(Copy the following lab activity set up in your science notebook.)
Title: Activity 9 The Characteristics of Cells
Challenge Question: What are living things made of?

## Background:

- All living things are made up of cells.
- Cells need to take in nutrients and release waste.
- Cells need energy to sustain life.


## Vocabulary:

| Term | Definition | Picture |
| :--- | :--- | :--- |
| cell |  |  |
| organism |  |  |
| cell membrane |  |  |
| cytoplasm |  |  |
| organelle |  |  |
| nucleus |  |  |
| prokaryote |  |  |

## Materials:

Cells and Heredity book

## Procedures:

1. Read pages 4-11 in Cells and Heredity book.
2. Answer questions 1, 2, 3, and 5-13. Write answers in Data/Results section in science notebook activity set up.
3. Do Lesson Review on page 13, questions 1-9. Write answers in science notebook set up in Data/Results section.

Data/Results:
(Write answers to book questions here.)

## Analysis Questions:

1. Describe the main difference between prokaryotic and eukaryotic cells. What type of cell makes up bacteria? What type of cells are plant and animals made of?
2. Why is the cell theory important? Explain.
3. Create a Venn diagram to organize and compare information about prokaryotic and eukaryotic cells.
4. Choose an organism that you are familiar with, and explain how the three parts of the cell theory relate to that organism.

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

