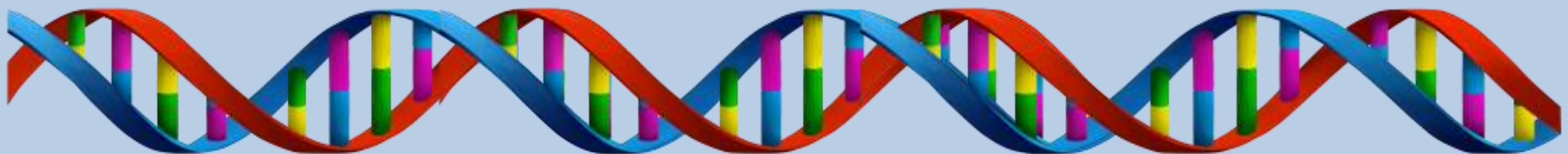
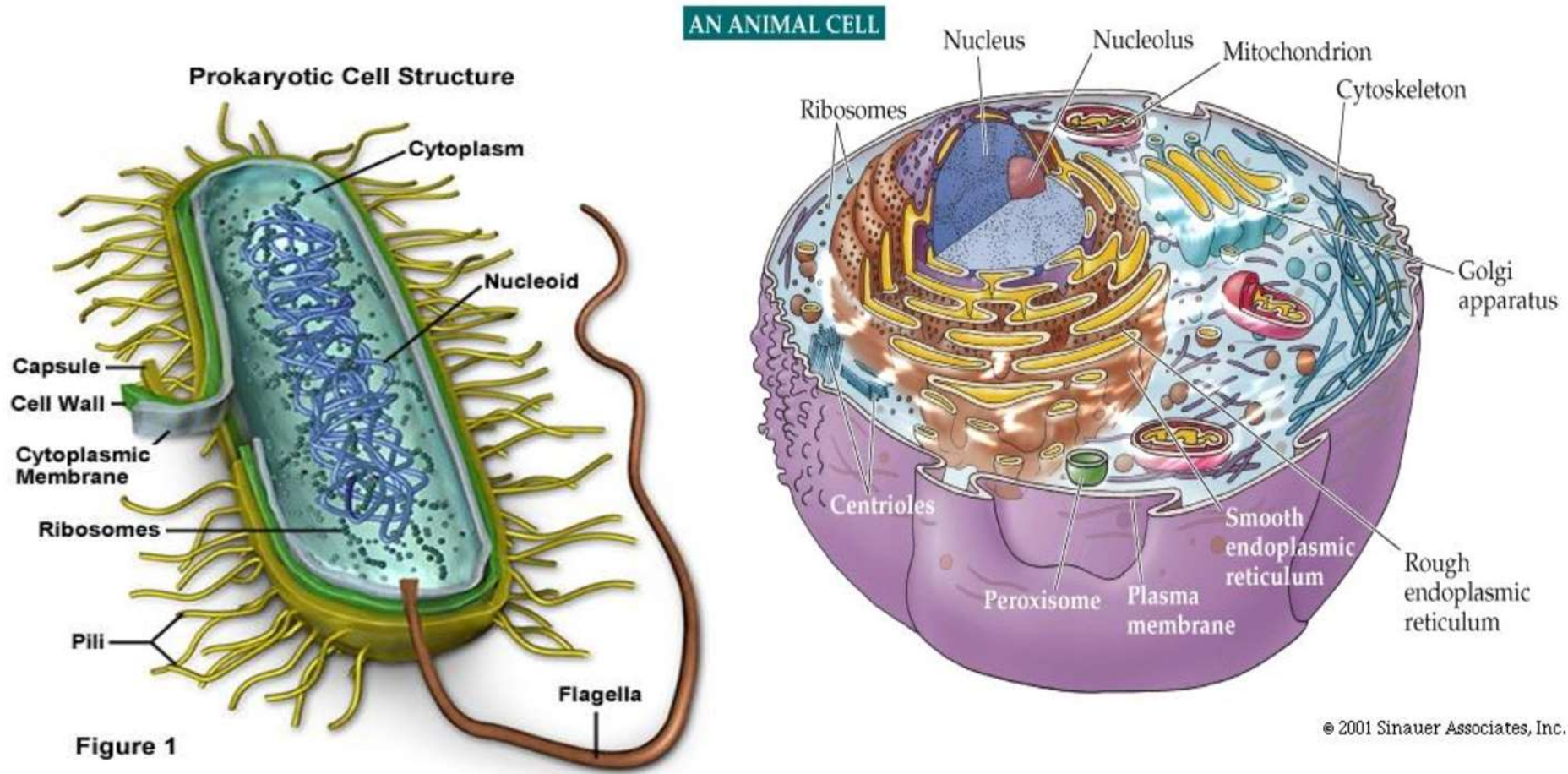


1. What are the two kinds of cells?
2. What are differences between these two cell types?
3. How is a cell a system?
4. What are the “support beams” of a cell?
5. **WHY** is the mitochondria the “powerhouse” of the cell?
6. What do the “workers” of the cell make?



Prokaryotic vs Eukaryotic



Egg Lab

- Next week we are start a lab using eggs
- When dismissed:
 - Get with a lab group of 4
 - Decide who is bringing in at least one egg for your group

Comparing Cell Structures

- **Get out the interactivity!**

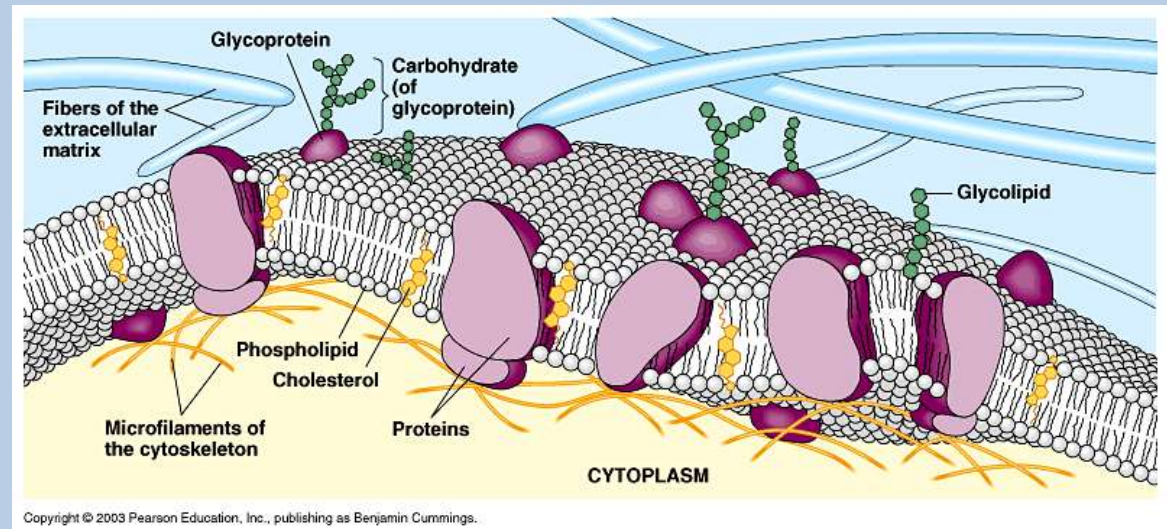
BRAIN BREAK

- **Which 6 organelles give every eukaryotic cell structure and security?**

Build a Factory

- Important Part:

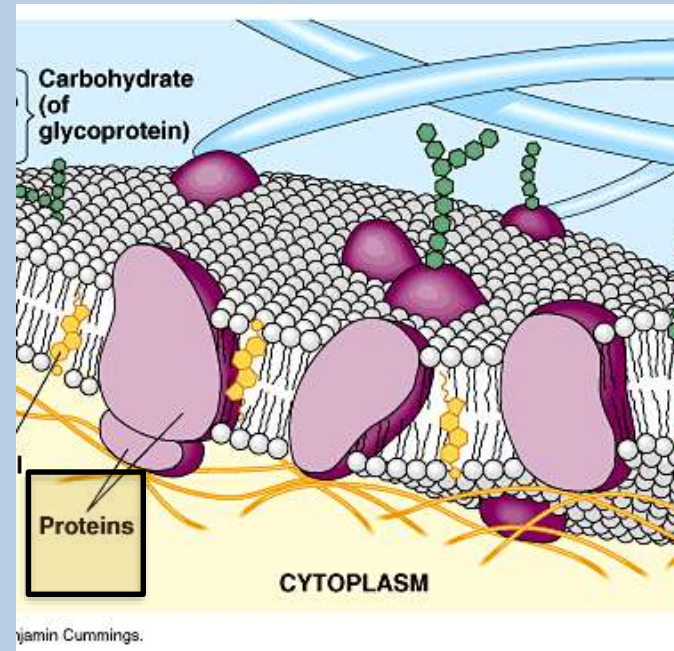
SECURITY PERIMETER = CELL MEMBRANE



Build a Factory

- Important Part:

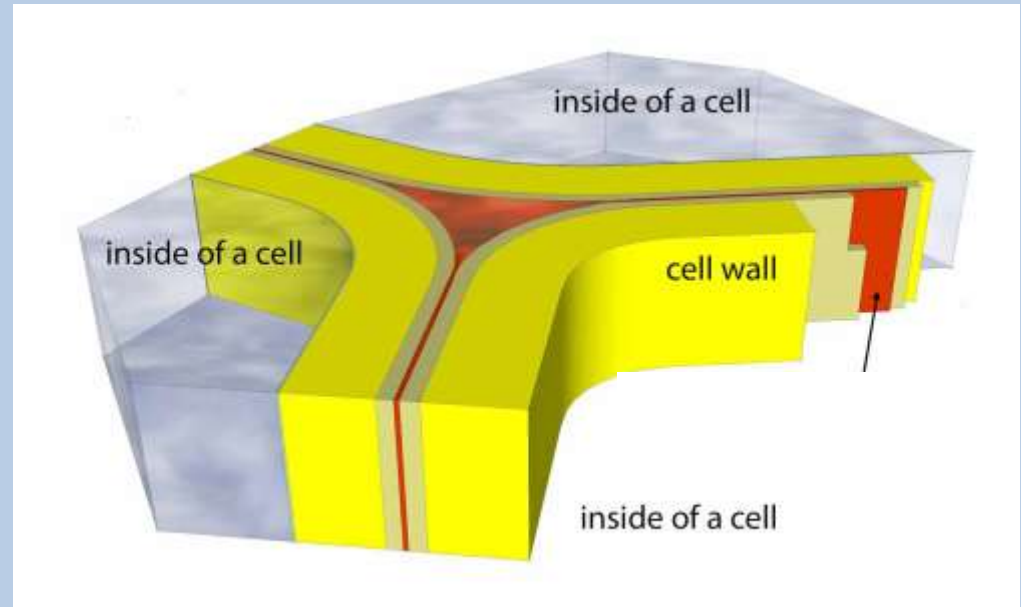
DOORS = MEMBRANE PROTEINS



Build a Factory

- Important Part:

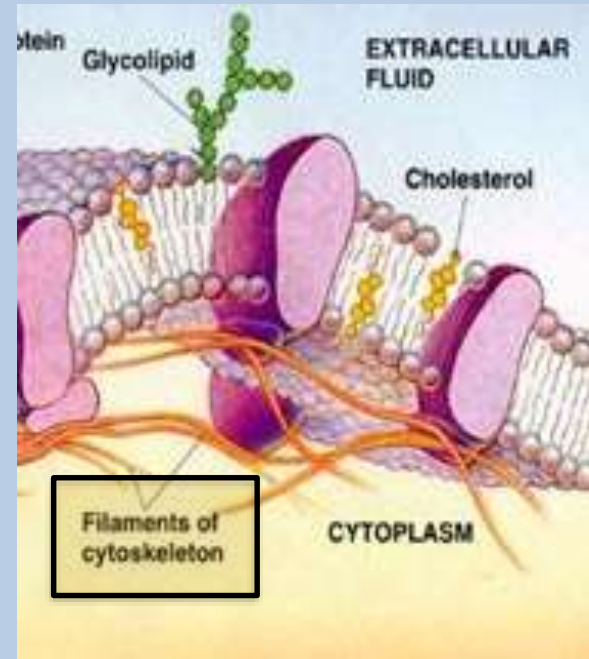
WALLS = CELL WALL



Build a Factory

- Important Part:

SUPPORT BEAMS = CYTOSKELETON



Build a Factory

- Important Part:

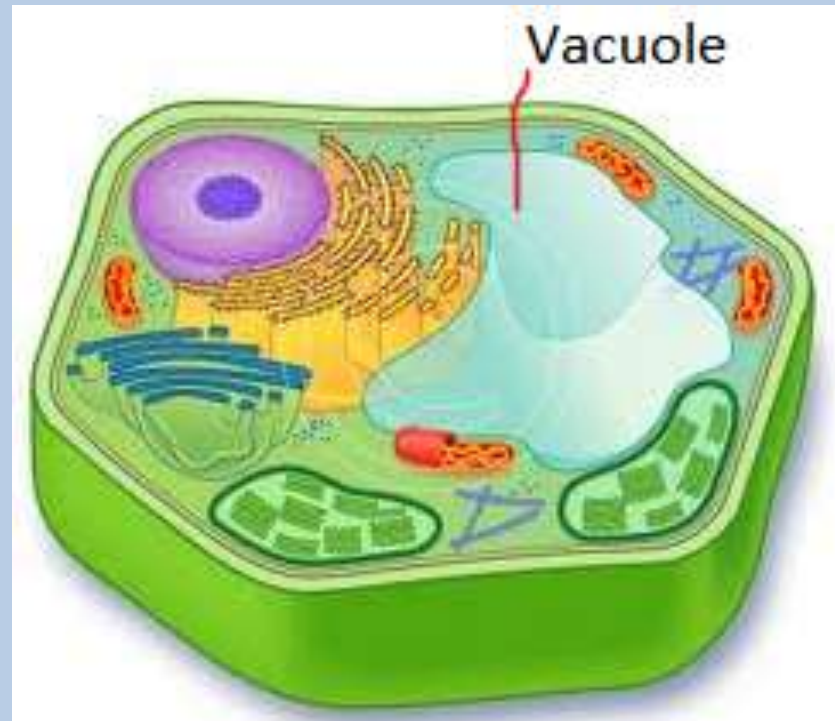
SECURITY GUARDS = LYSOSOMES



Build a Factory

- Important Part:

STORAGE = VACUOLES

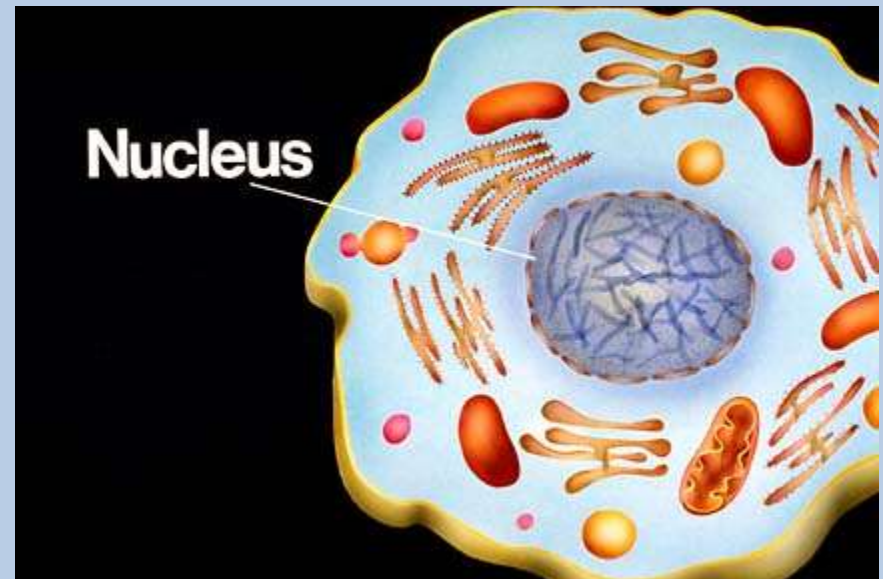


BRAIN BREAK

- Which 3 things give every eukaryotic cell instructions?

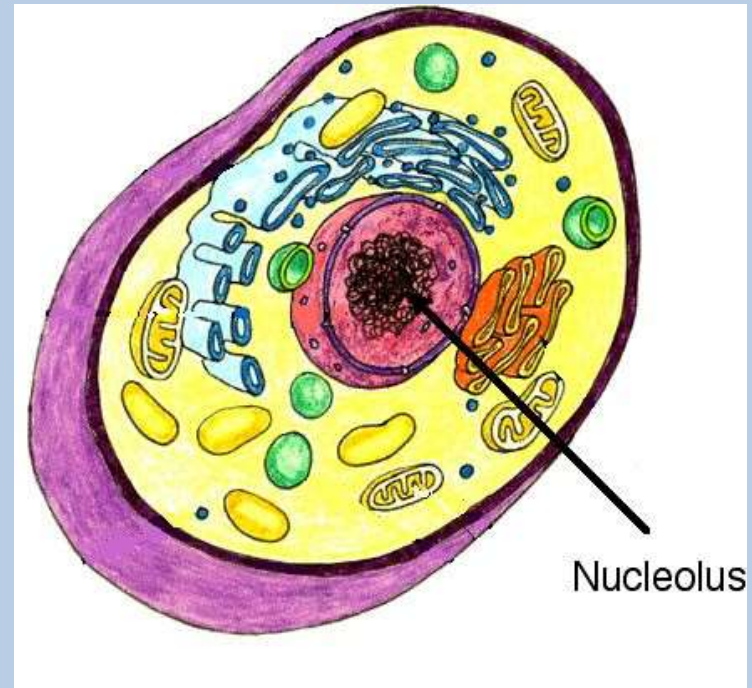
Build a Factory

- Important Part:
MANAGER OFFICE = NUCLEUS



Build a Factory

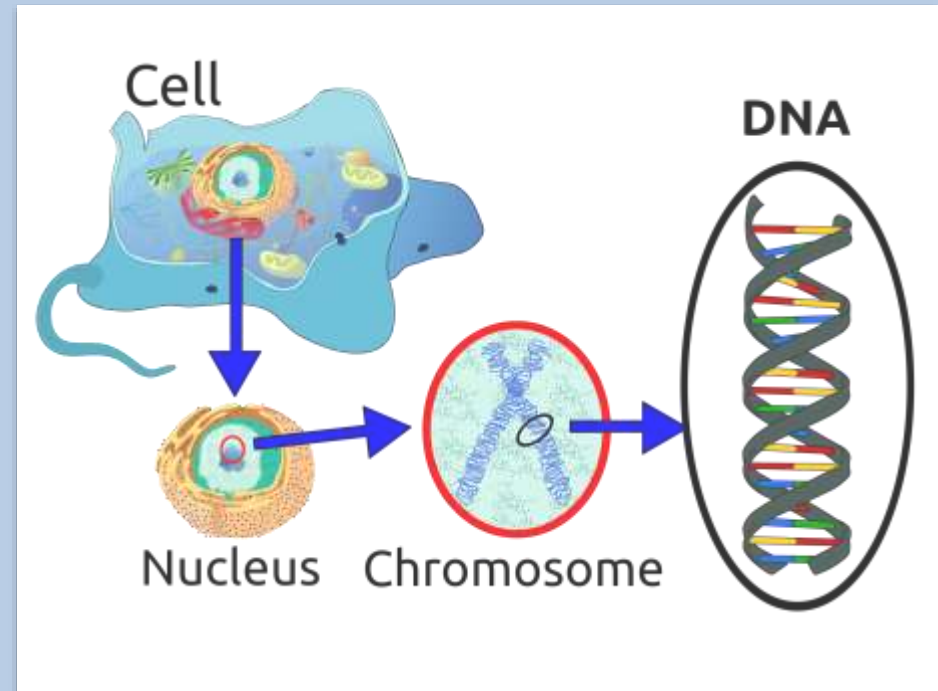
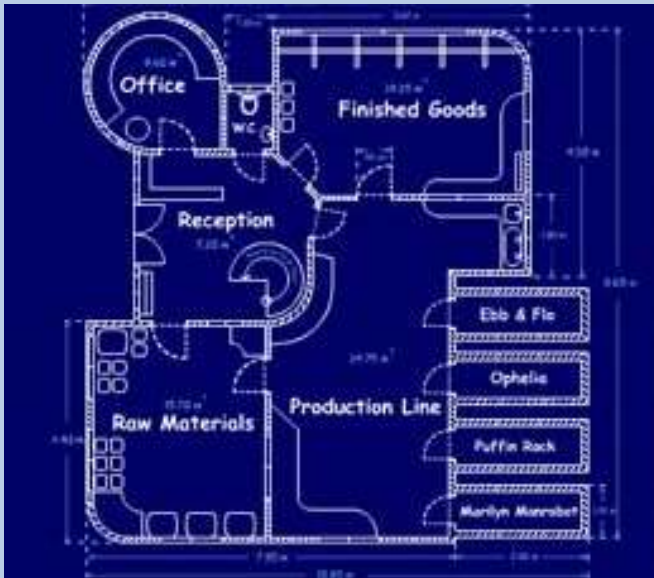
- Important Part:
LOCKING CABINET = NUCLEOLUS



Build a Factory

- Important Part:

BLUEPRINTS = DNA



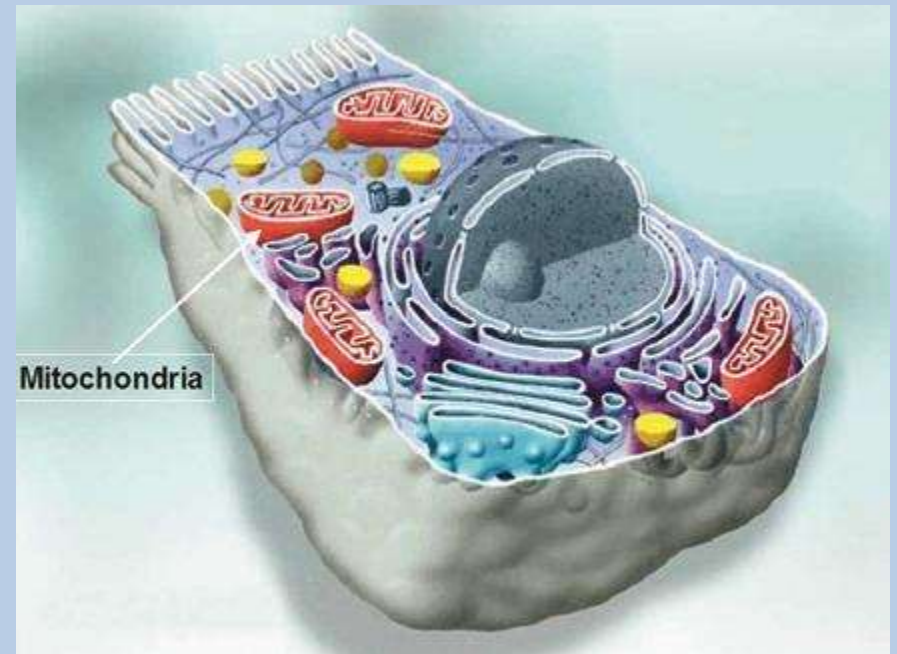
BRAIN BREAK

- Which 2 organelles give eukaryotic cells energy?

Build a Factory

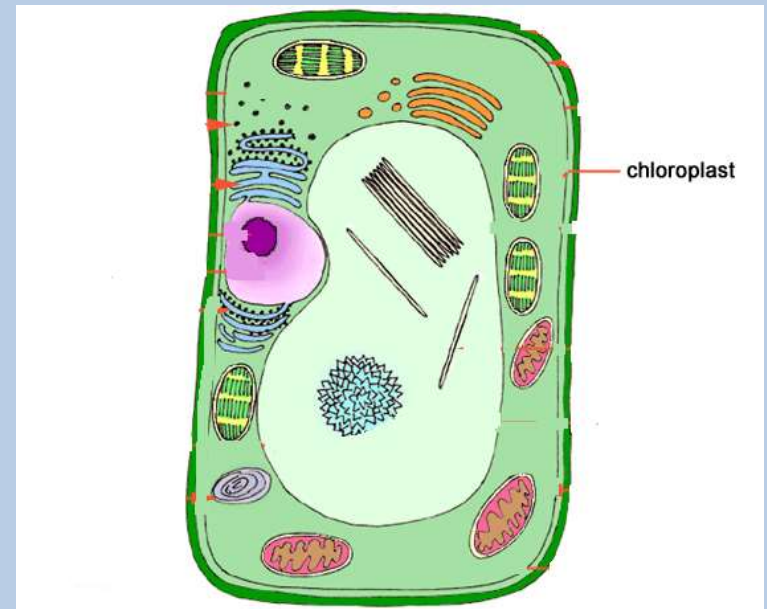
- Important Part:

ENERGY SOURCE = MITOCHONDRION



Build a Factory

- Important Part:
ENERGY SOURCE (SOLAR PANELS)
=
CHLOROPLAST



BRAIN BREAK

- **Which 5 organelles help eukaryotic cells function?**

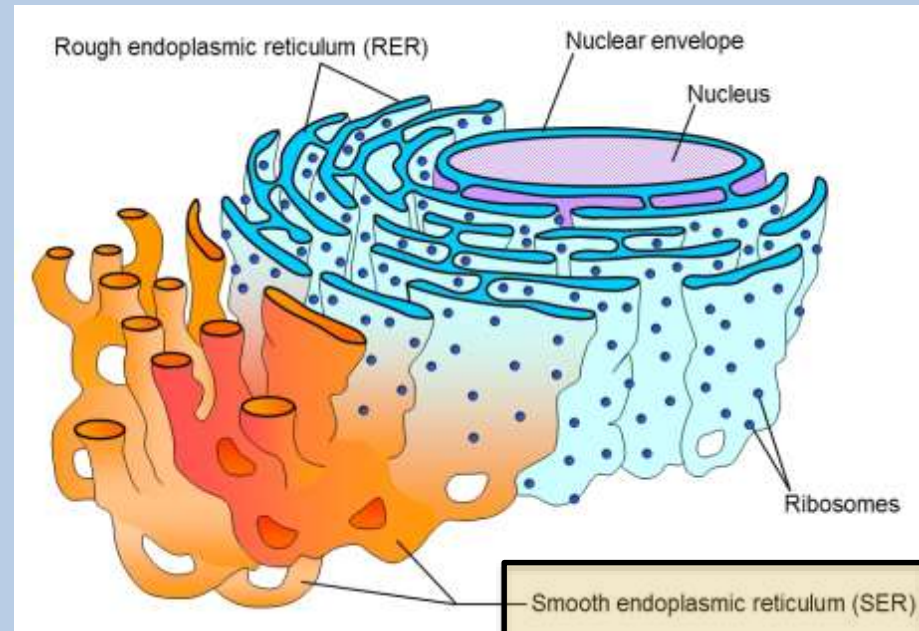
Build a Factory

- Important Part:

AUTOMATED ASSEMBLY LINE

=

SMOOTH ENDOPLASMIC RETICULUM



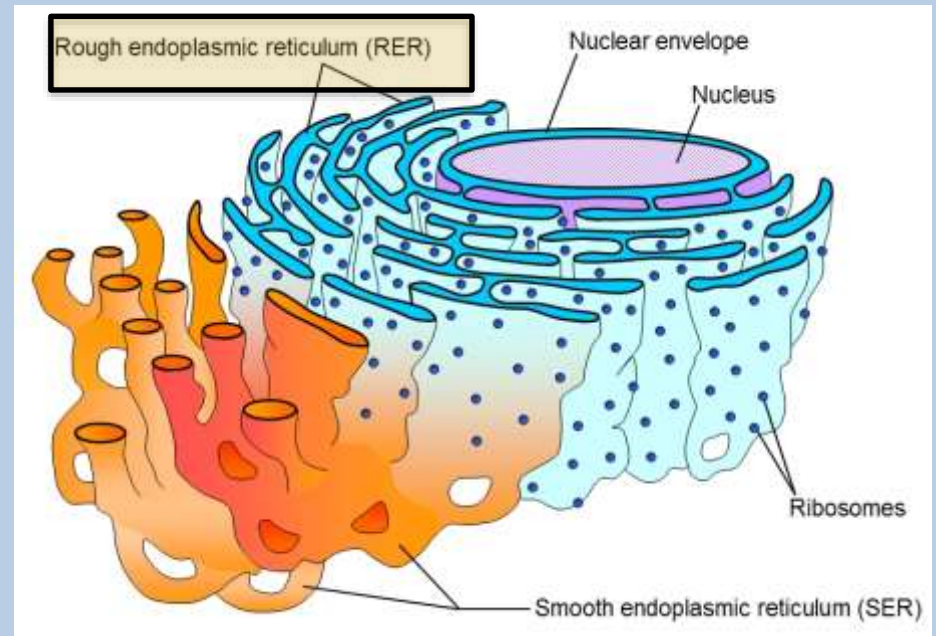
Build a Factory

- Important Part:

MANUAL ASSEMBLY LINE

=

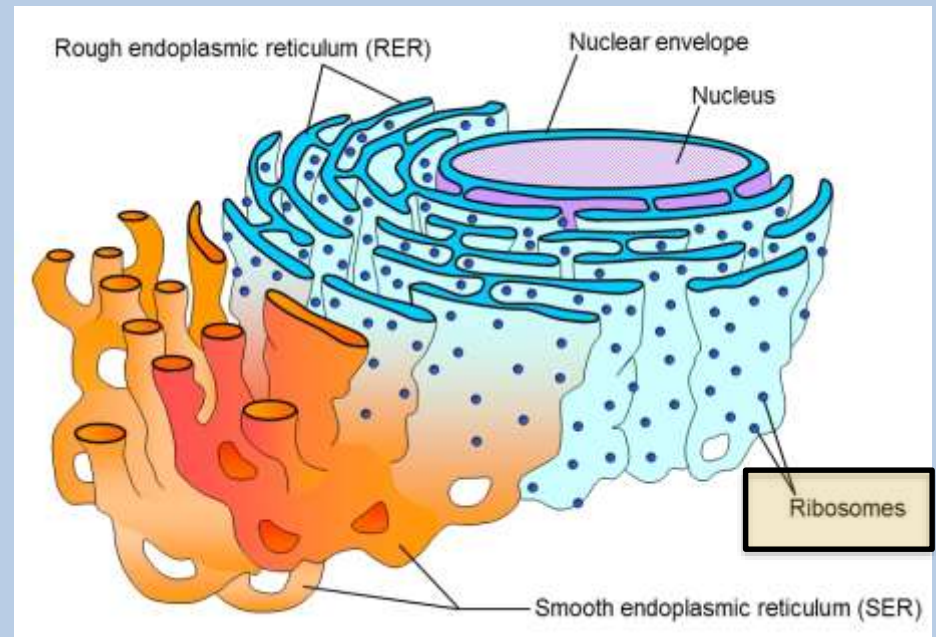
ROUGH ENDOPLASMIC RETICULUM



Build a Factory

- Important Part:

ASSEMBLY WORKERS = RIBOSOMES



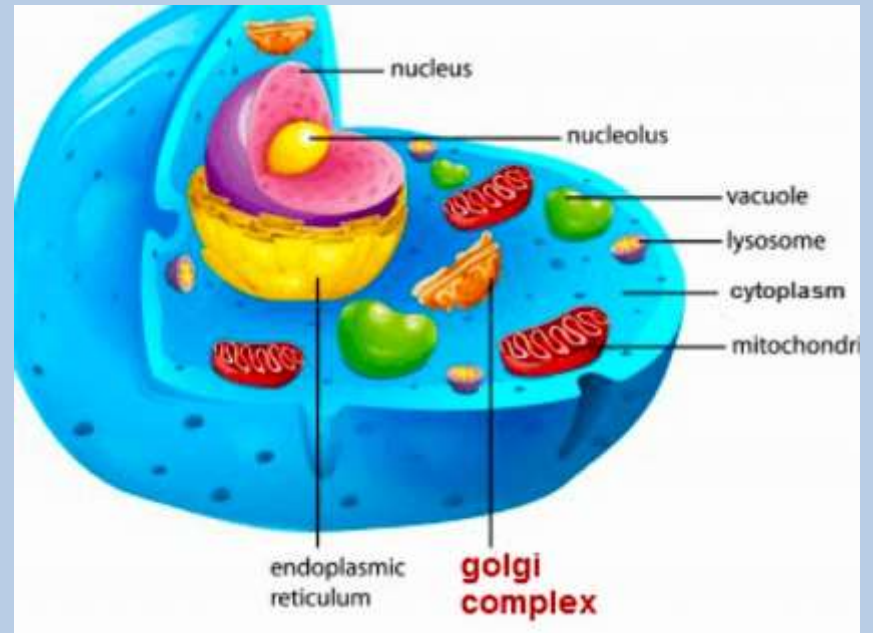
Build a Factory

- Important Part:

SORTING, PROCESSING AND PACKAGING

=

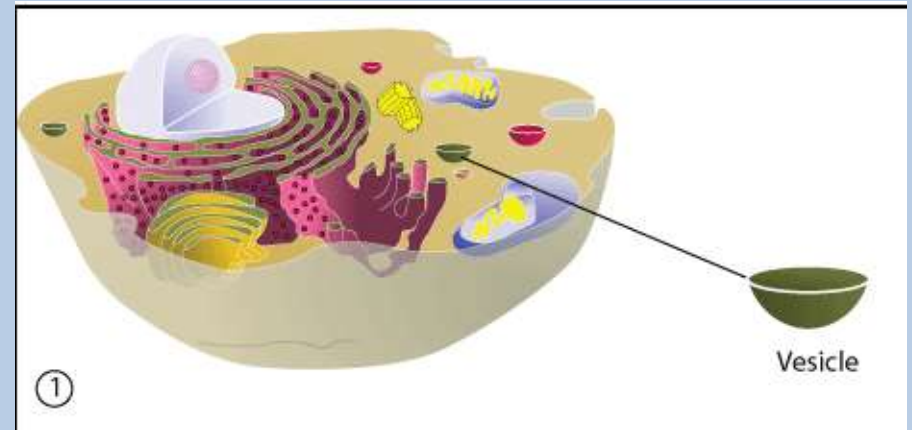
GOLGI APPARATUS



Build a Factory

- Important Part:

INTERNAL TRANSPORTATION (carts or conveyor belts) = VESICLES

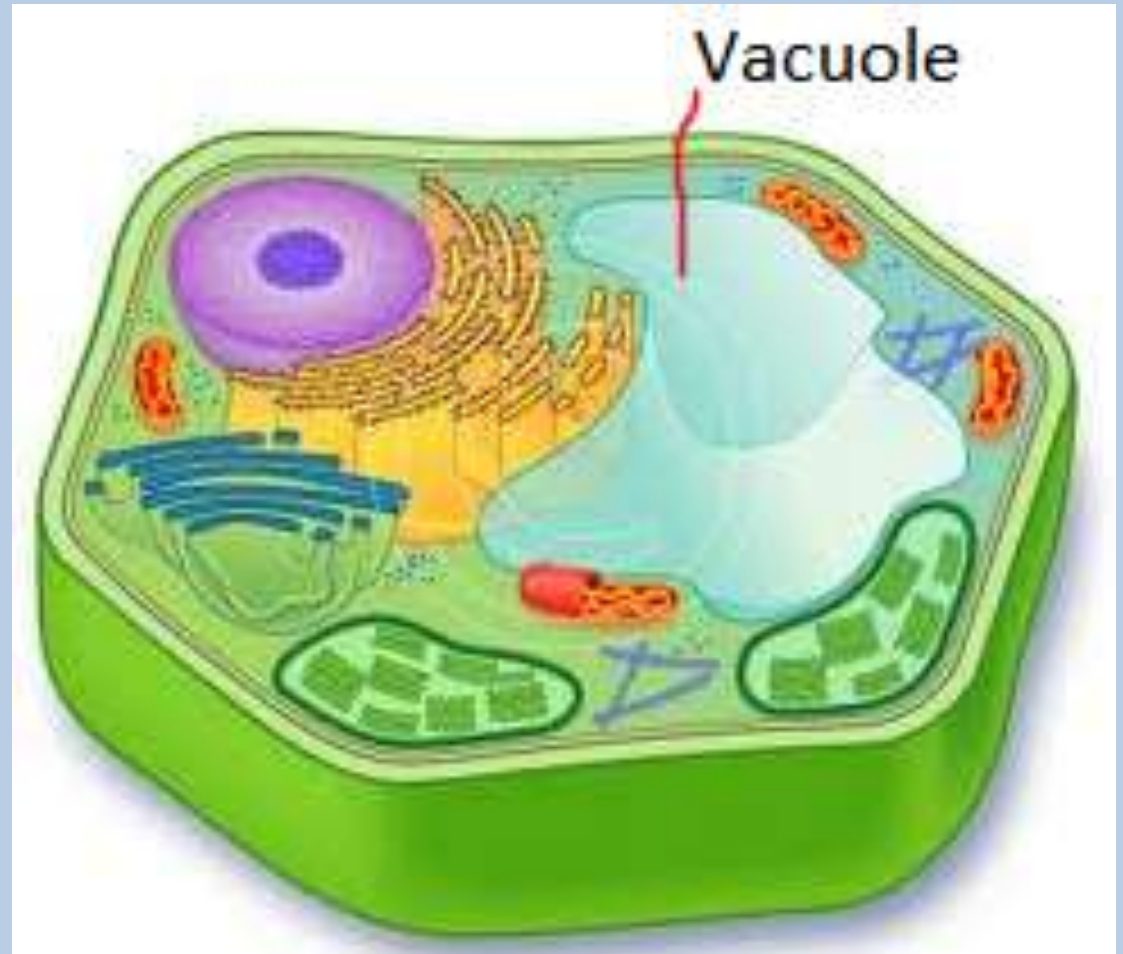


BRAIN BREAK

- **Which organelles are ONLY IN PLANT CELLS**

Plant Cell

STORAGE = CENTRAL VACUOLE

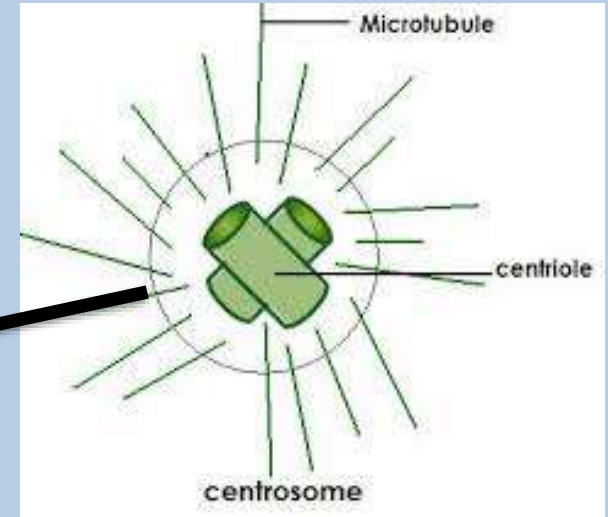
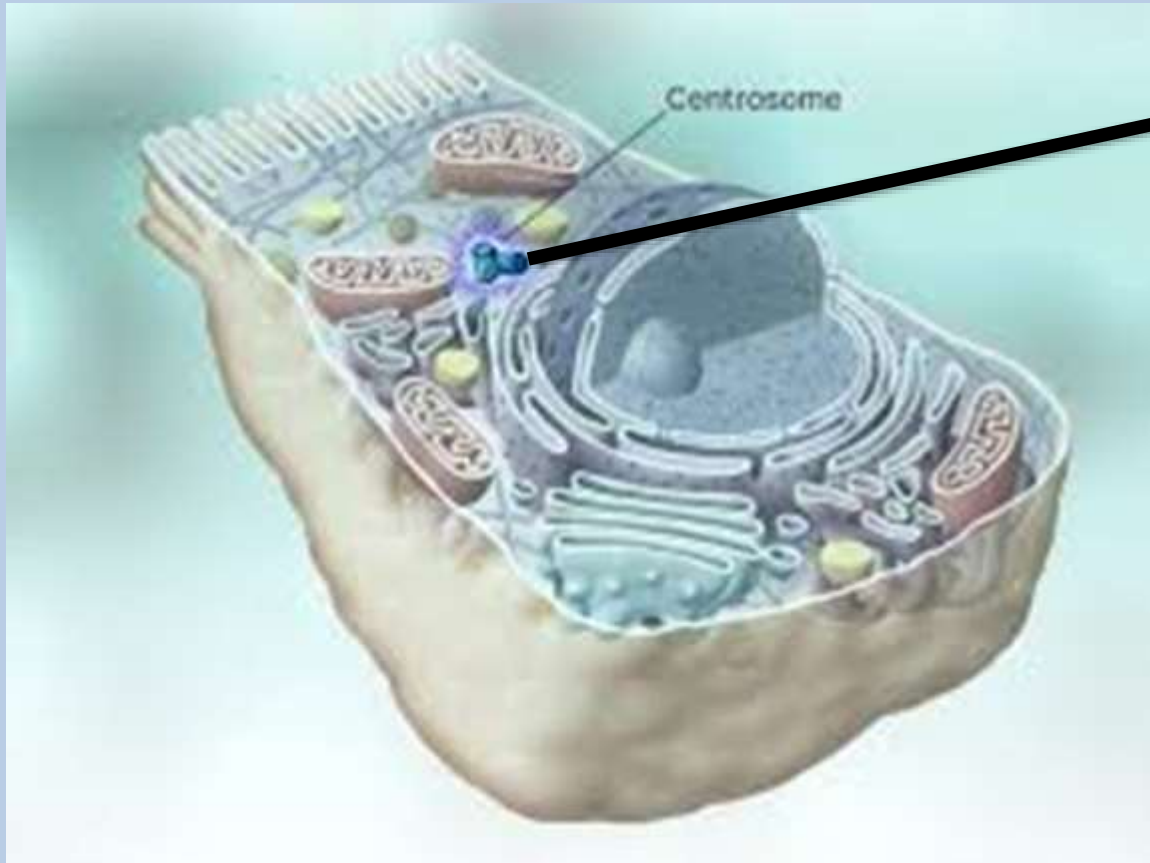


BRAIN BREAK

- Which organelles are **ONLY IN ANIMAL CELLS?**

Animal Cell

CENTRIOLE



Photosynthetic Animals?!



Comparing Cell Structures

- Around the room there are 16 microscopes set up
- Go around the room and make observations of each type of cell
- On notebook **page 35**, for each station:
 - Write the tissue type
 - Sketch a picture of what you are observing
 - Describe the cells;
 - How close together are they?
 - What shape do they have?

Comparing Cell Structures

- Through a microscope animal cells look like this... What organelles can you see?



Comparing Cell Structures

- On notebook **page 35** for each station:
 1. Write the tissue type
 2. Sketch a picture of what you are observing
 3. Describe the cells;
 - How close together are they?
 - What shape do they have?

Comparing Cell Structures

- **WHEN YOU ARE DONE MAKE SURE YOUR NOTEBOOK IS CAUGHT UP:**

Page	Title of Page	Check	Page	Title of Page	Check
24	Yellowstone Ecosystem		25	Algae Lab	
26	Unit 2 Wrap-up		27	Unit 3 Cover Sheet	
28	5.3 Simulation: Investigate Population Growth		29	Demography Notes	
30	Ecological Footprints		31	Human Causes of Global Change	
32	Human Impact Project		33	Unit 4 Cover Sheet	
34	Cell Notes and 8.1 Interactivity		35	Comparative Cell Structure and 8.4 Interactivity	