

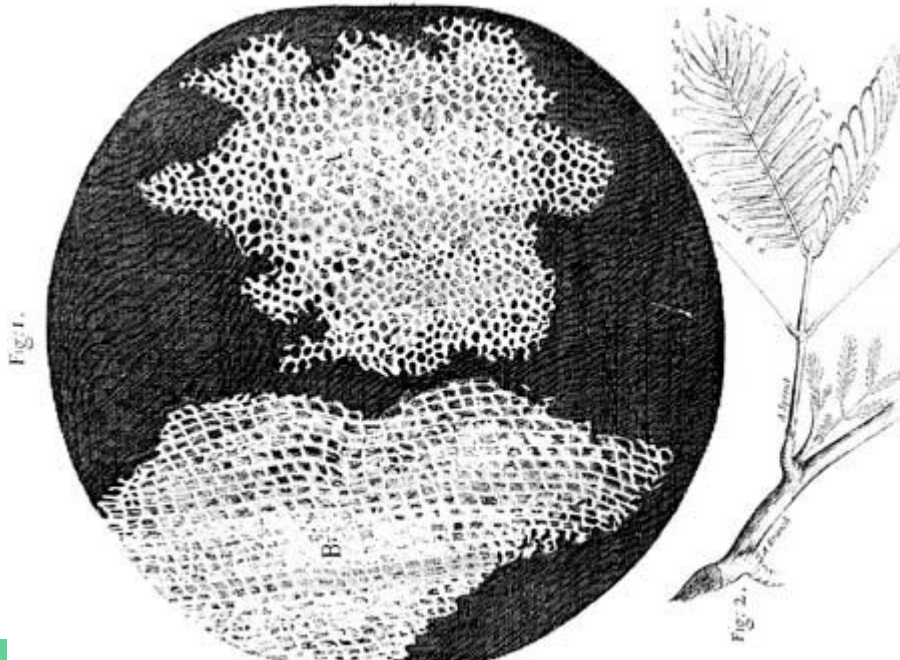
Cell Structure & Function



Chapter 7

The Discovery of the Cell

In the mid 1600s, scientists began to use microscopes to observe living things.



Early microscope

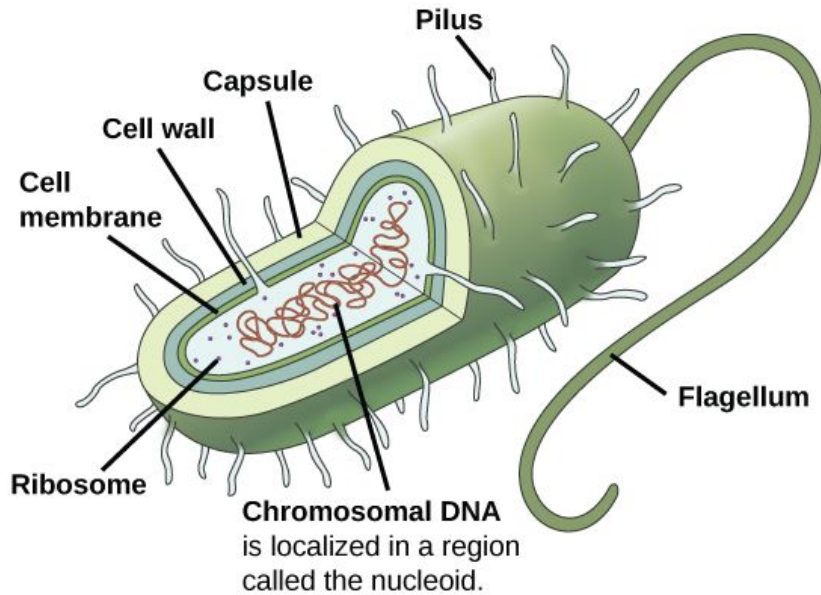


The Cell Theory:

- All living things are composed of cells
- Cells are the basic units of structure & function in living things
- New cells are produced from existing cells

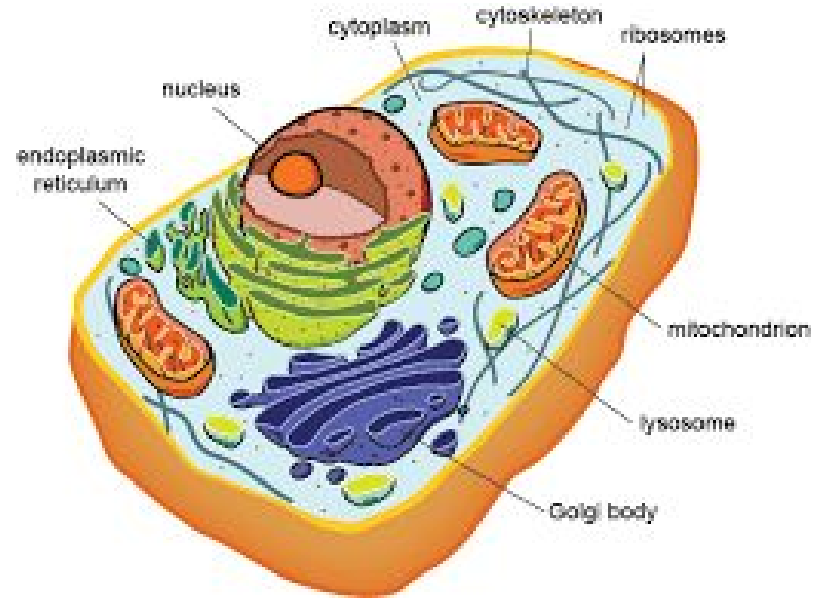
Prokaryotic cells:

Cells that *do not* have a nucleus



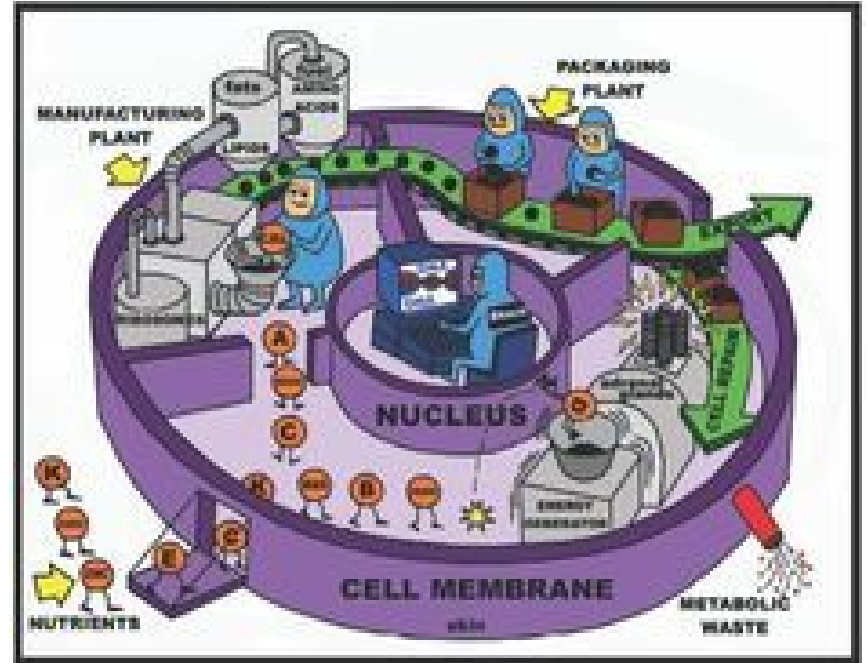
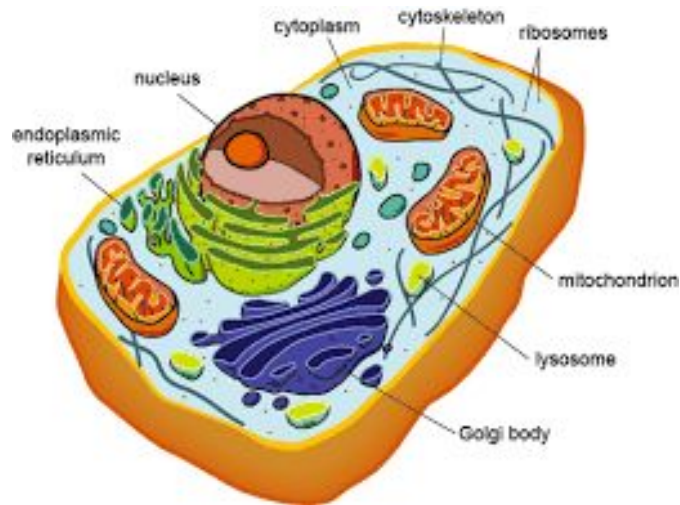
Eukaryotic cells:

Cells that have a nucleus



7.2 Eukaryotic Cell Structure

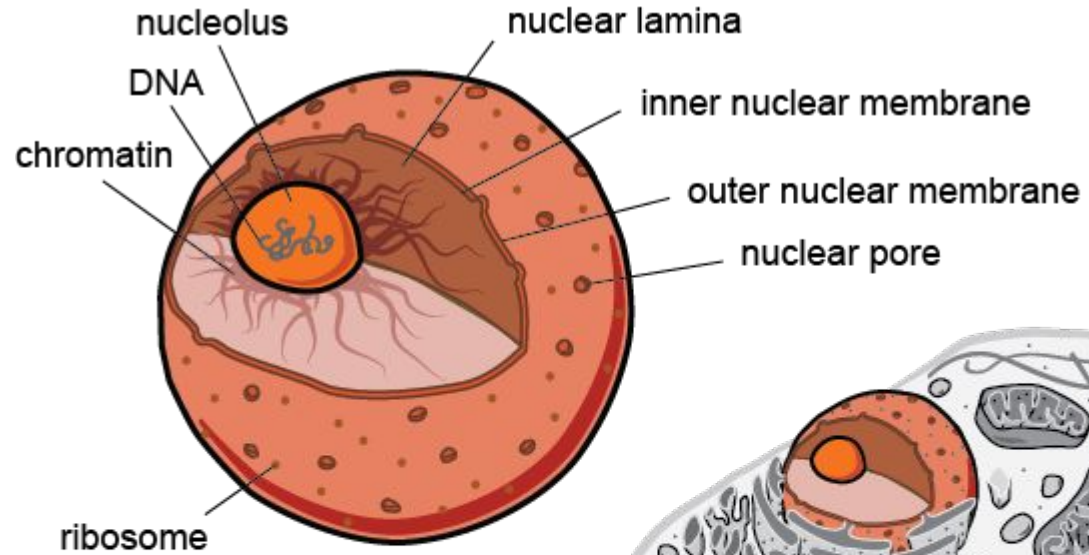
Organelles: “little organs” specialized structures, that carry out cell functions.



Cytoplasm: portion of the cell outside the nucleus

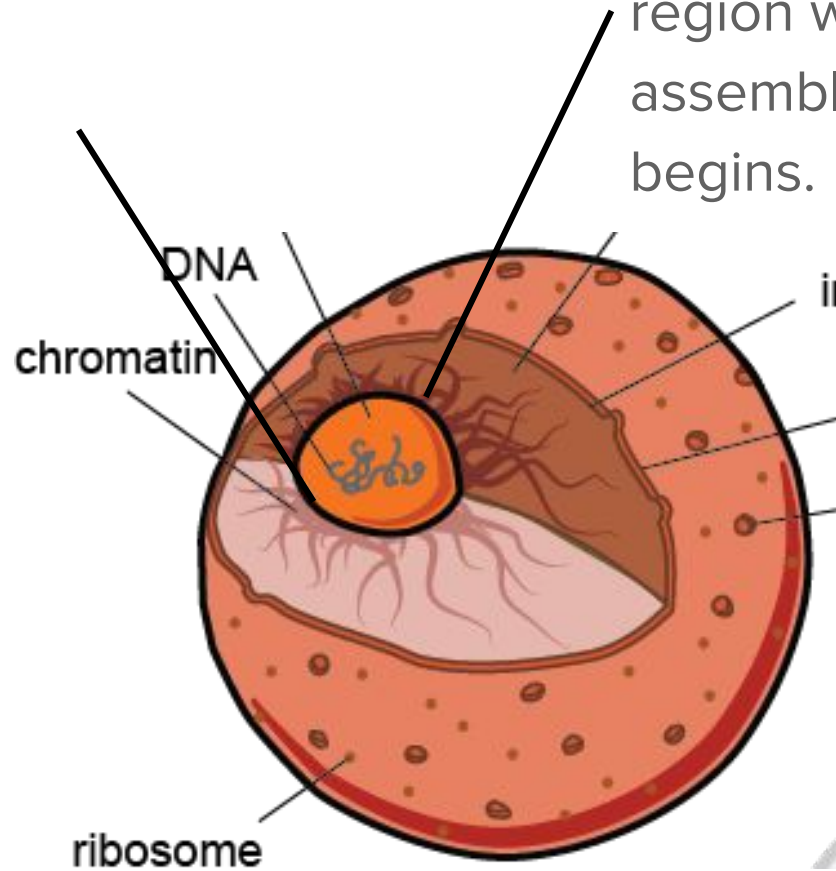
Nucleus: contains nearly all of the cell's DNA.

- **nuclear envelope:** contains the nucleus
- **nuclear pores:** holes covering the nuclear envelope which material moves through



Chromatin: granular material inside the nucleus, consists of DNA bound to proteins, condenses during cellular division

Nucleolus: small dense region where the assembly of ribosomes begins.



ribosome