Life Science 7 (Copy the following lab activity set up in your science notebook.)

Title: Activity 10 The Chemistry of Life

Challenge Question: What are the building blocks of organisms?

Background:

- An atom is the smallest unit of an element that has the properties of that element.
- An element is made up of one or more of the same type of atom.
- Bread is made from several substances including sugar, water, and salt. Is bread an element?

Vocabulary:

Term	Definition	Picture
atom		
molecule		
lipid		
protein		
carbohydrate		
nucleic acid		
phospholipid		

Materials: *Cells and Heredity* book

Procedures:

1. Read pages 14 - 21 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 23, 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. Give an example of an atom and an example of a molecule.

2. Rank the following terms by level of organization: cell, atom, molecule. Explain your ranking.

3. What are the six major elements that make up the human body? What is the combined percentage of the three most common elements found in the human body?

4. Describe the functions of the four main types of molecules in the cell.

5. Why are lipids good for making cell membranes? (**Hint**: Think about the two different parts of the phospholipid molecule.)

Conclusion: What are the building blocks of organisms? Use data, evidence and examples from the reading to support your answer.