

Biology 1  
**Cell Structure and Function**  
**Study Guide**



The following is a list of terms you will be responsible for from Chapter 1.1, ALL of Chapter 4 and parts of 23.1, 23.2 & 24.1

Consider how we addressed these structures & topics over the last few weeks. You may want to review:

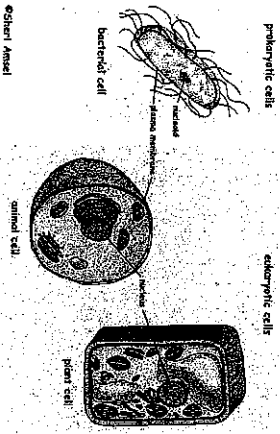
- **the book sections**
- **your colored diagrams**
- **your Microscope Lab and/or Virtual Investigation (@ the book website)**

- Characteristics of Life
- Cell Theory
- Cell Size Limitations
  - Surface Area to Volume Ratio
- Basic Parts of All Cells
  - Plasma Membrane
  - Cytoplasm
  - DNA
- Categories of Cells
  - Prokaryote
  - Eukaryote
    - Plant
    - Animal
- Colonial Organisms (*faking multicellular*)
- Multicellularity (*back to Cell Size issues*)
  - Tissue
  - Organs
  - Organ System
- Membrane
  - Phospholipid Bilayer
  - Membrane Proteins
  - Fluid Mosaic Model
- Nucleus
  - Chromosomes
  - DNA & RNA
- Nuclear Envelope
- Nucleolus
- Ribosomes
- Mitochondria (*evidence of endosymbiosis*)
  - Mitochondrial DNA
  - Double Membrane
- Endoplasmic Reticulum
  - Rough E.R.
  - Smooth E.R.
- Golgi apparatus
- Vesicles
  - Lysosomes
  - Peroxisomes
  - Secreting Vesicles
- Cytoskeleton
- Cilia
- Flagella
- Centrioles
- Unique Features of Plant Cells
  - Photosynthesis
  - Cell Wall
  - Central vacuole
  - Chloroplasts (*evidence of endosymbiosis*)
    - Chloroplast DNA
    - Double Membrane
- Comparing Cells
  - Prokaryotes vs. Eukaryotes
  - Plant Cells vs. Animal Cells
  - Viruses vs. Living Cells
- Virus Structure
  - Protein Capsid/Envelope
  - RNA/DNA

Biology 1  
Cells Practice Test

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Hour: \_\_\_\_\_

Comparing Cells



Check the appropriate boxes below:

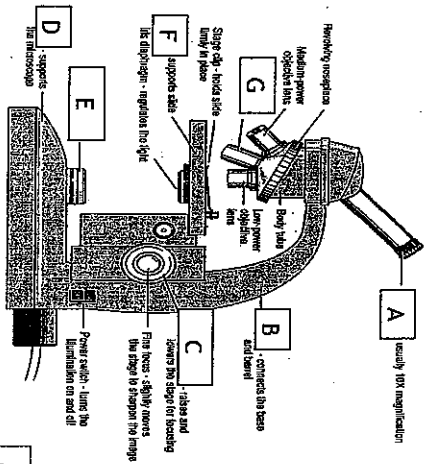
Organelle	Present in Prokaryote?	Present in Plant Cell	Present in Animal Cell
Cell Wall			
Cell Membrane			
Nucleus			
Ribosome			
Golgi Complex			
Endoplasmic Reticulum			
Mitochondria			
Vesicles			
Chloroplasts			
Large/Contractile Vacuole			

What are the three parts of the cell theory?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

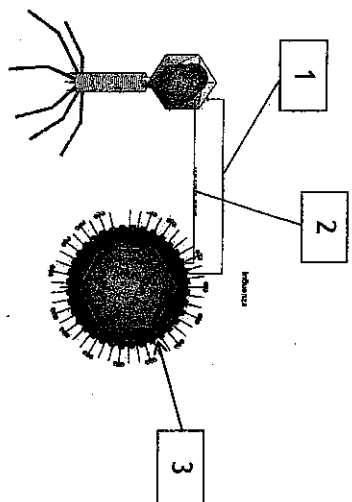
Function (in 4 words or less)

Organelle	Function (in 4 words or less)
Cell Wall	
Cell Membrane	
Nucleus	
Ribosome	
Golgi Complex	
Endoplasmic Reticulum	
Mitochondria	
Vesicles	
Chloroplasts	
Large/Contractile Vacuole	



Part of Microscope	
A	
B	
C	
D	
E	
F	
G	

Who are we?  
...and what did we do?



Part of Virus	Number on Diagram
Nucleic Acid Core	
Protein Capsid	
Envelope	

What are antibiotics?

Describe the origins of eukaryote organelles.

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