(Copy the following lab activity set up in your science notebook.)
Title: Activity 12 Levels of Cellular Organization
Challenge Question: How are living things organized?

## Background:

- Cells are the basic unit of life; cells perform all of the processes necessary for life.
- Some organisms are made up of just one cell, while other organisms, such as humans, are made up of many cells.
How are multicellular organisms different from unicellular organisms?


## Vocabulary:

| Term | Definition | Picture or Example |
| :--- | :--- | :--- |
| organism |  |  |
| tissue |  |  |
| organ |  |  |
| organ system |  |  |
| structure |  |  |
| function |  |  |

## Materials:

Cells and Heredity book
Procedures:

1. Read pages 38-47 in Cells and Heredity book.
2. Answer questions 1-3 and 5-19. Write answers in Data/Results section in science notebook activity set up.
3. Do Lesson Review on page 49 questions 1-8. Write answers in science notebook set up in Data/Results section.

## Data/Results:

(Write answers to book questions here.)

## Analysis Questions:

1. How do you think the nervous, epithelial, connective, and muscle tissues in your stomach work together in the process of digestion? (Hint: Think about the functions of the four types of tissues.)
2. What are the different levels of cellular organization in a living thing?
3. How are cells, tissues, and organs organized into an organ system? (Hint: Think about what makes up a tissue, an organ, and an organ system.)
4. Think about the functions of a red blood cell and a nerve cell. How do the structures of these specialized cells relate to their functions?
5. What are some ways body systems work together?

Conclusion: How are living things organized? Use data, evidence and examples from the reading to support your answer.

