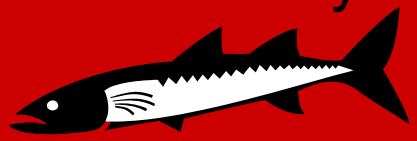
Attitude is Everything!



Fri, Oct 13, 2017

Please make sure your **phones** are in your **bags**.

Pick up: none

Today you will:

1. Work on cell analogy project

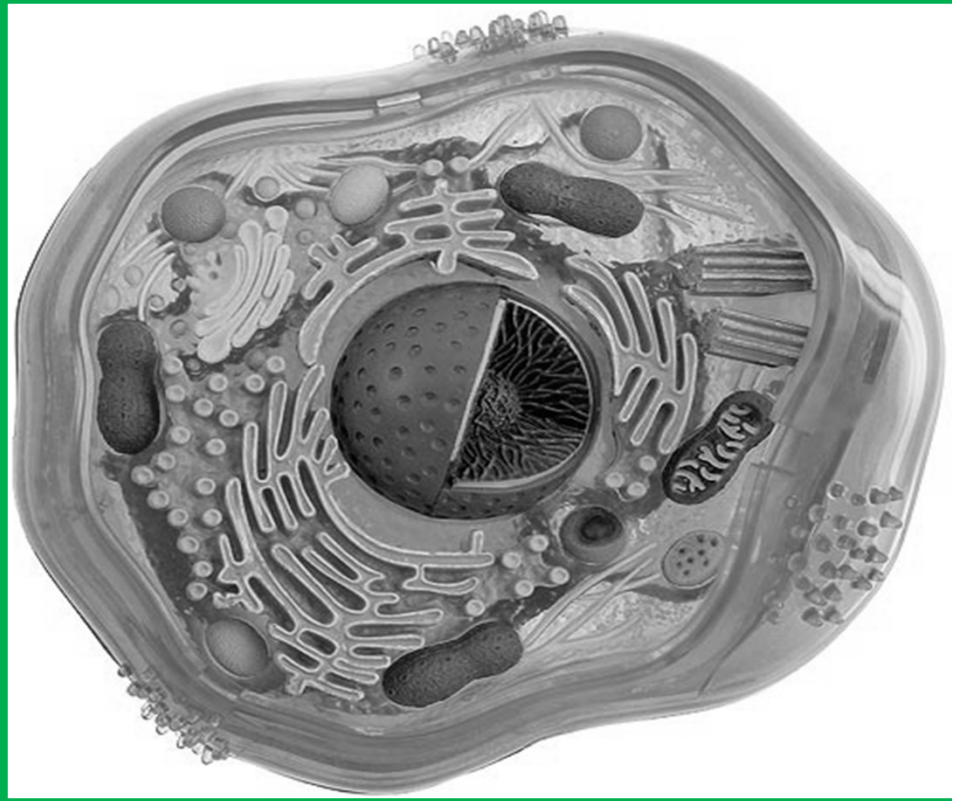
Homework/Planner:

Study for Wednesday's Quiz!!

Community Service Hours
Spruce Creek Park Sat, 10/14 & 10/21 (8-12)
Wear clothes & shoes to get dirty and wet

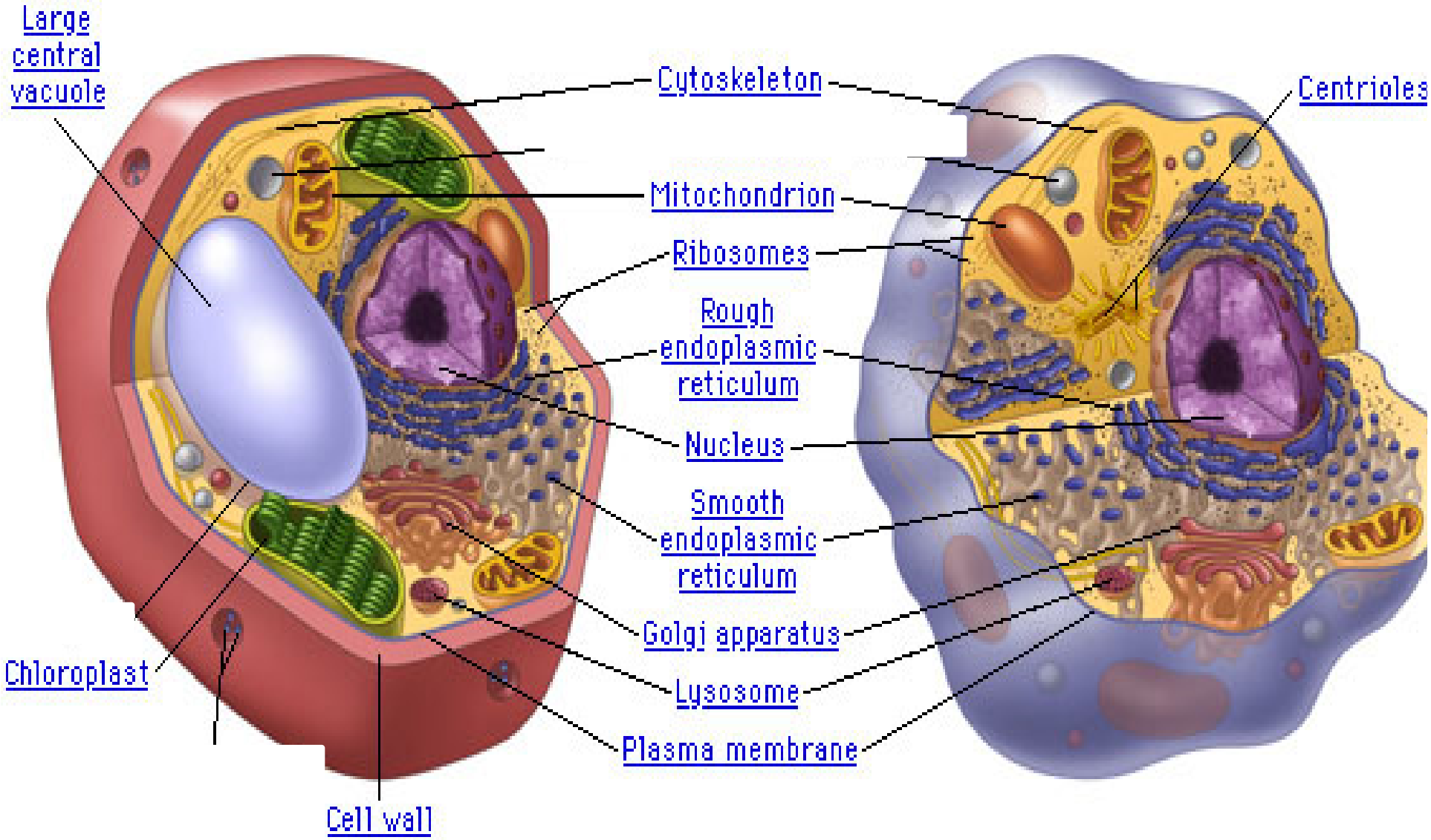
DSQ

1. ***What TYPE of cell are these?***
2. ***Which one is a PLANT cell? ANIMAL cell?***
3. ***How do you know?***



EUKARYOTES

PLANT CELL vs ANIMAL CELL



A Vacuole stores **Water**, nutrients, minerals, etc...

So, why is the vacuole so much larger in a plant cell?

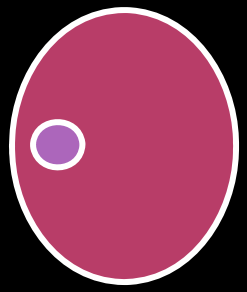
Partly EMPTY Vacuole **vs** **FULL Vacuole**

Turgor Pressure

CELL BOUNDARIES

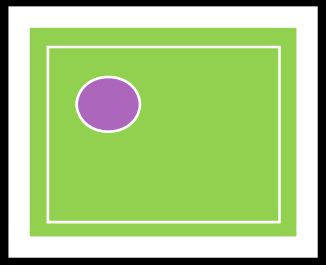
Highlight underlined

1. ***Plasma/Cell membrane:***



- **<u>Protection</u>**
- It has pores in it…so it **<u>Maintains Homeostasis</u>**!
- *Found in BOTH plant & animal cells*

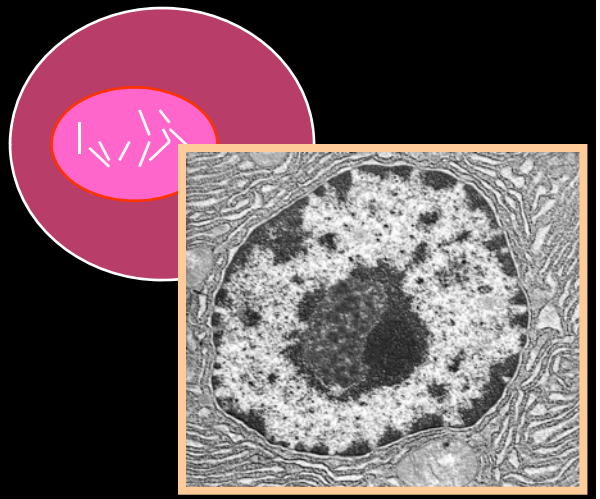
2. ***Cell wall*:**



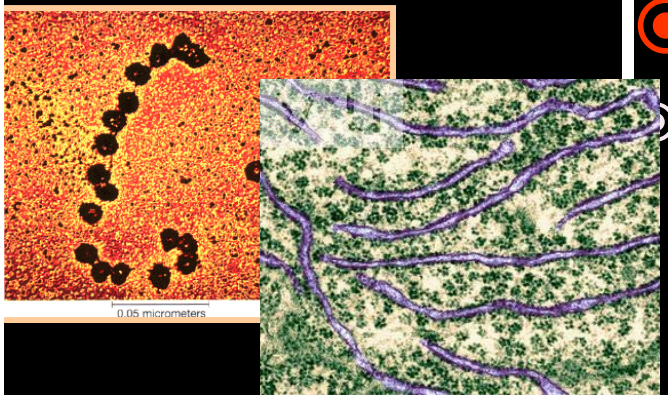
- **<u>Protects & supports</u>**
- Thicker / Inflexible
- *NOT found in animal cells*

DIRECTION & ASSEMBLY

3. *Nucleus*:



4. Ribosomes

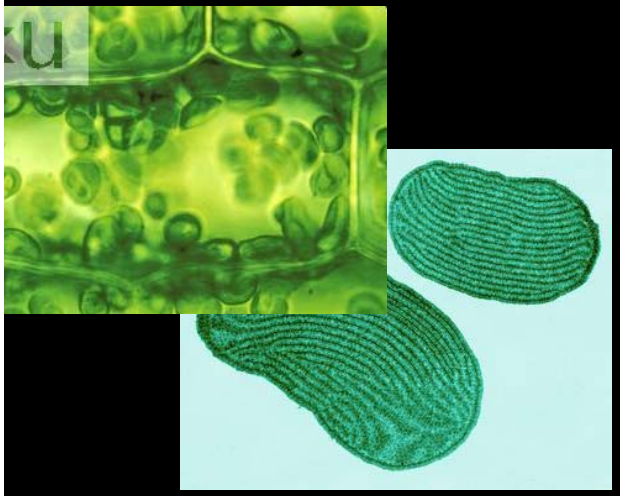


- **Control center**
- **Contains DNA** (genetic mat. that detetmine traits)
  - *Nuclear membrane surrounds nucleus…*porous

- **Make proteins**
  - In cytoplasm *& attached to ER*

ENERGY CONVERTERS

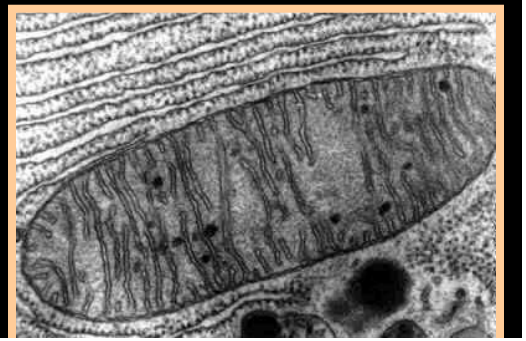
5. Chloroplasts



- **Contains green chlorophyll →for PHOTOSYNTHESIS!**
- *Most common pigment containing plastid – there are others.. Which gives leaves colors*

NOTICE SURFACE AREA IN EACH

6. Mitochondria

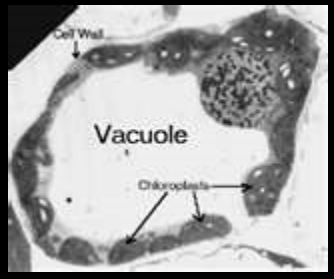


- **"Powerhouses";**
- **Break down food molecules to release energy**
- **Found in BOTH plants & animals**

- *Which has more mitochondria... muscle or fat???*

PACKAGING & TRANSPORT

7. *Vacuole*



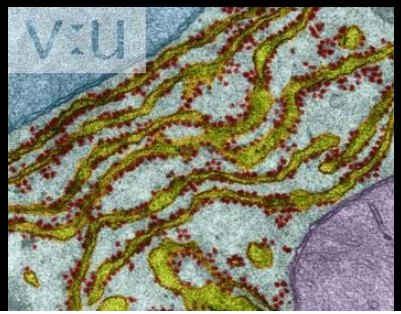
- **Storage area**
  - **Water, waste**

8. *Golgi Body*

- **Packages proteins for transport** to other cells or other part of cell

Notice Surface Area

9. *Endoplasmic Reticulum*:



- **Transports channels**
- Also help make lipids & proteins

Lastly…

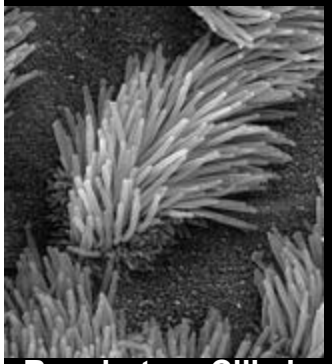
DIFFERENCES IN CELLS…

https://www.youtube.com/watch?v=rABKB5aS2Zg

https://www.youtube.com/watch?v=-zafJKbMPA8

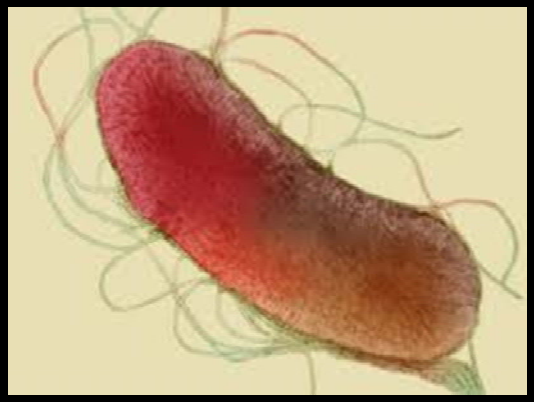
A) CILIA vs FLAGELLA

CILIA		FLAGELLA
short		long
many		fewer
Eukaryotic cells		Eu & Prokaryotes



Respiratory Cilia in Lung Epithelium

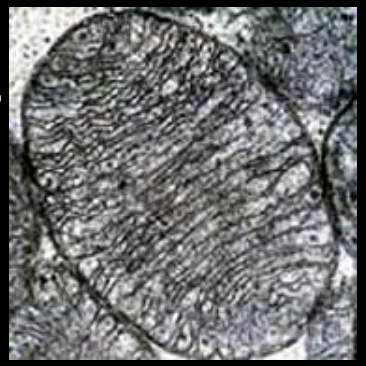
Cilia on Protist

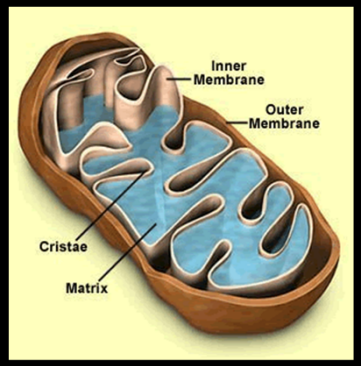


The cilia are bathed in nasal mucus. The mucus moisturizes the air but also, like fly paper, filters dust , pollen, chemicals, bacteria and viruses that enter our nose as we breath. The cilia are always refreshing the mucus coating of the nose. In coordinated waves, they sweep a layer of mucus to the back of the nose every 5-8 minutes. The mucus then slips into the throat where it is swallowed, rather than inhaled into the lungs. The acid of the stomach destroys the harmful nasal debris.

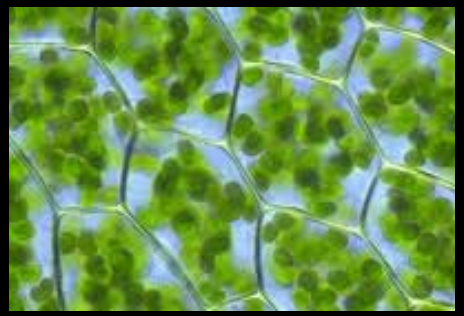
Surface Area – Efficiency!

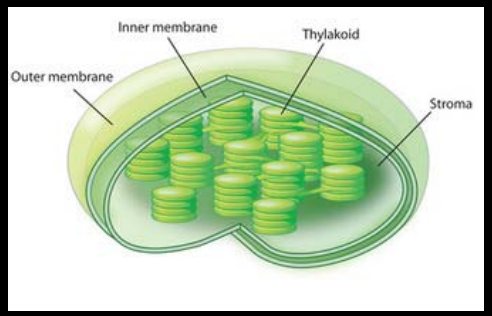
A. Mitochondria





B. Chloroplast





C. Endoplasmic Reticulum