

## CHAPTER

# 1

# The Cell

### the **BIG** idea

**All living things are made up of cells.**

## Key Concepts

### SECTION

1

**The cell is the basic unit of living things.**

Learn why cells are important to the study of life.

### SECTION

2

**Microscopes allow us to see inside the cell.**

Learn what microscopes have shown about the inner structure of cells.

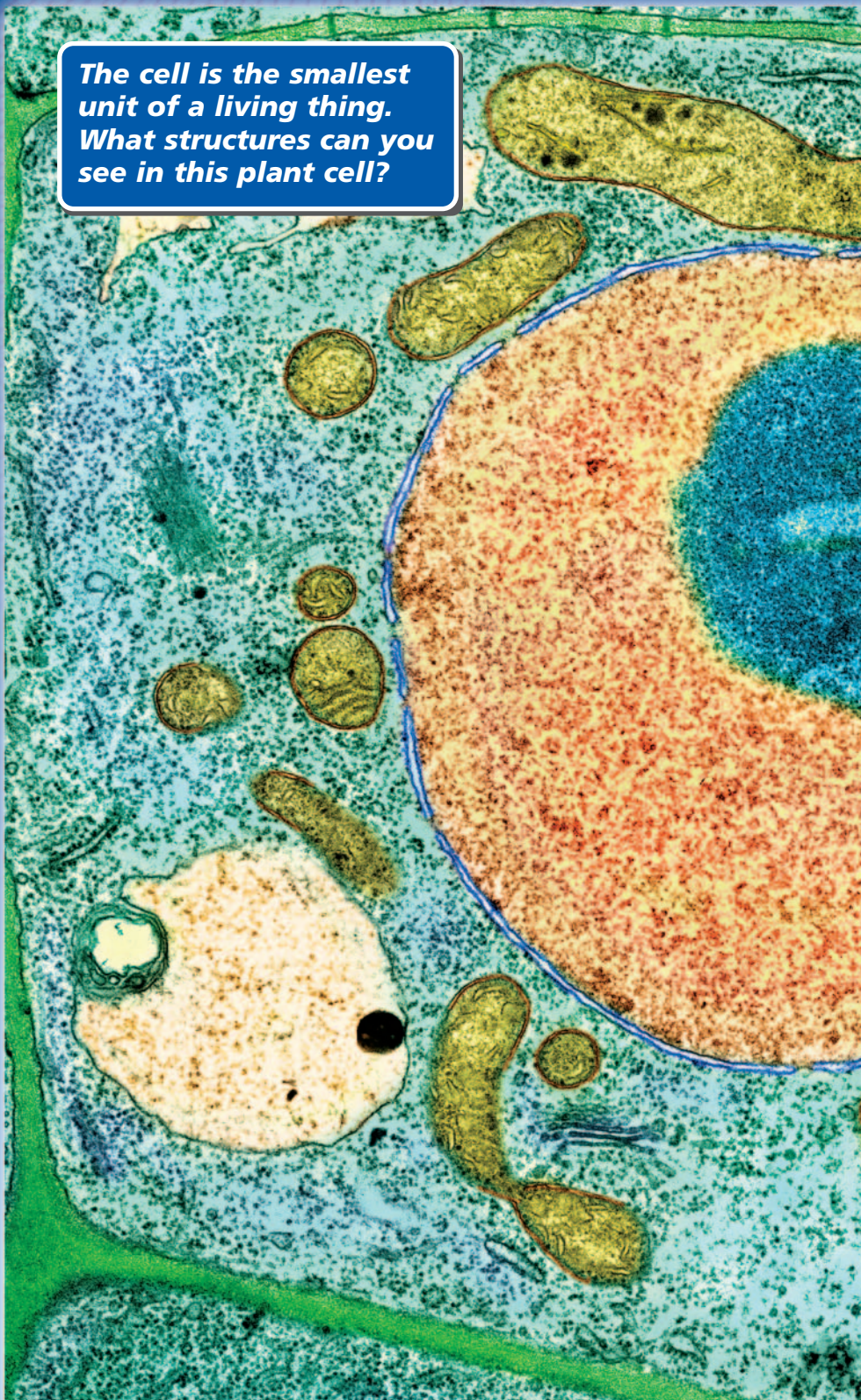
### SECTION

3

**Different cells perform various functions.**

Learn about different types of cells in both unicellular and multicellular organisms.

*The cell is the smallest unit of a living thing. What structures can you see in this plant cell?*



### Internet Preview

#### CLASSZONE.COM

Chapter 1 online resources:  
Content Review, two  
Simulations, two Resource  
Centers, Math Tutorial, Test  
Practice



# EXPLORE the BIG idea

## Seeing and Understanding

Cut out a color photograph or drawing from a magazine or newspaper and place it on a flat surface. Use a magnifying glass to look at the image. Start with the magnifying glass right on top of the image and then slowly move the magnifying glass away, studying the photograph as you do.

**Observe and Think** What happens as you move the magnifying glass away from the image? How can a simple magnifying tool help you understand better how the image was printed?



## Bits and Pieces

Find a sentence approximately ten words long in a newspaper or magazine and cut it out. Then cut the sentence into words. Ask a friend to put the words back together into a sentence.

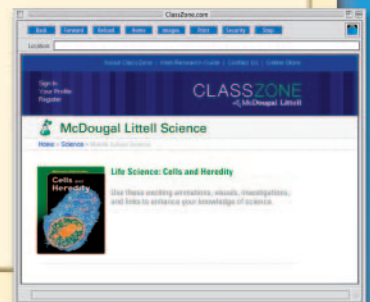
**Observe and Think** What clues can your friend use to put the sentence back together? How can the parts of something help you understand how the whole works?



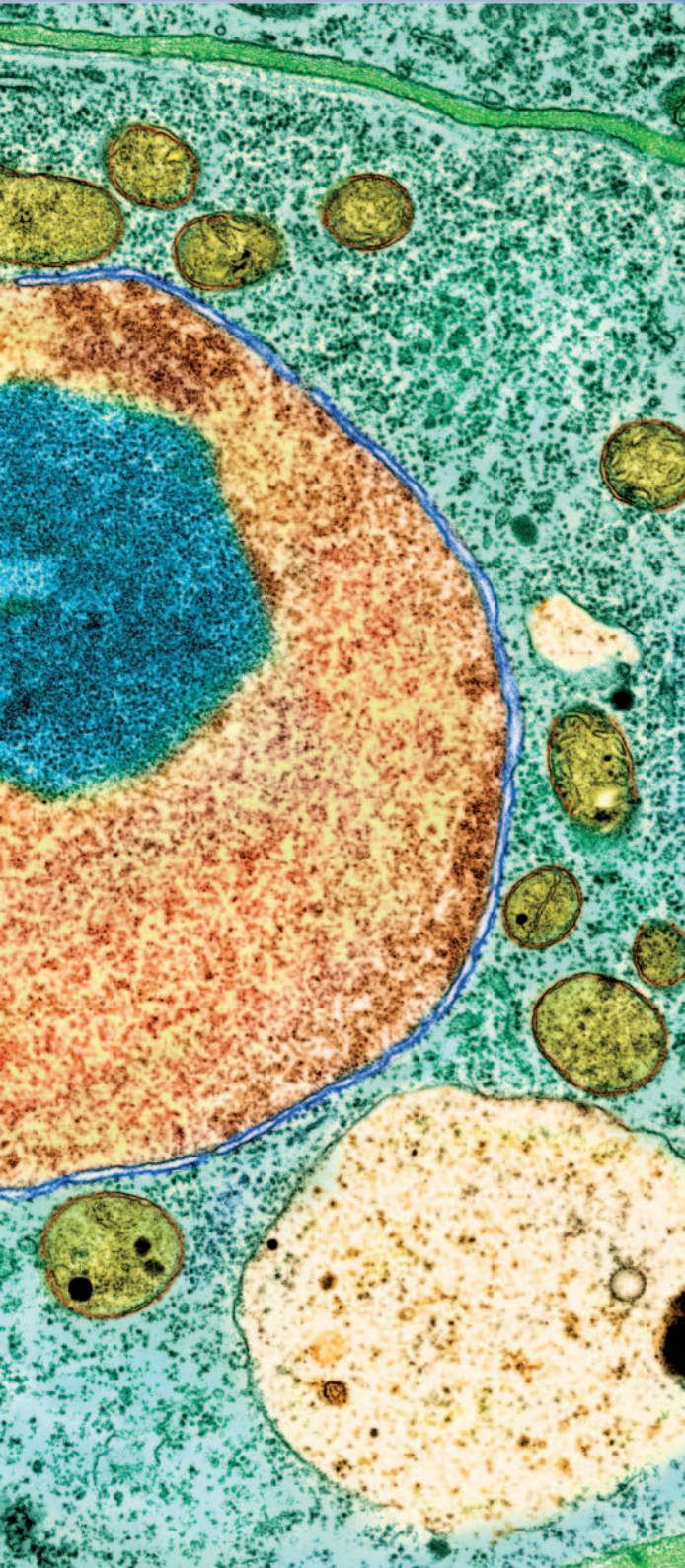
## Internet Activity: Cells

Go to [ClassZone.com](http://ClassZone.com) to take a virtual tour of a cell.

**Observe and Think** What functions do the different parts of the cell perform?



Cell Theory Code: MDL031





# Getting Ready to Learn

## CONCEPT REVIEW

- Living things share certain characteristics that distinguish them from nonliving things.
- Living things have common needs, including energy, matter, and living space.

## VOCABULARY REVIEW

See Glossary for definitions.

cell

genetic material

organism

theory



## CONTENT REVIEW

CLASSZONE.COM

Review concepts and vocabulary.

## TAKING NOTES

### MAIN IDEA WEB

Write each new blue heading, or main idea, in the top box. In the boxes around it, take notes about important terms and details that relate to the main idea.

### SCIENCE NOTEBOOK

All living things are made of cells.

The cell is the smallest unit that performs the activities of life.

Multicellular organisms have different types of cells working together.

In a unicellular organism a single cell carries out all the activities of life.

### VOCABULARY STRATEGY

Write each new vocabulary term in the center of a **four square** diagram. Write notes in the squares around each term. Include a definition, some characteristics, and some possible examples of the term. If possible, write some things that are not examples of the term.

<b>Definition</b> Any living thing	<b>Characteristics</b> Needs energy, materials from the environment, and living space. Grows, develops, responds to environment, reproduces. Is made up of one or more cells.
<b>Examples</b> Dogs, cats, birds, insects, moss, trees, bacteria	<b>Nonexamples</b> Rocks, water, dirt

ORGANISM

See the Note-Taking Handbook on pages R45–R51.