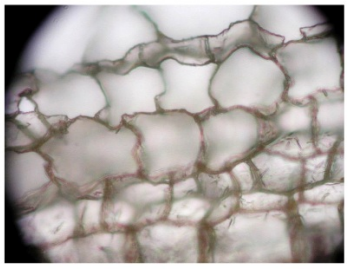
http://www.youtube.com/watch?v=gFuEo2ccTPA

Goal 1.1.2 - Cells

Background: The development of the microscope began the study of the cell.

Cells were too small to be seen before the microscope. In 1665, Robert Hooke looked at a slice of cork under a microscope and named the chambers that he saw cells.

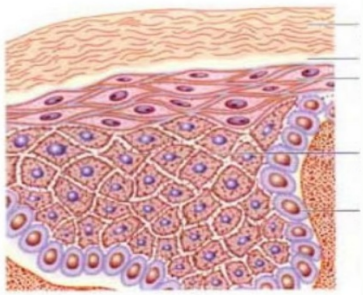


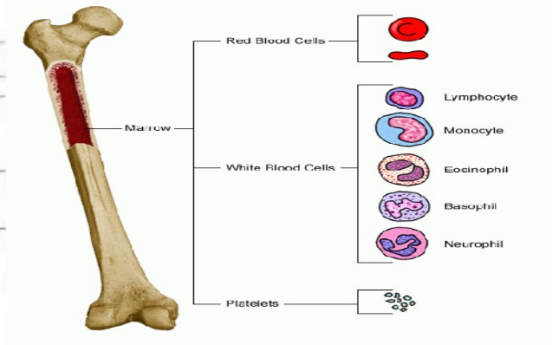
In 1674, Anton van Leeuwenhoek used a microscope to observe pond water (and other things) and saw microscopic living things.

Goal 1.1.2 - Cells

Cell Theory:

1. All living things are composed of cells
2. Cells are the smallest unit of structure in living things
3. New cells are produced by existing (old) cells



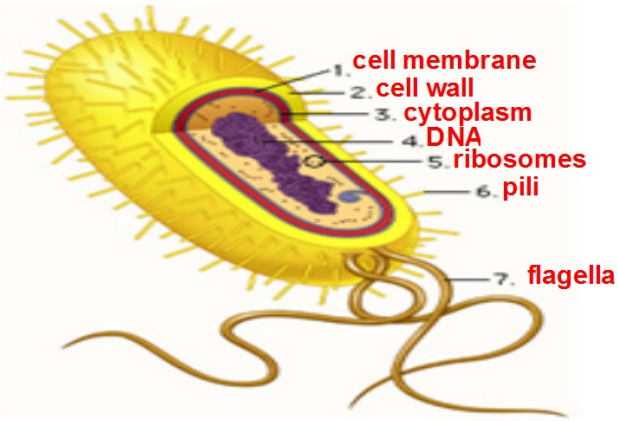


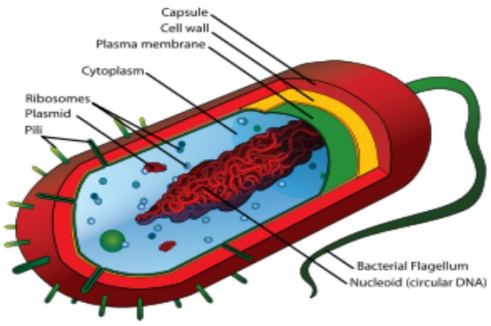
Goal 1.1.2 - Cells

Characteristics: Bacterial Cell

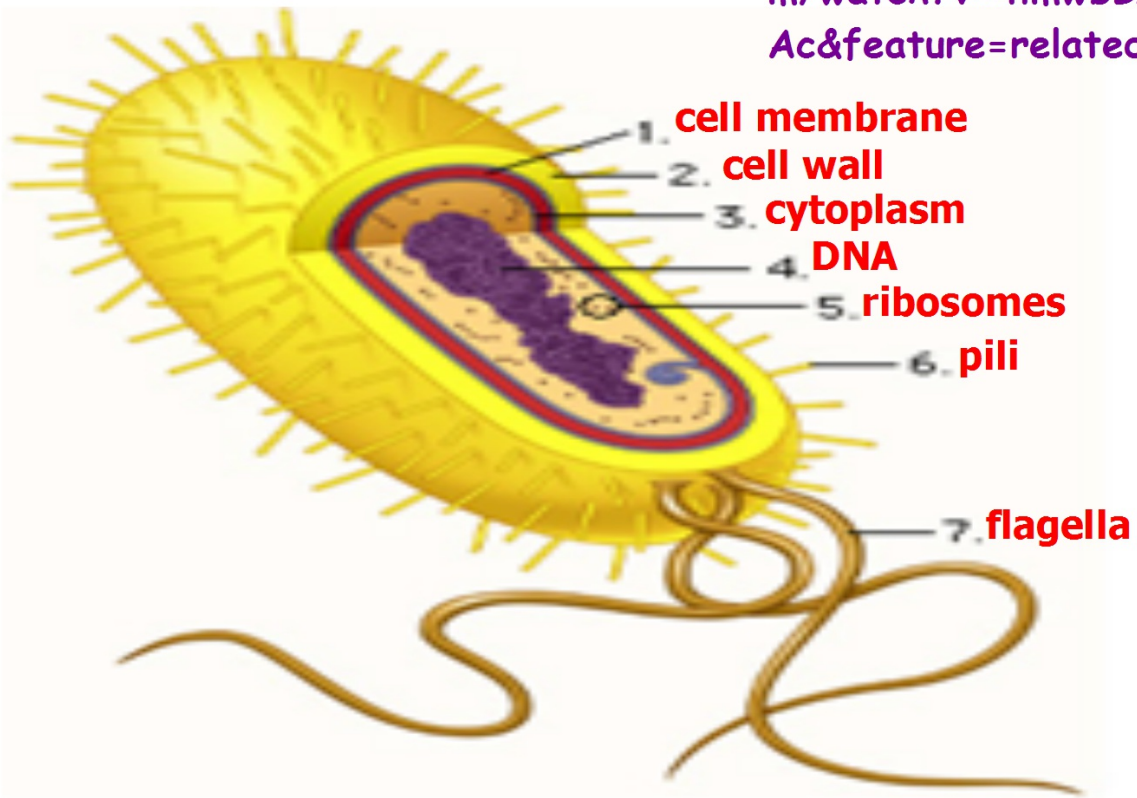
- -NO nucleus
- -NO membrane bound organelles
- -Simple, small cells
- -Includes: Plasmids (smaller rings of DNA), and ribosomes (protein synthesis)

Cell Type: Prokaryote





http://www.youtube.com/watch?v=4lmwbBzClAc&feature=related



Goal 1.1.2 - Cells

Characteristics: Plant Cell

-nucleus with chromosomes

-membrane bound organelles and ribosomes

-chloroplasts (photosynthesis), cell wall, and large vacuole

Cell Type:

Eukaryote

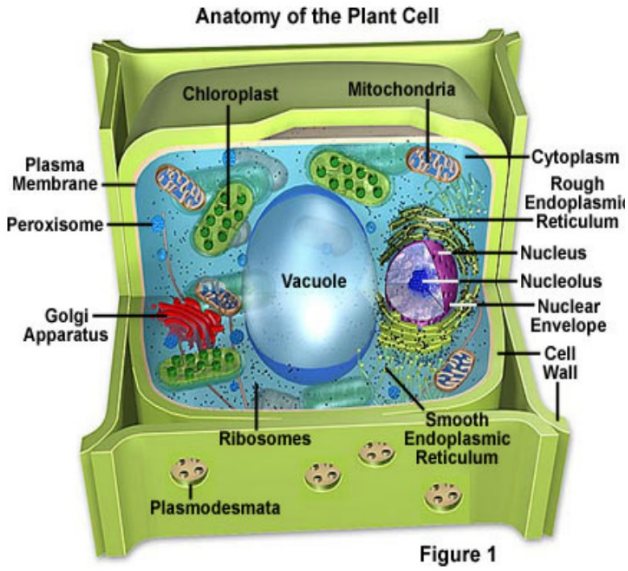


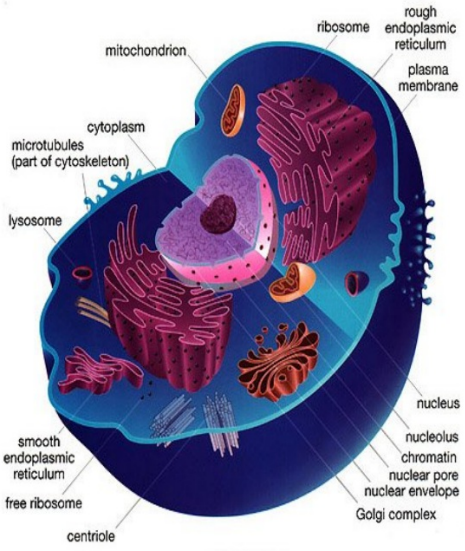
Figure 1

Goal 1.1.2 - Cells

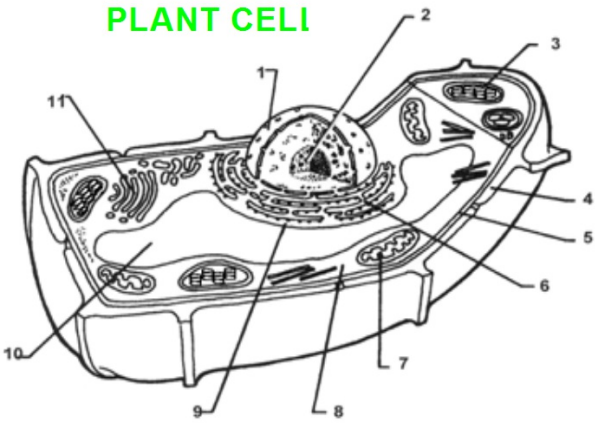
Characteristics: Animal Cell

- -nucleus with chromosomes
- -membrane bound organelles and ribosomes
- -centrioles for cell division
- -Example: Animals, Fungi, Protists

Cell Type: Eukaryote



PLANT CELl



1. nucleus
2. nucleolus
3. chloroplast
4. cell wall
5. cell membrane
6. rough ER
7. mitochondria
8. cytoplasm
9. ribosomes
10. vacuole
11. golgi

ANIMAL CELl

1. cytoplasm
2. cell membrane
3. golgi
4. mitochondria
5. nucleolus
6. small vacuole
7. nucleus
8. rough ER