

“Vinny Vocab”

Cytology

Study of the Cell



V

OC

AB

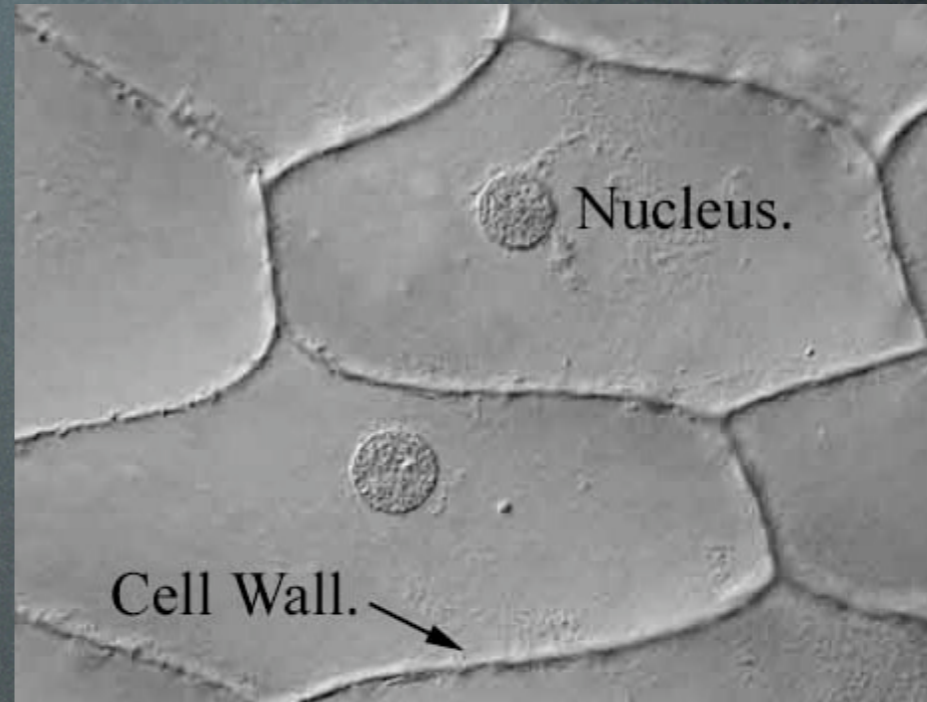
Look for
words that are red
like me! They make
great flash cards!

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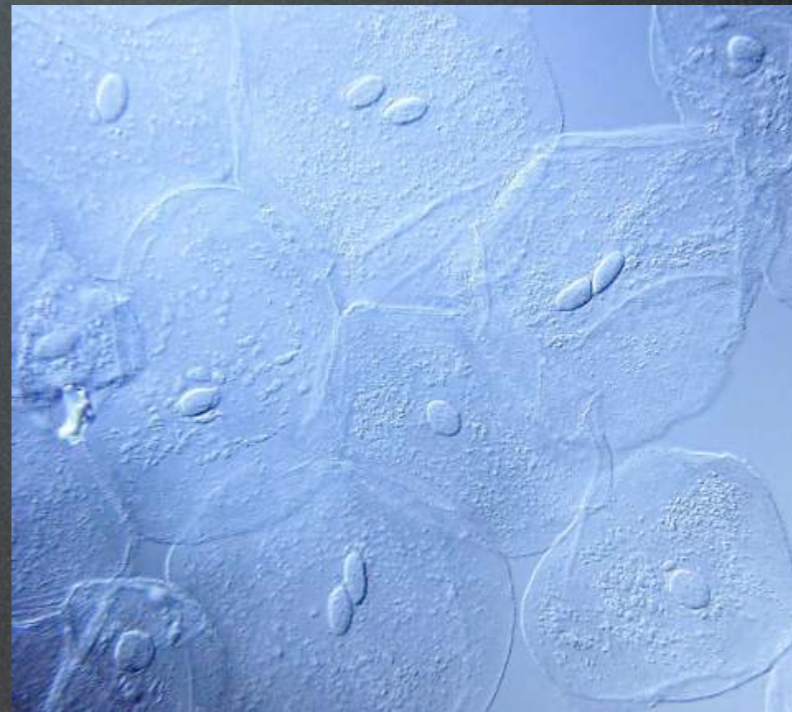
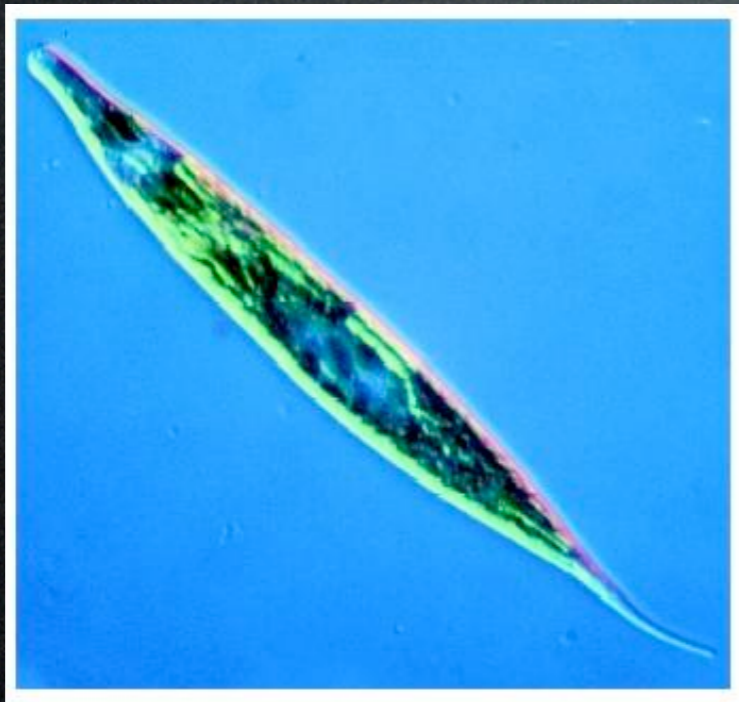
Cell Theory



- All living things are made up of one or more cells
- All cells come from other cells
- Cells are the basic living unit of structure and function in organisms

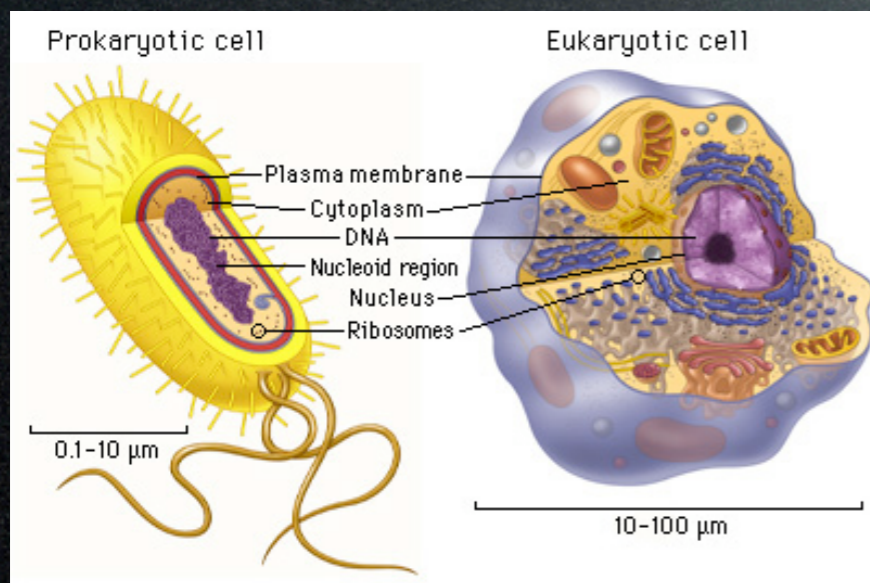
Cell Theory

- Many chemical reactions associated with life occur within the cell (Ex Protein Synth)
- Organisms may be **unicellular** (single celled) or **multicellular** (many cells)



Basic Cell Structure

- All cells consist of a number of components which include



- A **plasma (cell) membrane**
- A fluid interior called **cytoplasm**
- **Ribosomes**, which are used for protein synthesis
- Molecules such as Nucleic Acids (DNA, RNA, ATP), Lipids, Carbohydrates and Protein



2 Types of Cells

“Prokaryotic”

First/primitive Genetic Region





2 Types of Cells

“Prokaryotic”

First/primitive Genetic Region



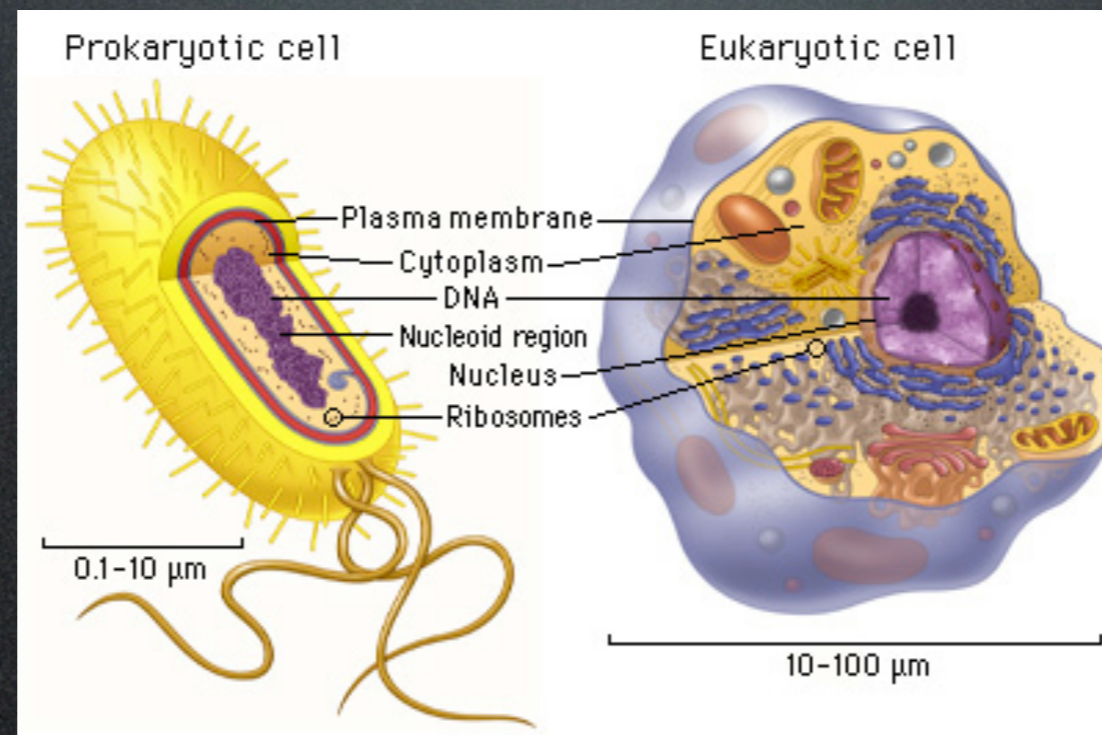
“Eukaryotic”

True/Developed Genetic Region



Prokaryotic Cells

- These are considered “simple cells”
- They do not have a nucleus and other membrane bound organelles





Prokaryotic Cells

- Organisms with these cells are found in the Kingdom **Monera** and include bacteria
- Since prokaryotes lack a membrane bound organelles they will not have a **Nucleus, Mitochondria, Endoplasmic Reticulum, Golgi or Lysosomes**



Prokaryotic Cells

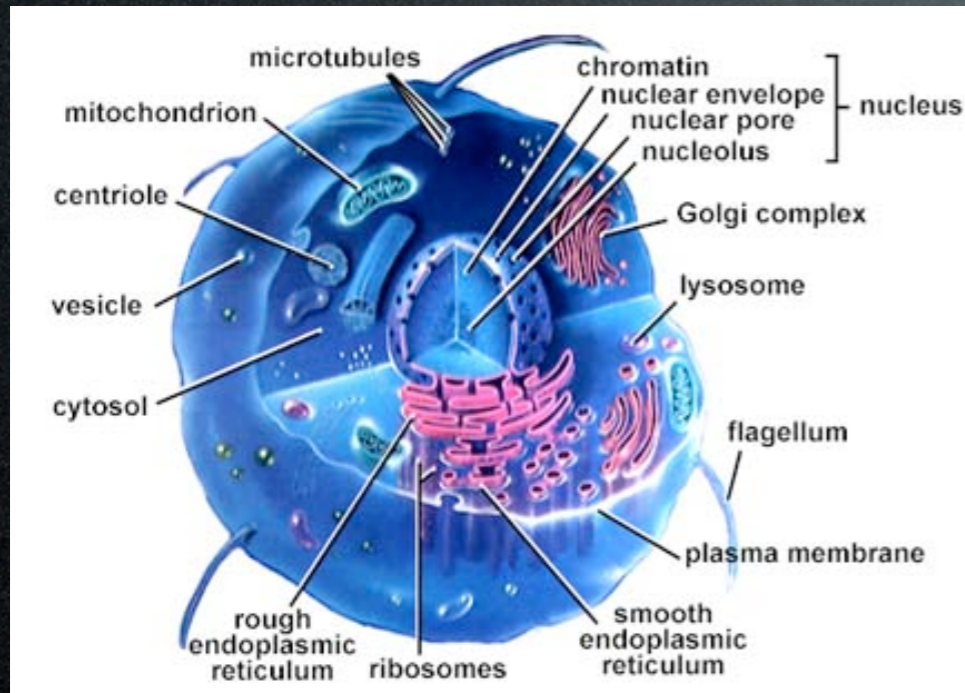
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Oooh!
Lots of them
there!

V
O
C
A
B

Eukaryotic Cells



- These are more complex than Prokaryotic Cells
- They have a nucleus and membrane bound organelles
- Eukaryotic organisms include members of the Kingdoms: **Protista, Fungi, Plantae and Animalia**

Eukaryotic Cells



- Since Eukaryotes have membrane bound organelles, they DO have mitochondria, ER, golgi, and lysosomes.
- Eukaryotic cells are usually larger than prokaryotic cells (makes sense, they got more stuff to cram in there).

Eukaryotic Cells

Those aren't in red
because we already
"red" them...get it..."red"
like "read" ...sigh



V
OC
AB

- Since Eukaryotes have membrane bound organelles, they DO have mitochondria, ER, golgi, and lysosomes.
- Eukaryotic cells are usually larger than prokaryotic cells (makes sense, they got more stuff to cram in there).

Group/Individual Activity

Refer to table 3.1 in your text, the diagrams on pg 50-51, and the reading in Section 3.2 to create a list of similarities and differences between plant cells and animal cells.