion. Have a recorder list living things on the board and draw lines between those that interact.

A **population** is all the organisms of the same kind that live in the same place.

A **community** is made of populations of different organisms.



## WHY IT MATTERS

- You are an organism.
- You live in an ecosystem with other organisms.
- You live in a community with other populations.

## Other Resources

**BLACKLINE MASTERS** Use Master 32.

**TRANSPARENCIES** Use Overhead Transparency 8.

**TECHNOLOGY** *Parts of an Ecosystem* from *Content Essentials for Science Online*.

## Related Lessons

- *Kinds of Biomes* (pp. 66–67)
- *Types of Living Things* (pp. 72–77)
- *How Living Things Interact* (pp. 80–83)
- *Changes to Habitats* (pp. 86–87)
- *People and the Environment* (pp. 88–89)

# Extend Concepts

## Model It

To develop the concept pictured on page 65, draw a diagram using other examples of an organism, a population, and a community (one human figure, many human figures, humans with birds and trees, for instance). Invite students to draw stick figures or other simple drawings to make their own diagrams.

## Comprehension

**Determining Important Information** Refer students to pages 252–253 to learn about how to determine important information. Ask students to reread *Parts of an Ecosystem* and say the main idea using the text on the page.

## Prefixes

Point out that *ecosystem* is made of two parts: *eco* and *system*. *Eco* comes from a Greek word that means “a house” or “a place where things live.” A *system* is a group of things that work together. *Ecosystem* therefore means a place where a group of things live and work together.

## Cognates

ecosystem	el ecosistema
organisms	los organismos
salmon	los salmones
plants	las plantas
community	la comunidad

# Build Concepts

## OBJECTIVE

Students will learn how to choose a topic for science writing.

## Introduce

- Say *topic*. Have students repeat it.
- Explain that a topic is what a report is about.
- Explain that this lesson is about the first step in writing a report.
- Write the steps in the writing process on the board. Underline the first step:
  1. Choosing a Topic
  2. Taking Notes
  3. Organizing Ideas
  4. Drafting and Revising
  5. Editing and Proofreading

## Oral Language

**Seven Steps** Use the seven-step model on page T-38 to build background on the academic content words. Have students practice their oral language skills with partners or groups in Step 6.

**Vocabulary** Introduce vocabulary words related to the concept.

<b>Academic Content Words</b>	report, assignment, topic, brainstorm
<b>On-the-Spot Words</b>	invention, skateboard, cell phone, computer, car, MP3 player, subject
<b>Academic Process Words</b>	directions, select, ideas, collect

## Monitor Progress

Use Master T-24 and class discussion to monitor student progress. Use the rubrics on page T-25 as a resource.

# Choosing a Topic

## ESSENTIAL IDEA

When you write a report for science, you need to brainstorm and choose a topic.

The first step in writing a **report** is to read the directions of your **assignment**.

Write a report that answers the question:  
What is the most important invention in the past 100 years? Why? Explain your answer.

assignment

Now you know the subject of your report. Next, you need to select a **topic**, or what you are going to write about. Choose a topic for the assignment.



## Language-Level Differentiation

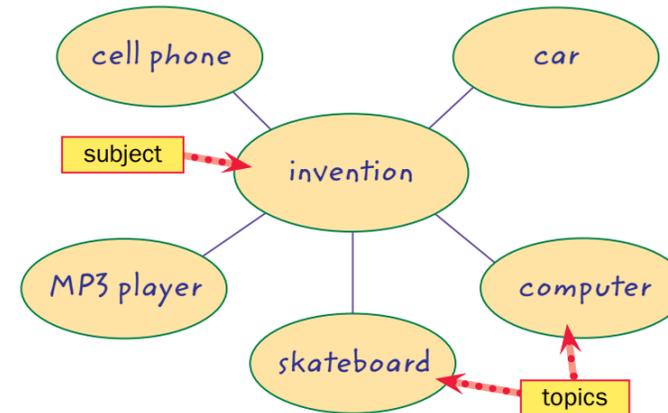
**STARTING/EMERGING** Use a recent assignment as an example of *assignment*. Recall for students a recent report. Ask a volunteer to tell its *topic*. Give this sentence starter: *The topic of the report was....* Help students understand the web on page 299. Have them repeat the words for the inventions after you.

**DEVELOPING** Read aloud the Essential Idea. Ask a volunteer to read the model directions on page 298. Introduce brainstorming as the way to get ideas for the report. Explain that the diagram shows a brainstorm on topics for a report on the most important invention. Ask students to talk about a time they brainstormed for a project.

**EXPANDING/BRIDGING** To provide an opportunity for extended language practice, have pairs or small groups of students discuss the inventions they think are most important from the chart.

## Brainstorming

Brainstorming is a good way to begin. When you **brainstorm**, you think of as many ideas as you can. Collect all of your ideas in one place.



Then choose one topic that you can find information for and that interests you.

## WHY IT MATTERS

Brainstorming helps you think of ideas to write about.  
Choose the topic that you know best or that is the most interesting to you.

## Other Resources

**BLACKLINE MASTERS** Use Master 54.

**TRANSPARENCIES** Use Overhead Transparency 1.

**TECHNOLOGY** *Choosing a Topic* from *Content Essentials for Science Online*.

## Related Lessons

Use these lessons to give students practice brainstorming topics for a report.

- *Observing* (pp. 206–207)
- *Fossils* (pp. 100–101)
- *Landforms* (pp. 102–105)
- *Energy* (pp. 170–171)
- *Magnets* (pp. 182–183)

# Extend Concepts

## Model It

Draw a blank web on the board. Make the circles large so students can write in them. Write *invention* in the center circle. Invite volunteers to provide their own ideas for topics to include in a report on inventions. Provide spelling help as needed.

## Comprehension

### Comparing and Contrasting

Refer students to pages 248–249 to learn about comparing and contrasting. Ask students to use compare-contrast signal words to talk about the similarities and differences of different inventions on the page.

## Compound Words

Point out that *brainstorm* is a compound word. Point to your head, to indicate *brain*. Use the pictures on pages 138–143 to illustrate *storm*. Ask students why they think those words are put together to describe getting ideas.

## Cognates

report	el reporte
collect	coleccionar
invention	la invención
paragraphs	los párrafos
select	seleccionar