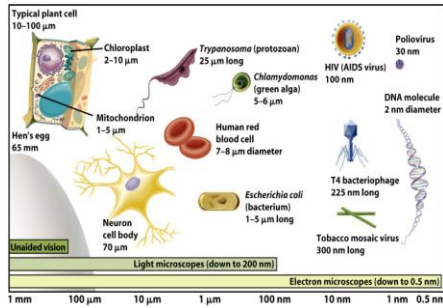


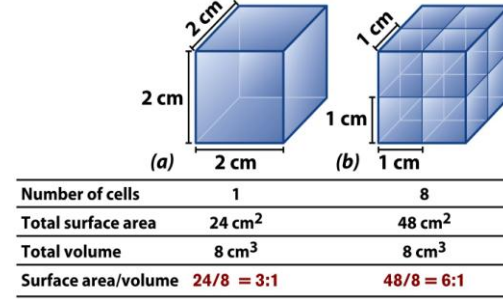
Unit 2: Cell Parts and Organelles

Guided Notes

Cell Size



Cells Have Large Surface Area-to-Volume Ratio



Characteristics of ALL Cells

- A protective membrane (cell membrane, plasma membrane)
- _____ (cell parts and fluid called cytoplasm)
- _____ (structures for cell function)
- _____
- _____

Types of Cells

- _____ and _____

What each cell has:

Prokaryote

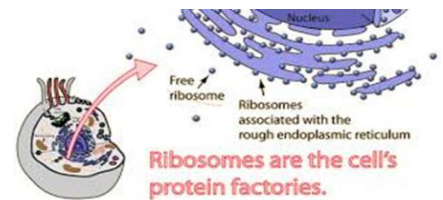
- _____
- Plasma Membrane
- Ribosomes
- _____
- Cytoplasm
- Cilia/flagella

Eukaryote

- _____ w/ DNA
- Plasma membrane
- _____
- Cell wall (plant)
- Cytoplasm
- _____
- Large vacuole (plant)
- _____ (plant)
- Cilia/flagella (animal)

Ribosomes

- In Prokaryotes and Eukaryotes
- Made of RNA and proteins (rRNA)
- Sites of protein synthesis
 - **Proteins are the main product produced by the cell**



Prokaryotes

- _____ cells
- _____ and small
- Bacteria only
- No nucleus
- Have _____!

Eukaryotes

- _____ contains DNA
- Everything but bacteria
 - Plants, animals, fungus, protists
- Membrane-bound organelles
 - Specific activities
 - Advantages
 - _____
 - _____

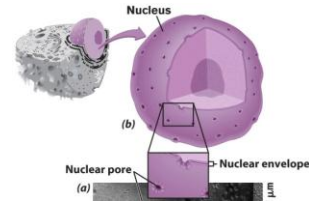
Unit 2: Cell Parts and Organelles
Guided Notes

Cytoplasm

- Fluid containing organelles
- Components of cytoplasm
 - Fluid = _____
 - Organelles (not nucleus)
 - Storage substances

Nucleus

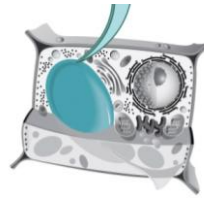
- Control center of cell
- Double membrane
- Contains
 - _____ (in the form of chromosomes)
 - _____ (makes ribosomes)



DNA

- _____
- Instructions to produce amino acids which link together to make _____!
- Chromosomes
 - DNA
 - Proteins
 - Form for cell division

- Chromatin
 - _____ DNA

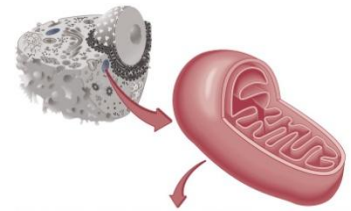


Vacuoles

- _____
- Bigger in plants than animals
 - Central vacuole
 - Provide turgid pressure
 - If plant is without water, the central vacuole will shrink and cause the plant to _____
- Contents
 - _____
 - Food
 - wastes

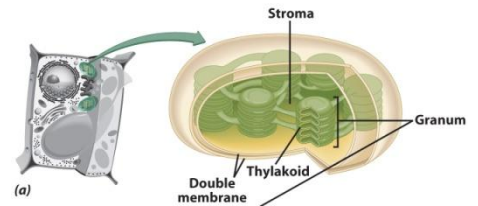
Mitochondria

- Have their own DNA
- Bound by double membrane
- Breakdown food molecules
 - Powerhouse
 - _____
 - _____
 - Releases cellular energy
 - _____



Plants Only: Chloroplasts

- Site of _____
 - Solar energy to food (glucose)
 - Filled with _____ (makes it green)



Cell Walls

- Found in plants, fungi, & many protists
 - Plants – mostly _____
 - Fungi – contain _____
- Surrounds cell membrane
- _____ and support
- Also found in _____ (made of peptidoglycan)