

**SUPER-SIZE**

# **TEACHER GUIDE**

# **SCIENCE & BIOLOGY**

for e-Editions



A  
Hollister Kids  
Teacher Guide  
From:



**THE E-EDITION IS A VALUABLE SOURCE OF INFORMATION FOR STUDENTS**

# UNIT 1

## CELL STUDIES

*The living cell is the base of all life on Earth. A strong understanding of cells and how they function is vital for any science or biology student. The activities in this unit support concepts taught in class by using the e-Edition to relate cellular biology to real life.*

### 1. Stayin' Alive \*

Biology is the study of life, but what makes something alive? There are five characteristics of living things. All living things (1) are made up of cells, (2) reproduce, (3) obtain and use energy, (4) grow and develop, and (5) respond to their environment. Discuss the characteristics of living things as a class. Then direct students to find a photo of a living thing in the e-Edition. On the "Stayin' Alive" activity sheet, have them write out how the selected living thing meets each of the five characteristics.

*STANDARDS/SKILLS: Understanding life functions such as growth, development, reproduction and response to environment.*

### 2. Cells, Tissues, Organs

Our bodies have complex organization. Cells are the smallest part of living things. Many cells grouped together form a tissue. Tissues in a group make an organ. Organs working together make an organ system. Tissues and organs often make news. Medical writers write about treatments or breakthroughs, and sportswriters cover injuries to athletes. Have students find a news or sports story that deals with tissues or organs. Ask them to write a paragraph describing how these body parts are making news and what will happen next.

*STANDARDS/SKILLS: Understanding the structure and function of living cells, and how different tissues and organs are made up of different cells.*

### 3. In the Blood

How do we see cells at work? In medicine, cells play an enormous role in the actions and functions of blood. White blood cells fight infections and red blood cells carry oxygen and nutrients needed for healthy bodies. Blood makes news in many ways, from accidents, to sports injuries to violence between people. Have students find and

read a news story in which blood plays a role. Then challenge them to write a creative story on the health role that blood plays in the news event—from the point of view of the blood! Share ideas as a class.

*STANDARDS/SKILLS: Explaining why specialized cells are needed by plants and animals, including such cells as white and red blood cells.*

### 4. Cellular City

Many great writers use metaphors or similes to describe things. The sentence "A single cell is a little city" is a metaphor. The sentence "A single cell is like a little city" is a simile. How far can students take this kind of comparison? As a class, discuss the different parts of a cell. Then have students look through the e-Edition to find different parts of a city. Ask them to relate those parts to parts of a cell. Make a list as a class. Finish by having students study the list and write a short poem on "The Cellular City."

*STANDARDS/SKILLS: Classifying cells and organisms on the basis of organelle and/or cell types; showing how science concepts can be interpreted through creative expression.*

### 5. Give & Take \*

One big difference between plant cells and animal cells is that plant cells are autotrophic while animal cells are heterotrophic. That means that plants produce their own food energy and animals need to eat plants or other animals for food energy. In teams, have students search the stories, photos and ads in the e-Edition for two animals and two plants. For each animal, have them list at least three plants or other animals that it would eat. For each plant, have them list at least three animals that might eat it.

*STANDARDS/SKILLS: Understanding how organisms can be grouped into plants, which use sunlight to make their own food, and animals, which consume energy-rich foods.*

\*Includes activity sheet for students.

# STAYIN' ALIVE

*Biology is the study of life, but what makes something alive? There are five characteristics of living things. All living things (1) are made up of cells, (2) reproduce, (3) obtain and use energy, (4) grow and develop, and (5) respond to their environment. Discuss the characteristics of living things as a class. Then find a photo of a living thing in the e-Edition. In the spaces below, write out how the selected living thing meets each characteristic.*

## **LIVING THING IN THE NEWS:**

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**(1) How do we know it is made up of cells?**

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**(2) How does it reproduce?**

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**(3) How does it obtain and use energy?**

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**(4) In what stages does it grow and develop?**

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**(5) How does it respond to its environment?**

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- SHeroes ..... TG
- Sports Science .....
- Steps to Better Reading ..... TG
- Study Skills ..... TG

- Study Skills 2 ..... TG
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## Weekly News Features

- Newspaper PLUS ..... web  in paper
- Summer Plus ..... web  in paper
- e-Edition PLUS ..... web  in paper
- NewsBytes e-Editions .. web  in paper

Other \_\_\_\_\_

Your Name \_\_\_\_\_

Newspaper Name \_\_\_\_\_

Street Address (No Post Office Boxes, Please) \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Area Code and Phone Number \_\_\_\_\_ Fax Number \_\_\_\_\_

Credit Card Number \_\_\_\_\_ Visa  MC  \_\_\_\_\_ Authorized Signature \_\_\_\_\_

## Circulation

- under 50,000 .....
- 50,000-200,000 .....
- over 200,000 .....

## Format

- black & white .....
- color .....

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