

Warm-up: write the questions and answers in your notebook

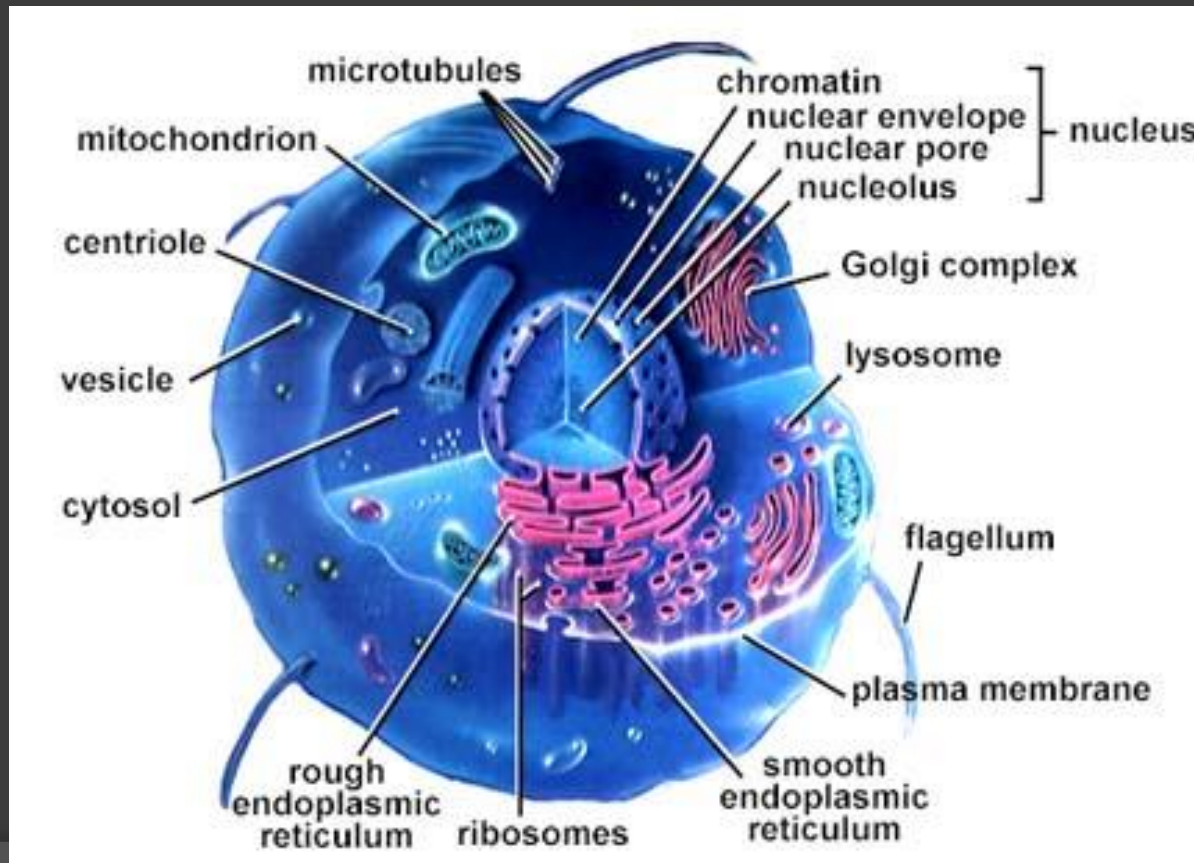
1. T or F: Eukaryotes are smaller and simpler than Prokaryotes
2. What special type of DNA do prokaryotes have?
3. What are two MAJOR differences between prokaryotes and eukaryotes?

# Warm-up: **Answers**

1. T or F: Eukaryotes are smaller and simpler than Prokaryotes **False- that describes prokaryotes**
2. What special type of DNA do prokaryotes have? **Circular DNA called plasmids**
3. What are two MAJOR differences between prokaryotes and eukaryotes?
  - **Prokaryotes do NOT have a nucleus or membrane-bound organelles, eukaryotes do**

# Cell Structure:

- Organelles – specialized structures

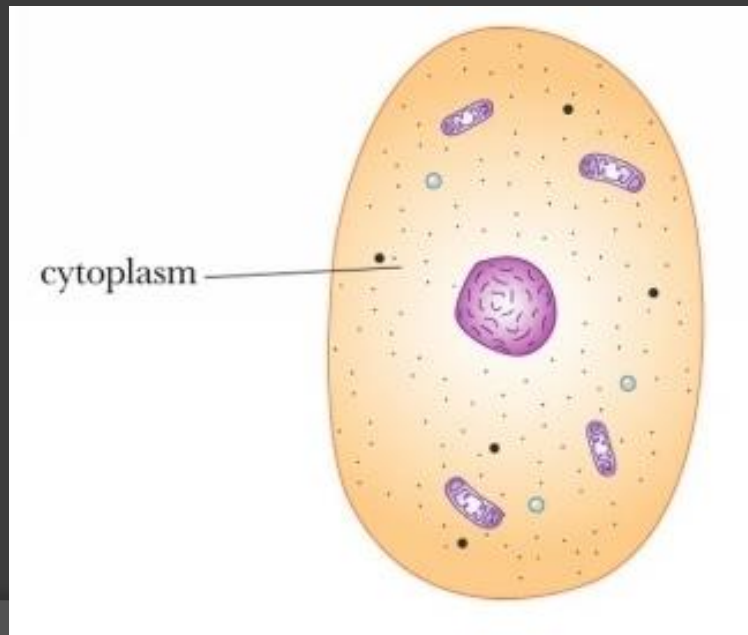


# Structures found in ALL Cells:

1. DNA
2. Cytoplasm
3. Ribosomes
4. Cell membrane

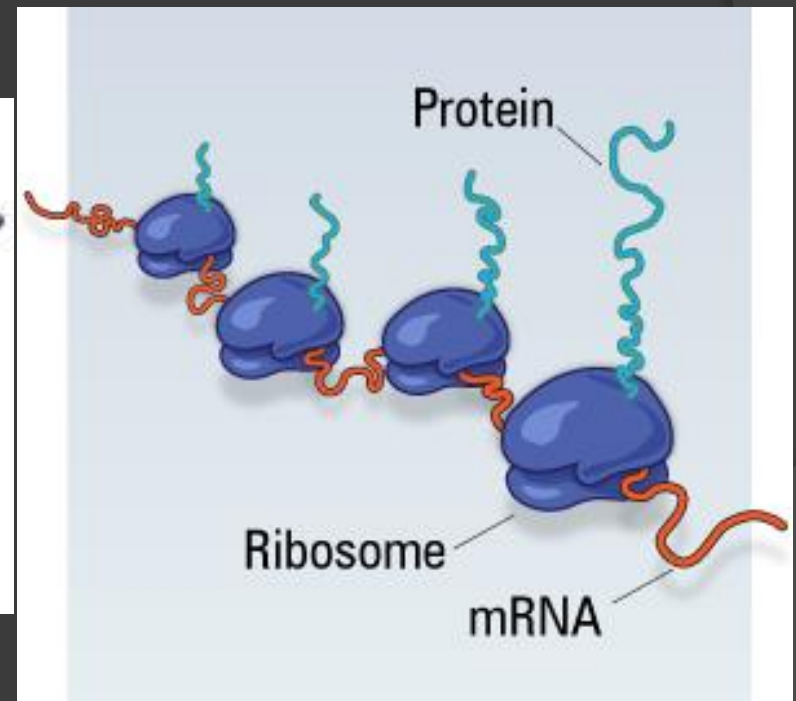
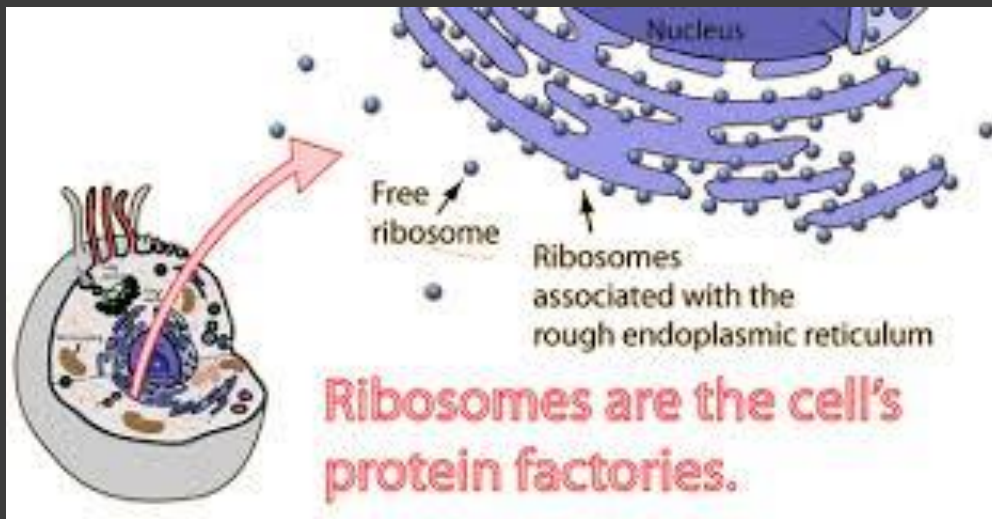
# Cytoplasm - ALL cells

- Filling of the cell and made up of 90% water
- Function – water provides necessary environment for all chemical reactions



# Ribosomes – ALL cells

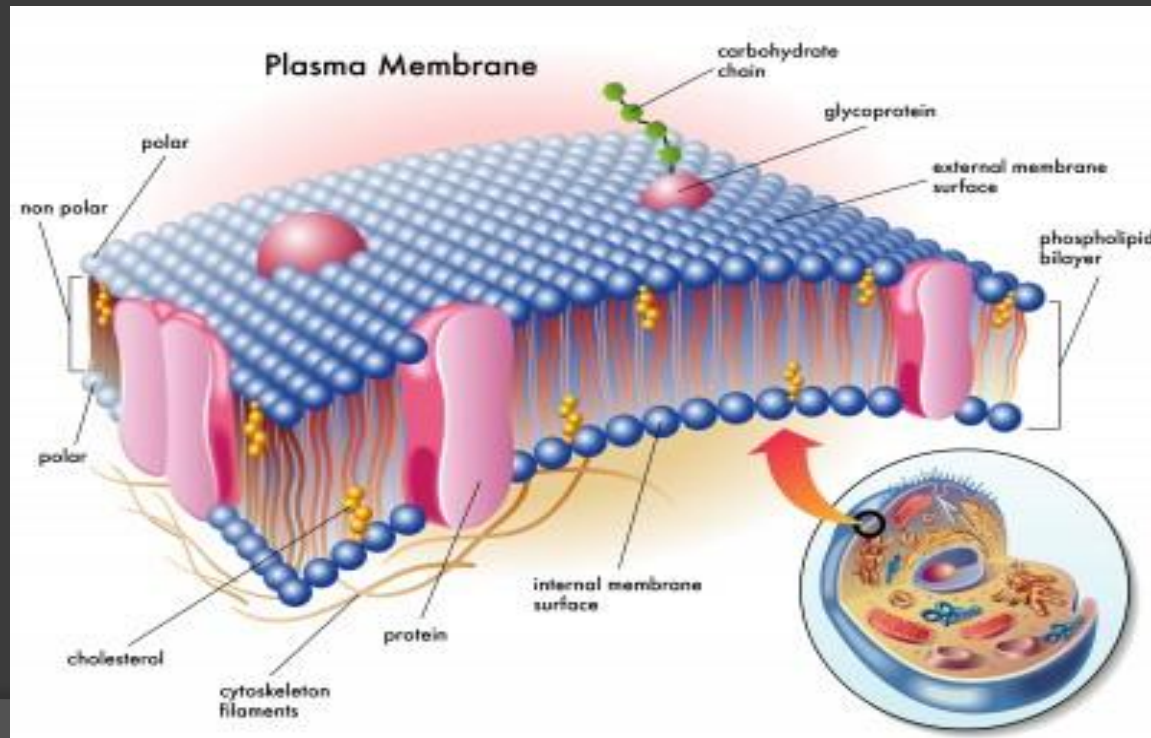
- Site of protein synthesis (make/build proteins)



# Cell Membrane (Plasma membrane)

– ALL cells

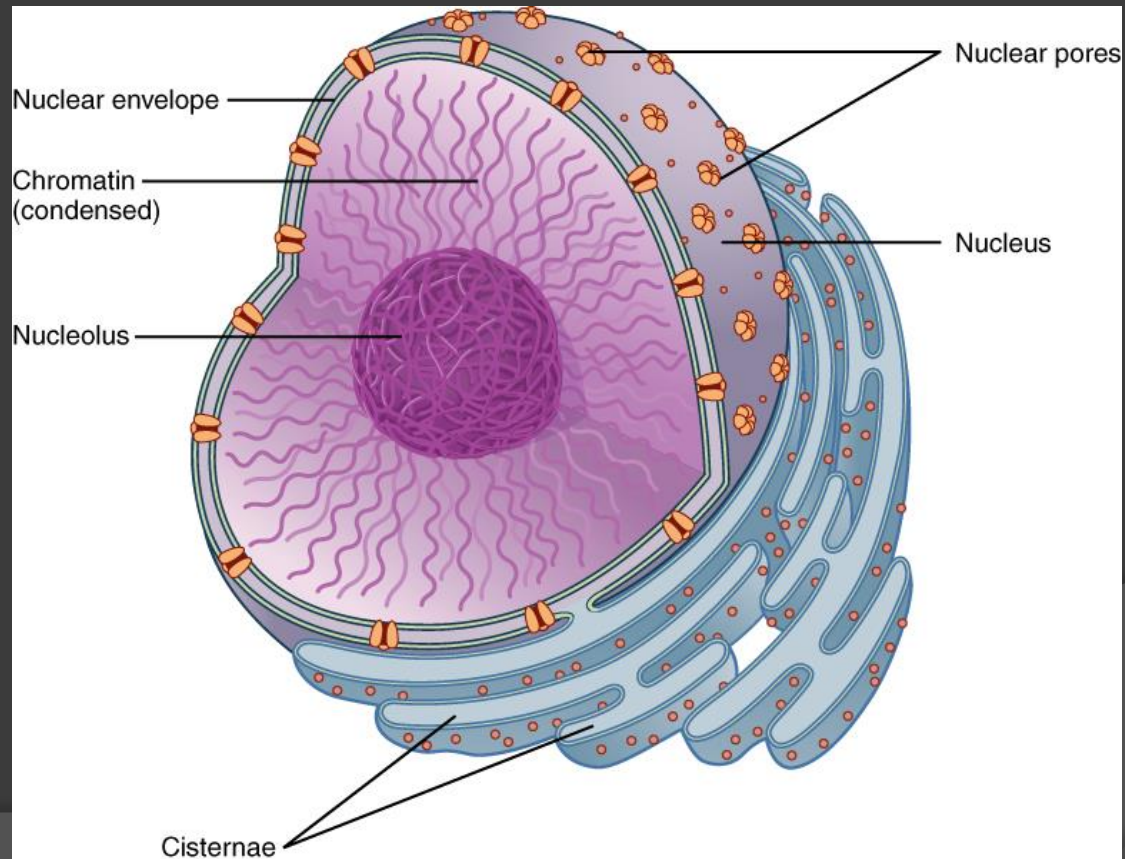
- Structure around the cell
- Function – gives cell its shape and regulates what enters and leaves the cell





# Nucleus – Eukaryotic Cells only

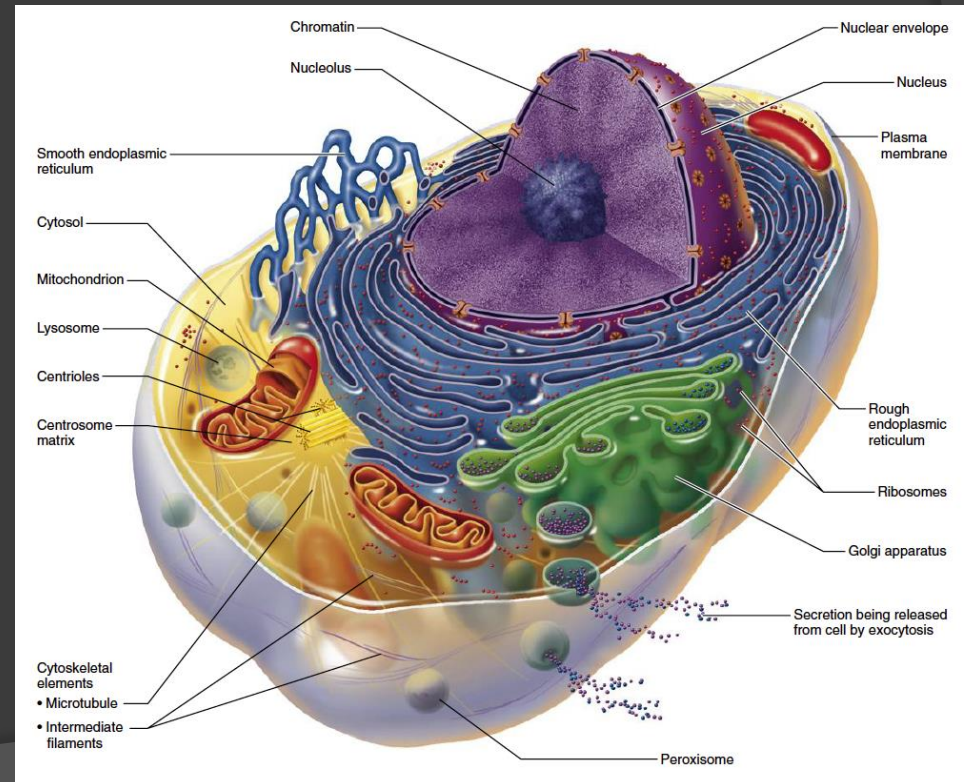
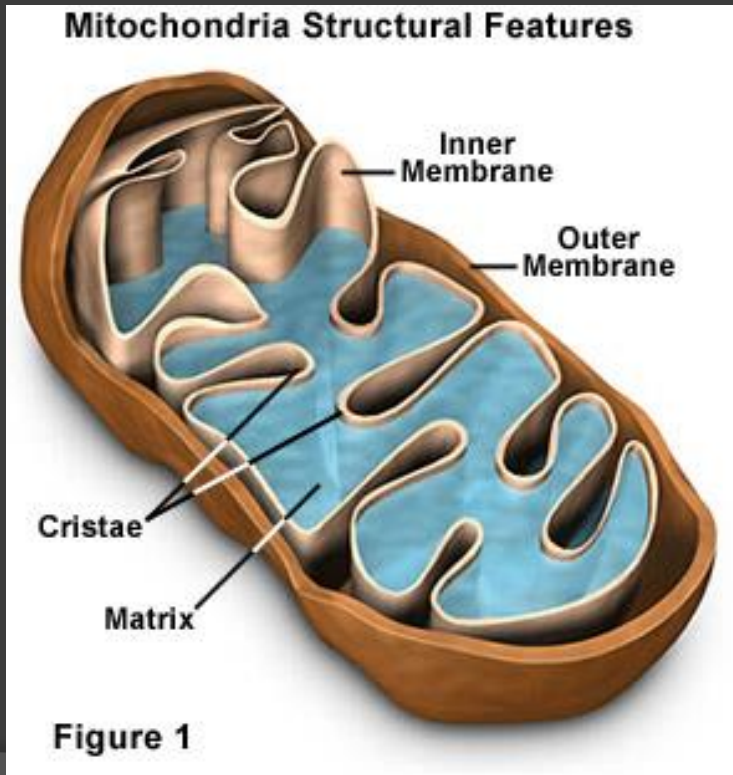
- Function - Surrounds chromosomes for protection, stores genetic material





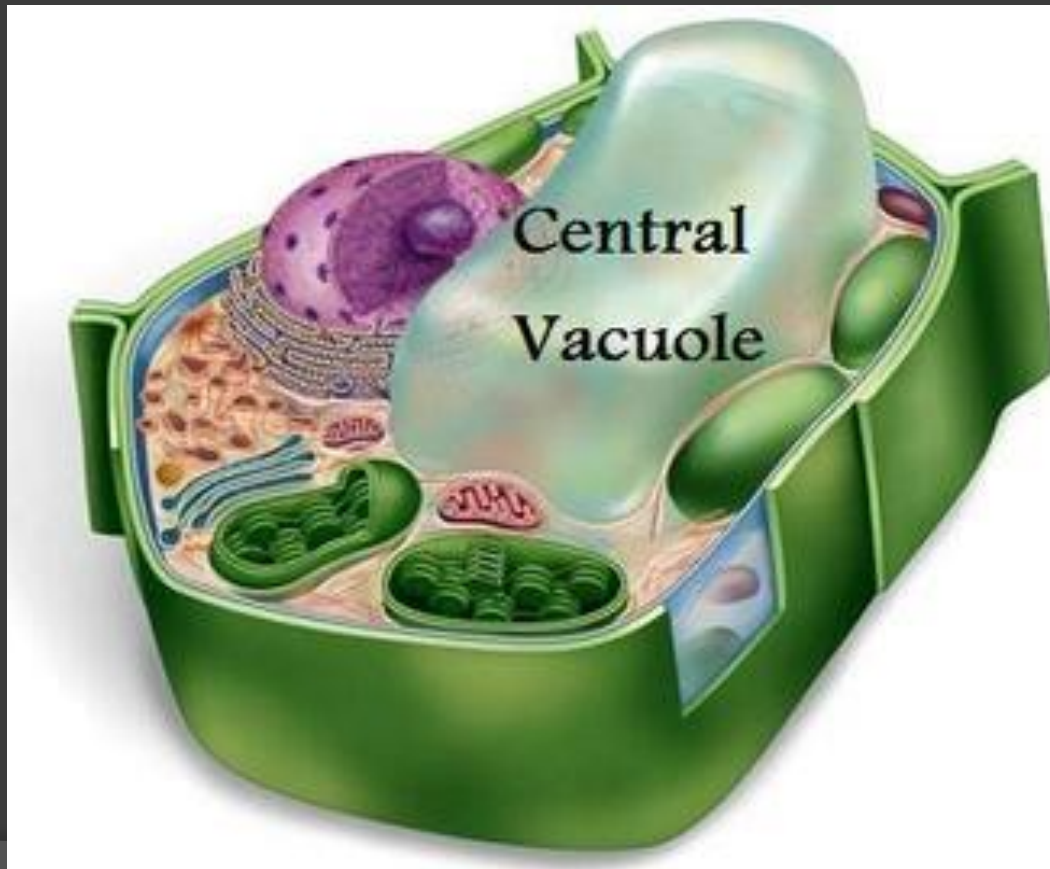
# Mitochondria – Eukaryotic Cells Only

- Function – site of cellular respiration
  - = ENERGY PRODUCTION (ATP)



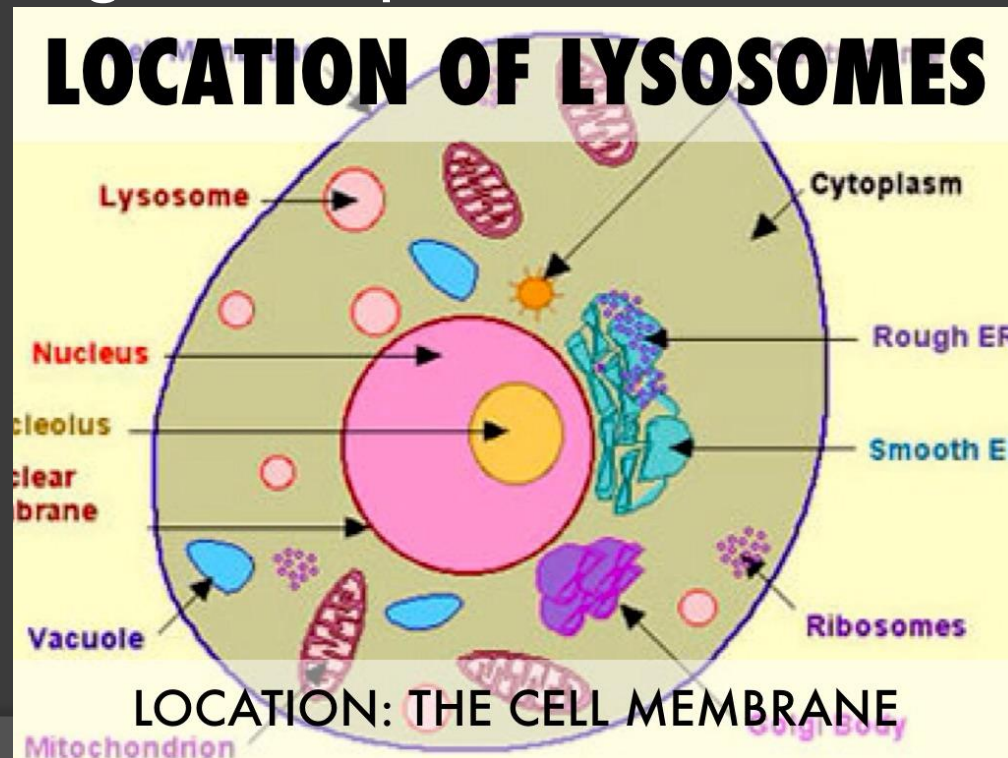
# Vacuole – Eukaryotic Cells only

- Function – store food, waste disposal



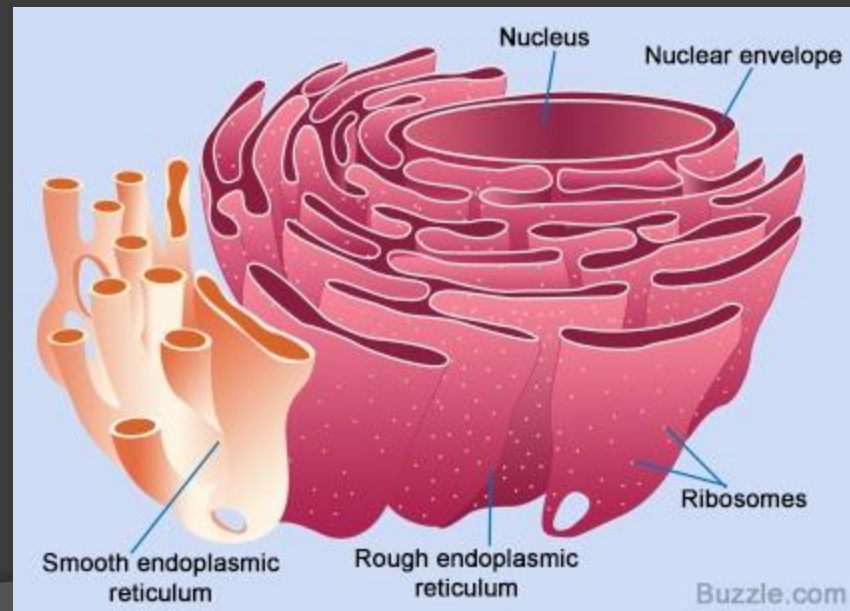
# Lysosome – Eukaryotic Cells only

- Contain digestive enzymes
- Function – digest food in vacuoles or old/damaged cell parts



# Endoplasmic Reticulum (ER) – Eukaryotic Cells only

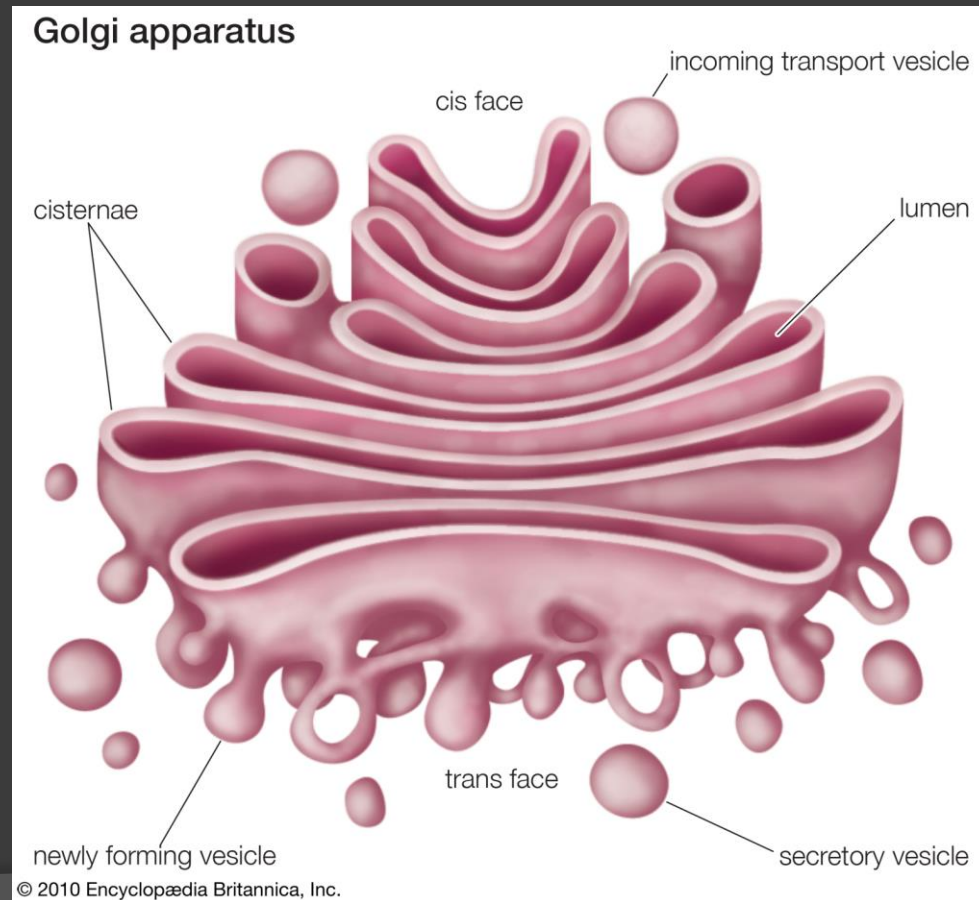
- Series of interconnected folded membranes
- Function – modifying proteins, detoxification of alcohols, and communication





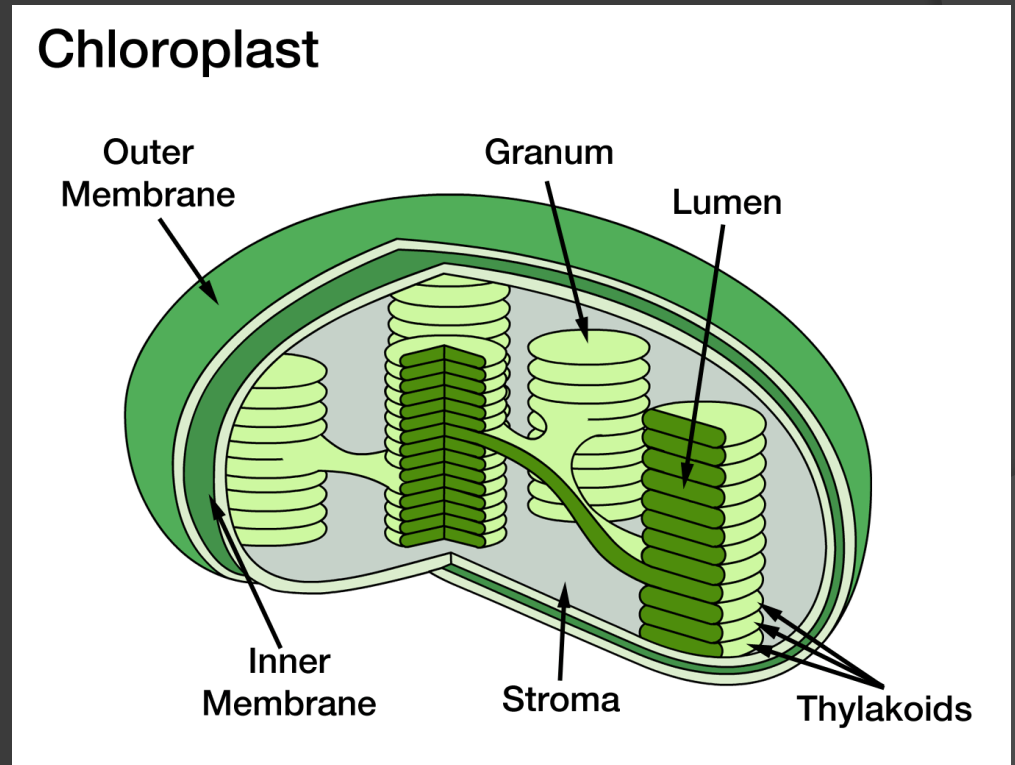
# Golgi Complex – Eukaryotic Cells only

- Function – packages materials for export



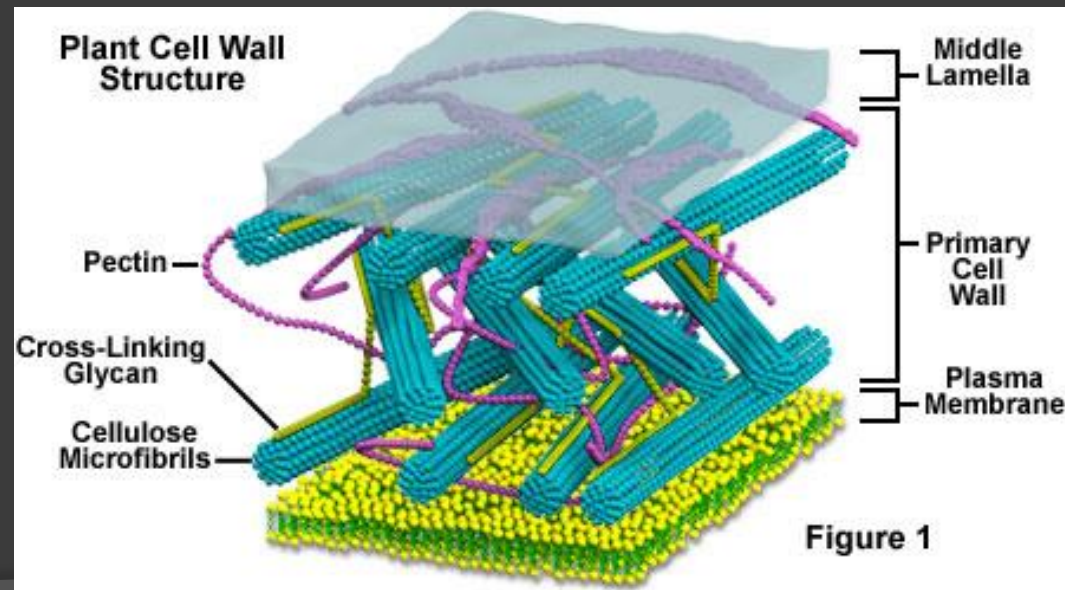
# Chloroplast – Plant cells only

- Function – contain chlorophyll, site of photosynthesis



# Cell Wall – Plant Cells only

- Function – support, protection, and shape for the cell
- Found outside cell membrane and is made of cellulose





# Centrioles – Animal Cells only

- Function – helps with cell division

