

Biology-Unit 3a Study Guide: Cytology

The next three weeks will be spent on the study of the basic building unit of life, the cell. The basic unit of life can perform all the functions of living things. We will look at how that happens. The unit will be broken up into three parts: Cell Structure (3a), Cells Metabolism (3b), and Cell Reproduction (3c).

Cell Structure (3a)

Study Objectives

1. Advocate for the small size of cells.
2. Relate cellular structures to their functions.
3. Compare and contrast the structures found in typical plant, animal and bacterial cells.
4. Explain the role of the cell membrane as a highly selective barrier in diffusion, osmosis and active transport.

Assignments:

- Reading from Chapter 4 (pg69-90); Chapter 5
- Notebook:
 - Reading Notes
 - Crossword
 - Chapter 4 Review (pg 92)
 - Chapter 5 Review (pg 108)
 - Concept Map (either by hand or on computer)
- Lab: Diffusion in Agar Cells 10pts
- Lab: Osmosis and Diffusion 10pts
- Vocabulary Quiz (3a) 15pts
- 3a Unit Test 30pts

Vocabulary:

chromosome cytosol prokaryote eukaryote centrioles chloroplast cytoskeleton cytoplasm bilayer microtubules
microfilaments vacuoles lysosomes golgi apparatus mitochondria peroxisomes ribosomes endoplasmic reticulum
homeostasis

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