

Name _____ Date _____ Hour _____

Guided Reading Chapter 7 Section 1

Cell Discovery and Theory

1. Which technology was crucial to the discovery of cells?
2. Why did Robert Hooke use the term “cellulae” to describe his observations in the microscope?
3. What was significant about Anton van Leeuwenhoek’s discoveries using the microscope?
4. Why are Schleiden, Schwann, and Virchow important to the discovery of cells?
5. List the three principles of the cell theory.
6. Turn back to pg 181, what happens to the level of detail visible as we view the specimen under increasing magnification.
7. Why do scientists stain their specimens with dyes?
8. What are the four types of electron microscopes? What is a disadvantage of the TEM, or the SEM?
9. How do cells differ from each other?

10. What three things do all cells have in common?

11. What are the two categories scientists use to classify cells?

12. What are organelles? Why are they important to eukaryotic cells?

13. How are prokaryotic cells and eukaryotic cells similar? How are they different?

14. How did the development and improvement of microscopes change what we know about living things?

15. Describe how you would determine whether the cells of a newly discovered organism were prokaryotic or eukaryotic.