How Are Living Things Different from Nonliving Things?

1. Make copies of Student Resource 1.1, Vocabulary, and distribute to students. Discuss the definitions with students as the terms come up throughout the section.

2. Ask: What living things can you name? (Answers will vary but should include the names of different types of animals.) What nonliving things can you name? (Answers will vary.) What makes a living thing different from a nonliving thing? (Some students may refer to some form of movement as a way to tell that something is alive. Other students may mention a living thing’s need for air, water, and food. Accept all reasonable responses.)

Organisms

Objectives
- Students name common examples of organisms.
- Students identify characteristics of living things.

Student Resource
- 1.2 Organisms

Inquiry Focus
- Infer

1. Define the term organism.

Print the word *organism* on the board and pronounce it for students. Tell them that scientists use the word *organism* to mean any living thing. Ask students to close their eyes and think about all the living things in their homes. Ask volunteers to name the kinds of organisms they thought of. They should include people, pets, plants, and perhaps “visitors” such as houseflies or mice.
2. Students name examples of organisms.
Make a transparency of Student Resource 1.2, Organisms, and project it for the class. Beginning with the letter O, have students identify organisms whose names begin with each letter in the word organism. If needed, provide clues such as, “I’m thinking of an organism that has long ears, soft fur, and likes carrots.” (rabbit for R) Print students’ suggestions on the transparency. Remind students that they also can name plants because they are living things as well.

3. Students identify the needs and characteristics of living things.
Read all the organism names that students suggested, and ask: What do all of these organisms need in order to stay alive? (Students should mention air, water, food, a place to live, the right temperatures, sunlight, space, and the like.) What do all of these organisms do that nonliving things cannot do? (grow; reproduce; in the case of animals, move from place to place, breathe, eat)

4. Students describe habitats.
Ask: Where can organisms live? (Answers should show understanding that organisms live in a wide variety of different places.) Explain that the place where an organism lives is called its habitat. What habitat does a squirrel live in? (tree or forest) What nonliving things are found in a squirrel’s habitat? (air, sunlight, soil, rocks, water) What other kinds of organisms live in that same habitat? (oak trees, other types of plants, birds, chipmunks, and the like)

Assessment
Ask: How do you know that squirrels are living things? (Students should name several characteristics of living animals, such as needing food and water, moving by themselves, growing, and reproducing.)
Living or Nonliving?

Is each of these things living or nonliving?

book  earthworm  nail
dead leaf  car  dog
green grass  penny  dead flower

Write the living things in the left circle. Write the nonliving things in the right circle. Where will you put the things that were once alive?

1. Students identify nonliving things.
   Ask students to name nonliving things in the classroom. Ask: **How do you know that these things are nonliving?** *(They do not move by themselves, do not need food or water, and do not reproduce.)*

2. Students compare living and nonliving things.
   Give each pair of students a replica of an organism, such as a rubber snake. Ask: **Are these objects living or nonliving?** *(nonliving) How is your object like a living thing?** *(The rubber snake looks like a real snake.)* Ask: **How is the rubber snake different from a real snake?** *(The rubber snake does not move by itself, does not eat, does not bite, does not need water, and does not reproduce like a real snake.)* Repeat the procedure with other replicas.

3. Students classify objects as living or nonliving.
   Make copies of Student Resource 1.3, *Living or Nonliving?* and distribute to students. Review the instructions with the class. Point out the dead leaf and the dead flower. Ask: **Is the leaf living or nonliving?** *(It is nonliving now, but it was living when it was on a tree.)* **Where should the leaf go in the diagram?** *(in the part where the circles overlap)* When students complete the page, review their answers as a class.

**Assessment**

Ask: **How can you tell living things from nonliving things?** *(Living things need food, water, and air. They move and reproduce.)*
Section Assessment

**Vocabulary**
1. Circle the picture of an organism.

**An Organism’s Habitat**
2. Circle the pictures of two things in a squirrel’s habitat.

**Classify**
3. Look at the living and nonliving things your teacher gives you. Put all the living things in Tray 1. Put all the nonliving things in Tray 2.

**Materials**
- For each station
  1. *live organisms, such as a plant and a goldfish
  2. *nonliving objects, such as an eraser and a plastic fish
  2. plastic trays

*Not provided in kit*

**In Advance**
For each materials station, obtain a live potted plant and a live animal. Put the organism in a small container. Label the two trays 1 and 2.

1. Set up enough materials stations around the room to allow one-third of the class to work alone at a station during the hands-on portion of the assessment.

2. Make copies of Student Resource 1.4, *Section 1 Assessment*, and distribute to students.

3. Divide the class into three groups. While one group is working at the stations to complete the hands-on portion of the assessment, the other two groups can be completing the top part of the assessment. Rotate the groups through the stations until each has completed the hands-on portion of the assessment. Check each student’s classification of the objects as he or she finishes sorting them.

4. Discuss the answers as a whole-class activity.