Biology

Chapter 3: Cell Structure Objectives:

Looking at Cells

- Cells under the microscope
- Types of Microscopes

Cell Features

- The Cell Theory
- Prokaryotes
- Eukaryotic Cells
- The Cell Membrane

Cell Organelles

- The Nucleus
- Ribosomes and the Endoplasmic Reticulum
- Mitochondria
- Structures of Plant Cells

Vocabulary	***At the end of this unit, you should be able to:***
1. light microscope 2. electron microscope 3. magnification 4. resolution 5. scanning tunneling microscope 6. cell theory 7. cell membrane 8. cytoplasm 9. cytoskeleton 10. ribosome 11. prokaryote 12. cell wall 13. flagellum 14. eukaryote 15. nucleus 16. organelle 17. cilium 18. phospholipid 19. lipid bilayer 20. Endoplasmic Reticulum 21. vesicle 22. Golgi apparatus 23. lysosome 24. mitochondrion 25. chloroplast 26. central vacuole	• Describe how scientists measure the length of objects. • Relate magnification and resolution in the use of microscopes. • Analyze how light microscopes function. • Compare light microscopes with electron microscopes. • Describe the scanning tunneling microscope. • List the three parts of the cell theory. • Determine why cells must be relatively small. • Compare the structure of prokaryotic cells with that of eukaryotic cells. • Describe the structure of cell membranes. • Describe the role of the nucleus in cell activities. • Analyze the role of internal membranes in protein production. • Summarize the importance of mitochondria in eukaryotic cells. • Identify three structures in plant cells that are absent from animal cells.