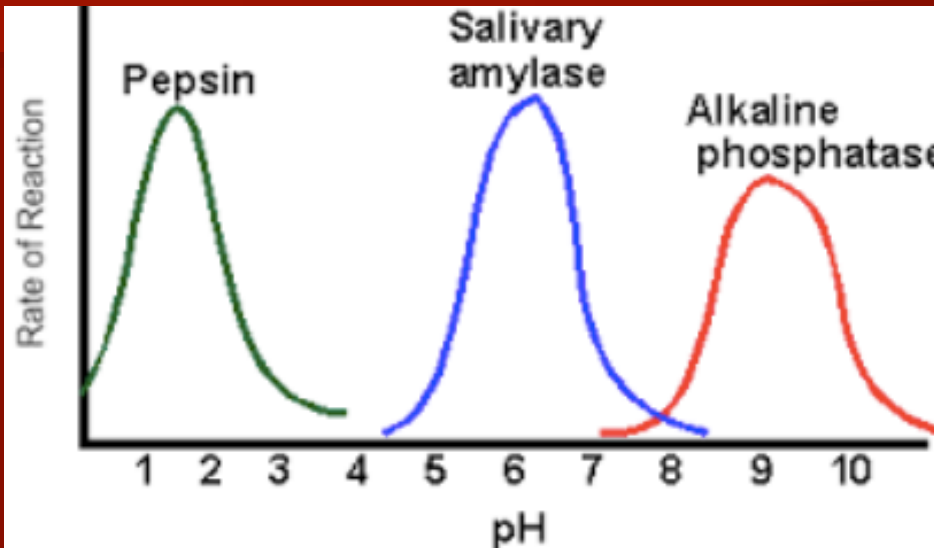
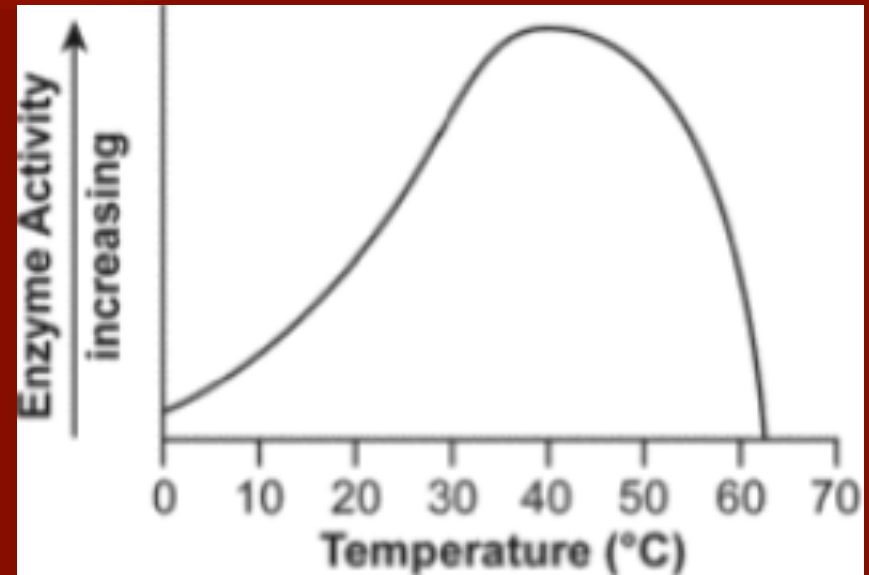


Warm Up (9/6-9/7)



Graph 1



Graph 2

Analyze the graphs above. Write at least 2 sentences for EACH graph (at least 4 sentences total) explaining your analysis.

Agenda

- Warm up
- Grade HW
- Ch 6 Quizlet Live
- 7.1 Notes: The Discovery of Cells
- Lab: Observing plant and animal cells

**Homework: Read 7.1 and complete 7.1
Section Assessment (pg 174 #1-5)
DUE MON/TUES**

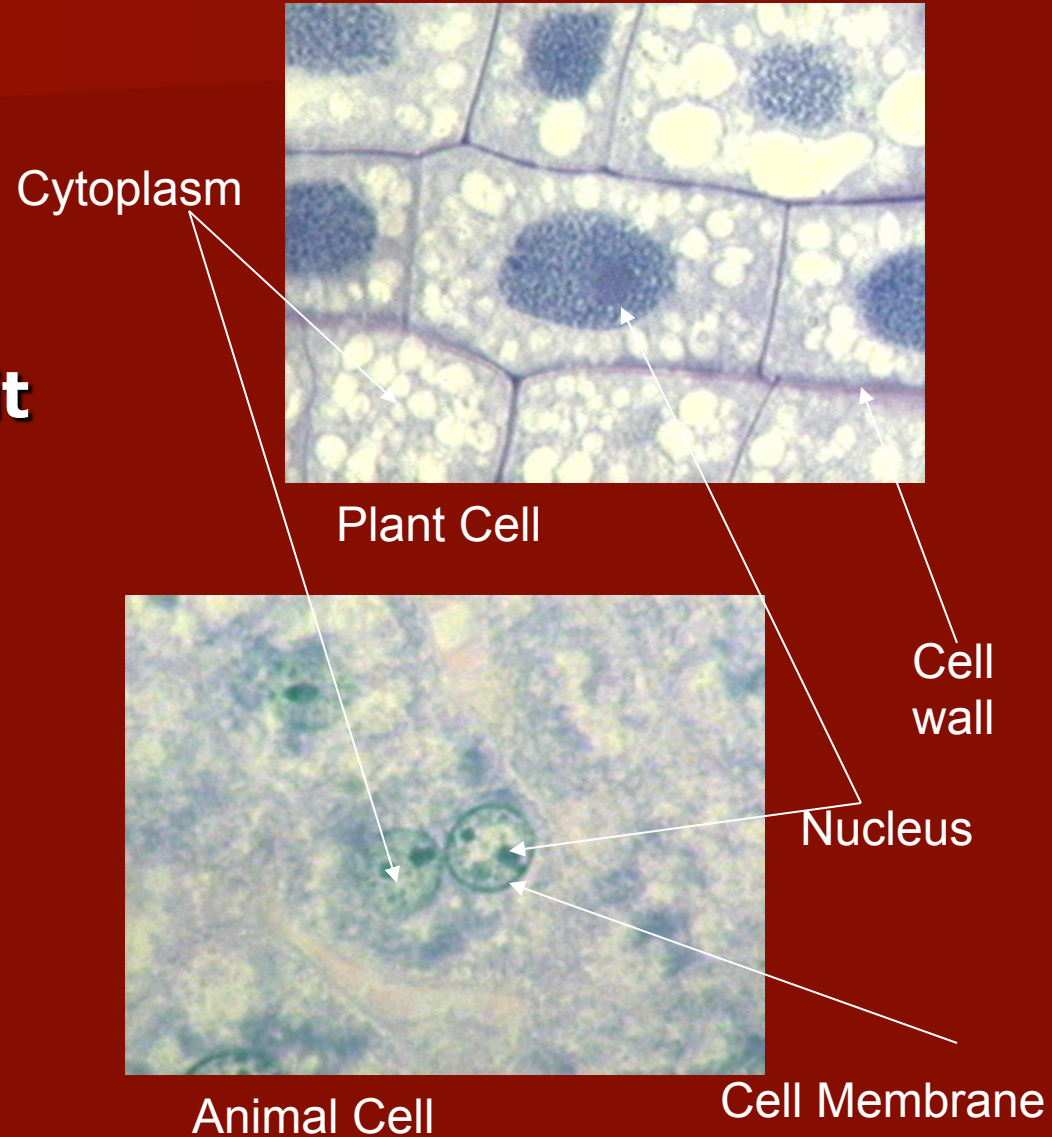
7.1

The Discovery of Cells

The Cell

- **Basic unit of all living organisms**
- **How many cells can fit into the letter "O"?**

50,000 cells !



History of the Microscope

- Before microscopes, diseases were thought to be caused by curses and spirits
- Anton van Leeuwenhoek (1600's) first simple microscope
- Robert Hooke (1665) – cork cells with crude compound microscope
- 1800's compound light microscope – greater magnification (x 1500)

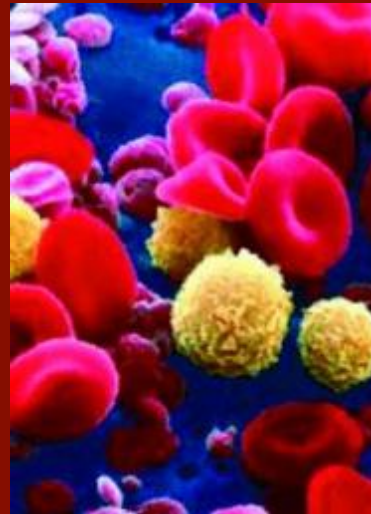


Electron Microscopes

- **Electrons rather than light passed over or through an object**
- **Specimen must be in a vacuum because electrons can collide with air particles**
- **Can view objects as small as molecules (x 500,000)**



Pollen



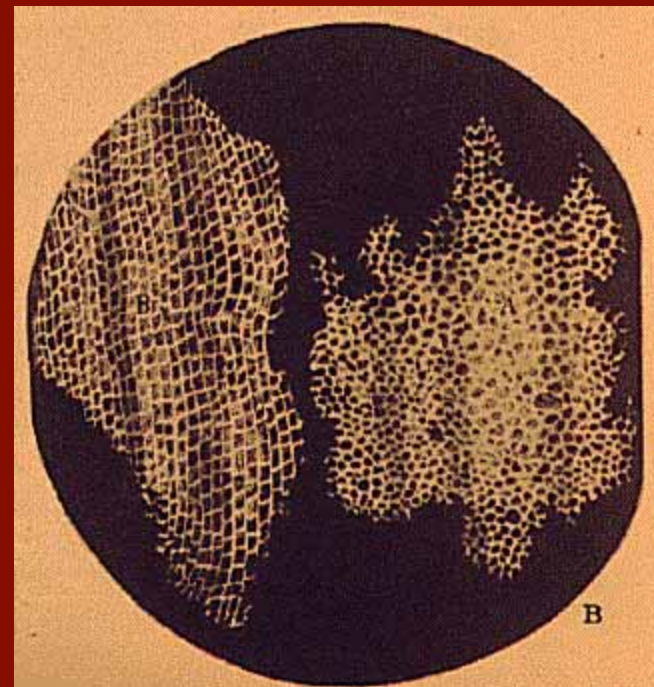
Stem Cell



The Cell Theory

- **All organisms are composed of one or more cells**
- **Cell is basic unit of organization of organisms**
- **All cells come from preexisting cells**

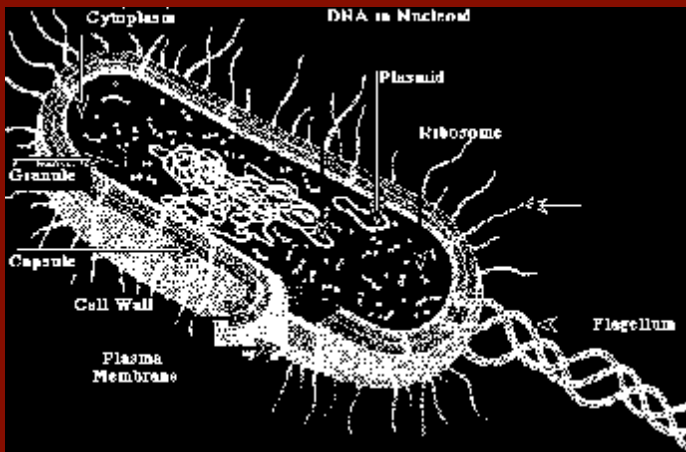
Hooke's cork cell



Two Cell Types

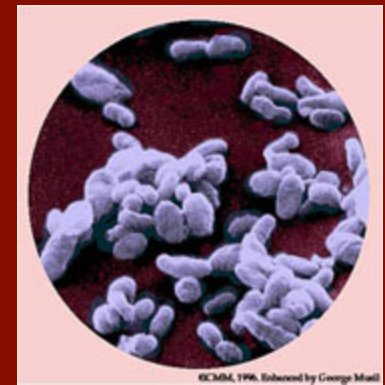
Prokaryote

- Single-celled organisms
- Cells lack internal structures surrounded by membranes
- No true nucleus – DNA floating around
- Example - Bacteria



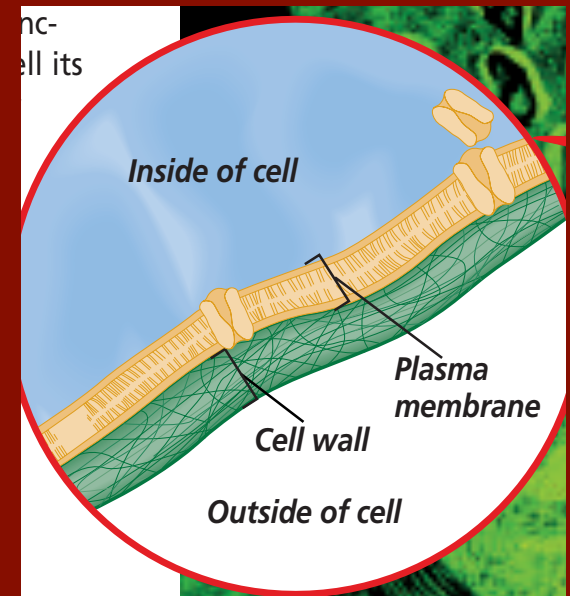
Eukaryote

- Has Organelles – structures with specific functions and membranes isolating it from rest of cell
- Nucleus – largest organelle contains DNA and is boss of cell
- Example - Plants and Animals



A few organelles you need to know for today's lab...

- **Plasma membrane**- flexible boundary between the cell and its environment
- **Cell wall**- rigid structure located outside of the plasma membrane that provides additional support and protection. **Found in plant cells, fungi and bacteria
- **Cytoplasm**- clear, gelatinous fluid inside a cell



Comprehension Check

- What are the three components of the cell theory?
- What is the difference between a prokaryote and a eukaryote?
- Are bacteria prokaryotes or eukaryotes?
- Are plants and animals prokaryotes or eukaryotes?