

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## 7.1 Life is Cellular

Directions: Read pages 190-194 in the **Biology textbook** (parrot on the cover). As you read, complete the following questions.

1. THINK ABOUT IT: The smallest living unit of any organism is the \_\_\_\_\_.

### The Discovery of the Cell

2. What invention made it possible to discover cells?
3. Fill in the chart below with the scientists name and his key discovery! (some have been completed for you...)

Year	Scientist Name	Description of the Discovery
1665		
1675	Anton van Leeuwenhoek	
	Matthias Schleiden	
1839		
		New cells can only be produced from the division (splitting) of existing cells

4. What are the three parts of cell theory?

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### Exploring the Cell

5. Key Concept: How do microscopes work?
6. The first lens of a light microscope is called the \_\_\_\_\_ lens. The second lens is called the \_\_\_\_\_ lens.
7. Most cells are transparent, or clear. How can we solve this problem and use microscopes to view cells?
8. Light microscopes can be used to see cells and cell structures as small as \_\_\_\_\_ --certainly pretty small!... Some electron microscopes can be used to study cellular structures that are \_\_\_\_\_ in size.
9. The two types of electron microscope are: \_\_\_\_\_ and \_\_\_\_\_.

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### **Prokaryotes and Eukaryotes**

10. All cells are surrounded by a thin, flexible barrier called a \_\_\_\_\_/
11. BONUS—what macromolecule is the cell membrane made of?
12. What determines the category of a cell?
13. Define:
  - Eukaryotes—
  - Prokaryotes—

### **7.1 Assessment Questions**

1.
  - a. Review—What is a cell?
  - b. Explain—What three statements make up cell theory?
  - c. Infer—How did the invention of the microscope help the development of the cell theory?
2.
  - a. Review—How do microscopes work?
  - b. Apply Concepts—What does it mean if a micrograph is “false colored”?
3.
  - a. Review—What features (organelles/parts) do all cells have?
  - b. Summarize—What is the main difference between prokaryotes and eukaryotes?