

CELLS

Cells are the basic building blocks of all living things.

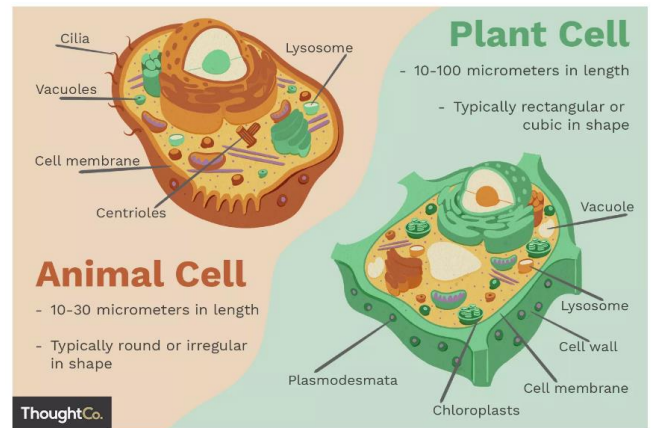
EUKARYOTIC AND PROKARYOTIC

Difference	Eukaryotic	Prokaryotic
Cell Type	Multicellular	Unicellular
Example	Animals and Plants	Bacteria and Archaea
Nucleus	Present	Absent
Lysosome and Peroxisome	Present	Absent
Mitochondria	Present	Absent
Endoplasmic Reticulum	Present	Absent
Ribosomes	Larger	Smaller
Chloroplast	Present	Absent
Golgi Apparatus	Present	Absent
Cell Wall	Found in plant cells and fungi	Has complex structure
Vacuole	Present	Present

UNICELLULAR AND MULTICELLULAR

Unicellular	Multicellular
Made of one cell	Made of more than one cell
Simple body organization	Complex body organization
Single cell performs all life functions (eat, produce, rid wastes, move)	Specialized cells perform different life functions (i.e. Nerve cells)
Includes eukaryotes and prokaryotes	Includes only eukaryotes
Example – amoeba, bacteria	Example – humans

PLANT CELL VS. ANIMAL CELL



Organelle	Plant Cell	Animal Cell
Size	10 – 100 micrometers in length	10 – 30 micrometers in length
Shape	rectangular or cubic	round or irregular
Cilia	present	absent
Plasmodesmata	present	absent
Chloroplast	present	absent
Cell Wall	present	absent
Centrioles	absent	present
Lysosome	present	present
Vacuoles	present	present
Cell Membrane	present	present

Animal cells and plant cells are similar in that they are **both eukaryotic cells**.