

## SECTION



## Enrichment

## Living or Nonliving?

As you now know, all living organisms share characteristics or traits that make them alive. Some of these characteristics are (1) being made up of cells, (2) having the ability to respond, (3) using energy, (4) growing and developing, and (5) being able to reproduce.

**Directions:** Use a dictionary to define the following. Be sure to indicate whether the item is a living organism or a nonliving thing and which, if any, of the five traits it has.

1. fossil

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

2. lancelet

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

3. yeast

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

4. seed

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

5. algae

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

6. virus

Definition: \_\_\_\_\_

Living or nonliving: \_\_\_\_\_

Characteristics: \_\_\_\_\_

## SECTION

## 3

## Enrichment

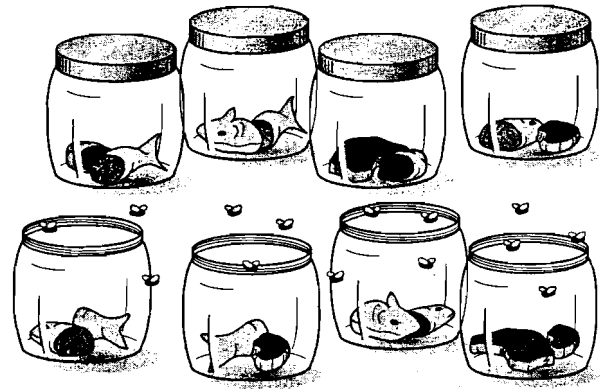
## Redi's Experiment

Francesco Redi was born in Italy in 1626. At age 21, he received a medical degree from the University of Pisa, Italy. From then on, he worked as a doctor.

Most of the people of Redi's time thought living things came spontaneously from mud or decaying meat. A few scientists, including Redi, thought that idea was probably not true. He decided to try to find out how maggots appeared in decaying meat. Many thought the maggots came from the meat, but Redi thought that flies laid their eggs on the meat and the maggots hatched from those eggs.

To test his theory, Redi prepared eight containers. Into each he placed a piece of meat or fish. He then sealed four of the containers and left four uncovered. Drawn by the smell of the meat, flies buzzed around the containers. After a few days, maggots appeared on the meat in the four uncovered containers. The meat in the four covered containers had decayed, but there were no maggots.

Next, Redi prepared eight more containers for a second experiment. Into each, he placed a piece of meat or fish. He then covered four of the containers with gauze, which allowed air to move freely in and out of the containers. He again left four containers uncovered. As before, flies buzzed around the containers, attracted by the smell of the meat. After a few days the results were the same—maggots could be found only on the meat in the uncovered containers.



1. Before the 1700s, some people believed that life came from mud or decaying meat. What is this theory called? \_\_\_\_\_
2. What theory did Redi prove? \_\_\_\_\_
3. In the first experiment, what did Redi prove? \_\_\_\_\_
4. What did Redi do differently in the second experiment? \_\_\_\_\_
5. What did Redi prove in the second experiment that he had not already proved in the first? \_\_\_\_\_