

Catalyst:

How do you believe a Eukaryote (plant/animal cell) will be similar or different to a Prokaryote?

Reflection:

21 L

Eukaryote Notes

11/10/16

?

Notes

Summary

21 R

“Talk with the text!”

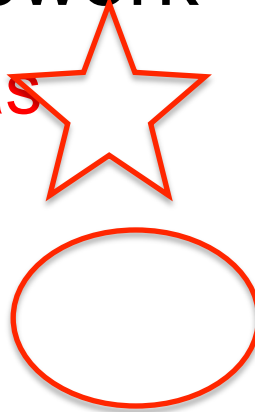
- Read the Eukaryote article with your elbow partner.
- Mark it up with text tags like your Science In The News homework

_____ main ideas

important details

? Confusing

vocabulary



Catalyst:

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Reflection:

What are the defining differences between Prokaryotes and Eukaryotes?

?

Notes

Summary

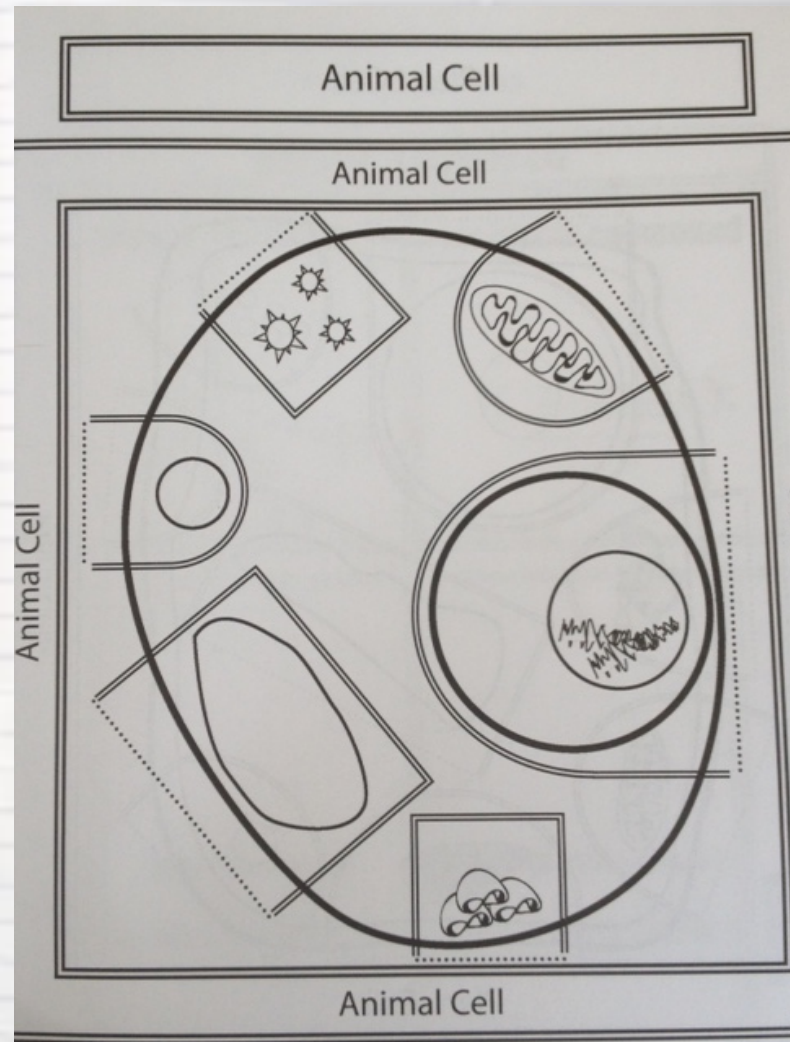
Catalyst:

What special functions do you believe an animal cell will have that a plant cell might not?

Reflection:

Animal Cell

11/15/16



22 L

22 R

To fill in your foldable.....

- **Label** the organelle with its name
- **Write it's function** under the flap
- **Color** a unique color to each unique organelle

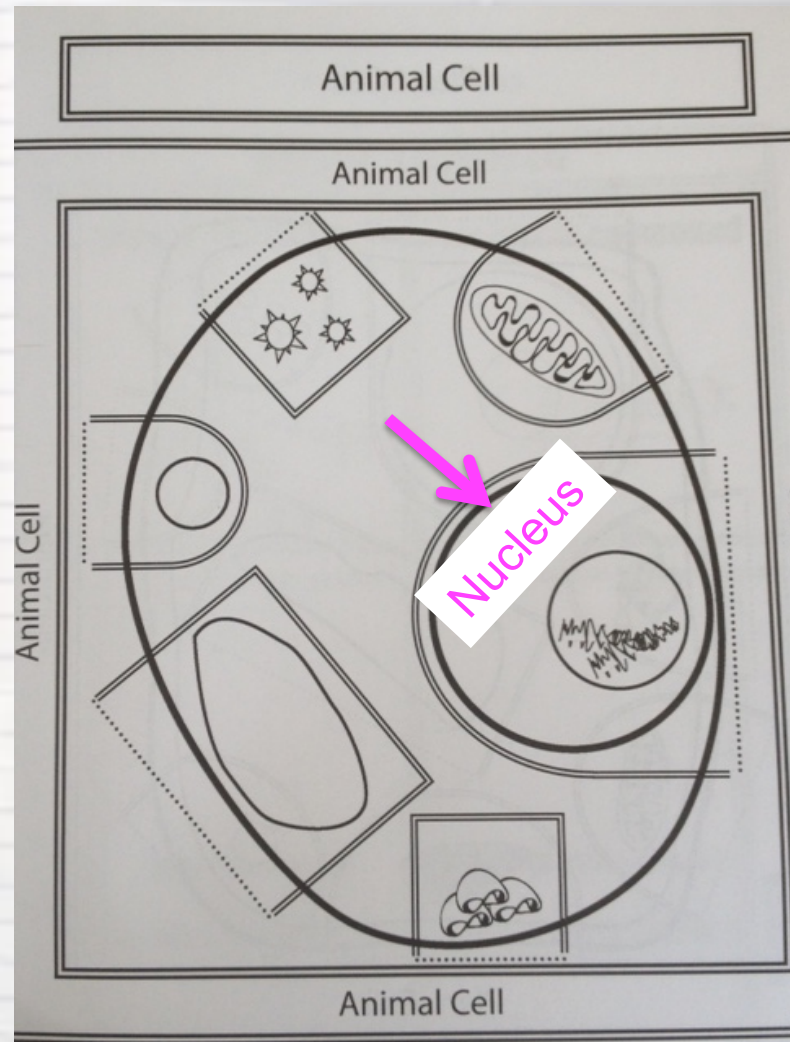
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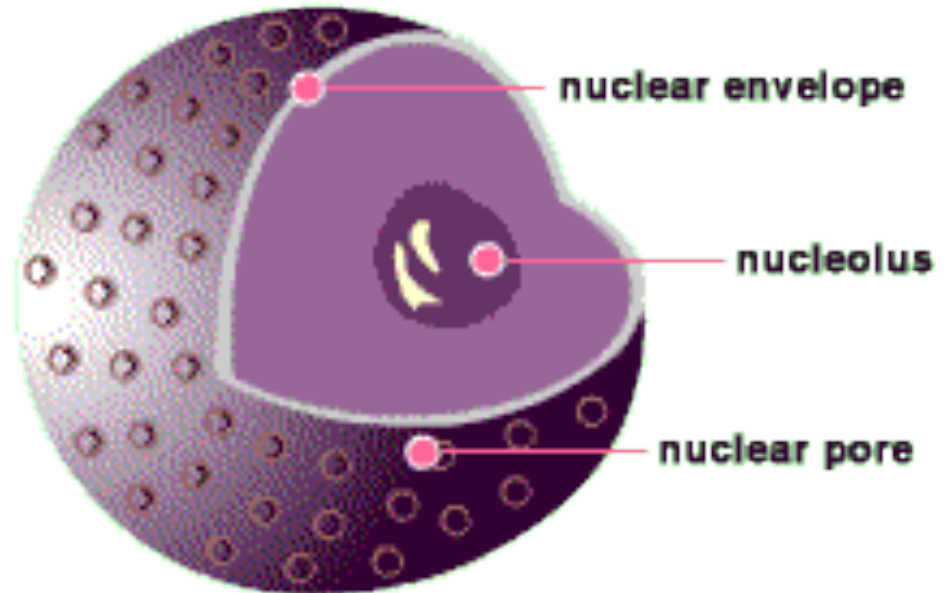
Animal Cell

11/15/16



Nucleus

- Contains the chromosomes (made of DNA)
- Controls all that a cell does
- The president



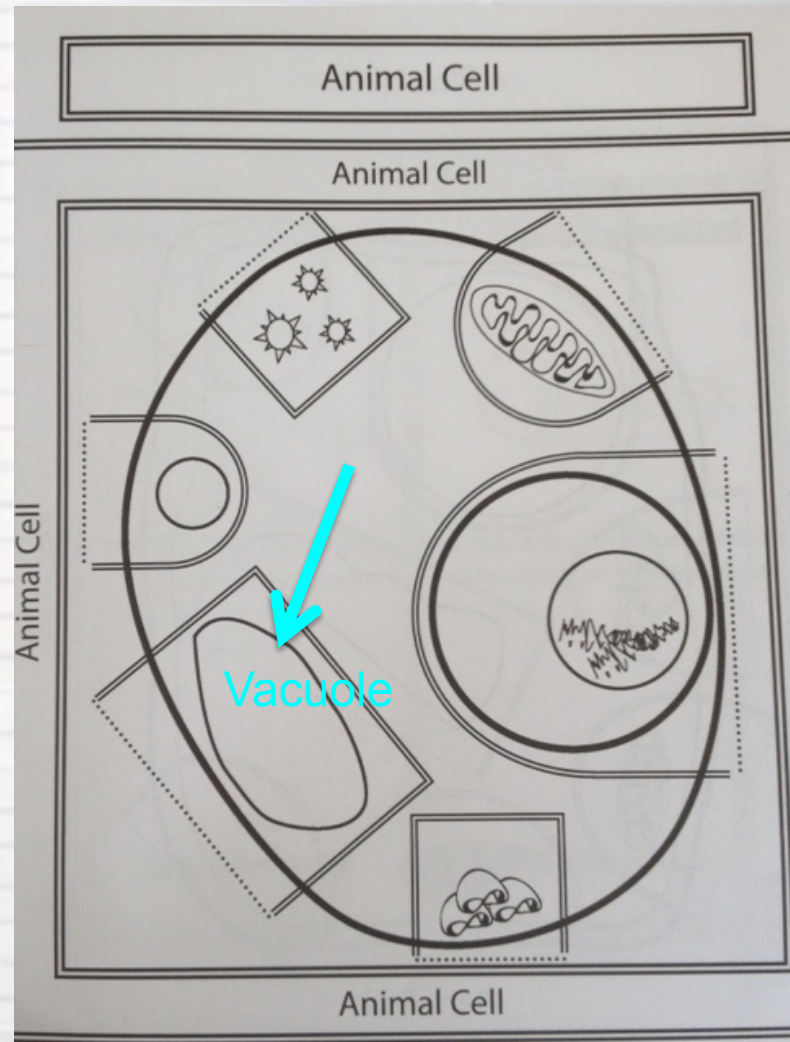
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Vacuole

- Stores food, water and chemicals for the cell
- Storage facility



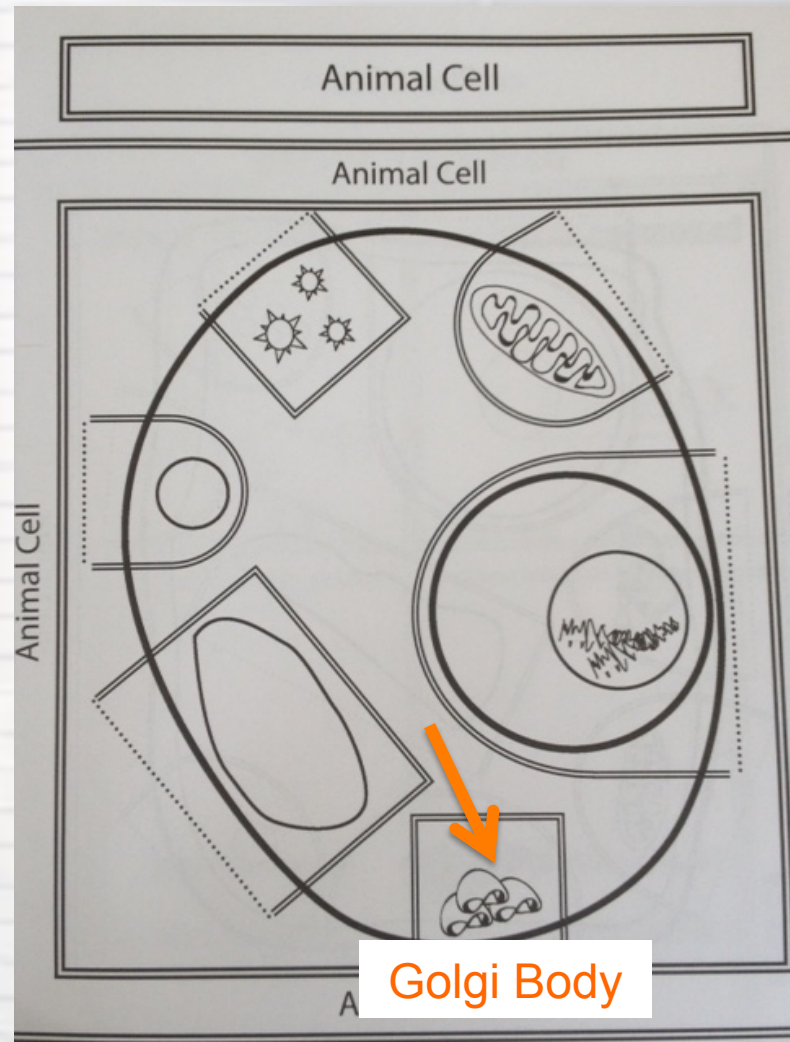
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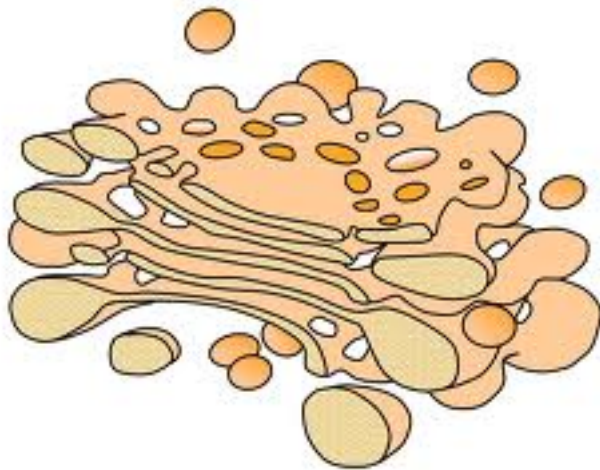
Animal Cell

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Golgi Body

- Packages and ships molecules around and out of the cell
- Post office



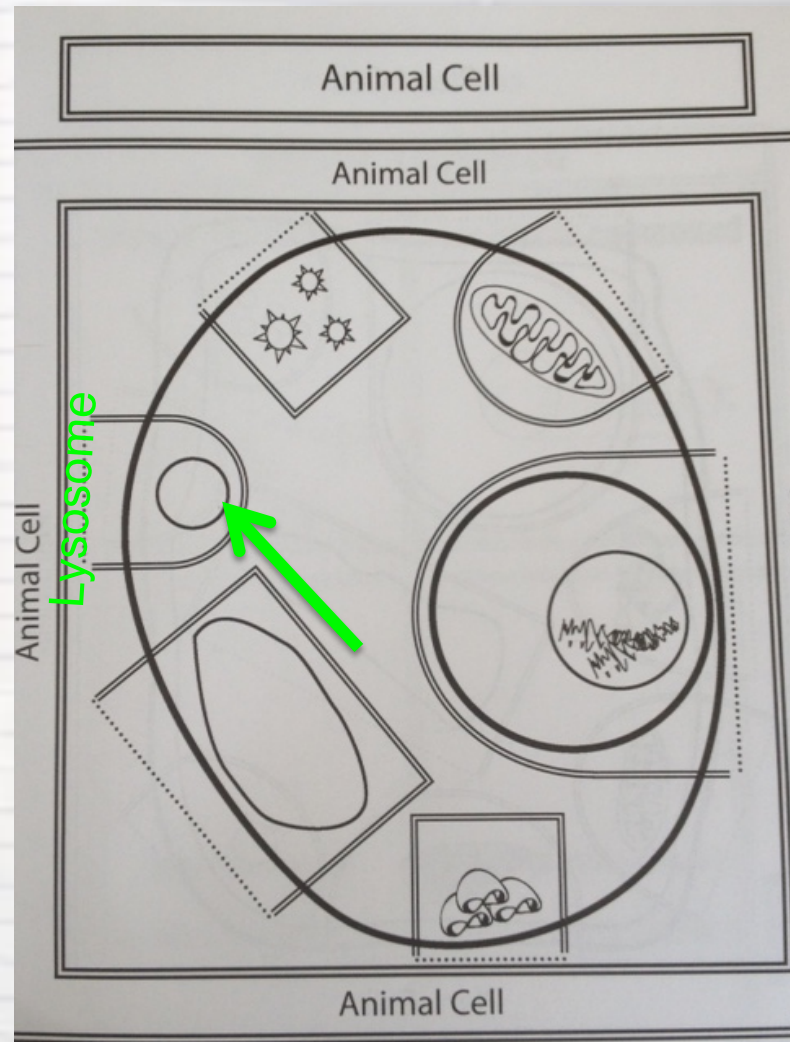
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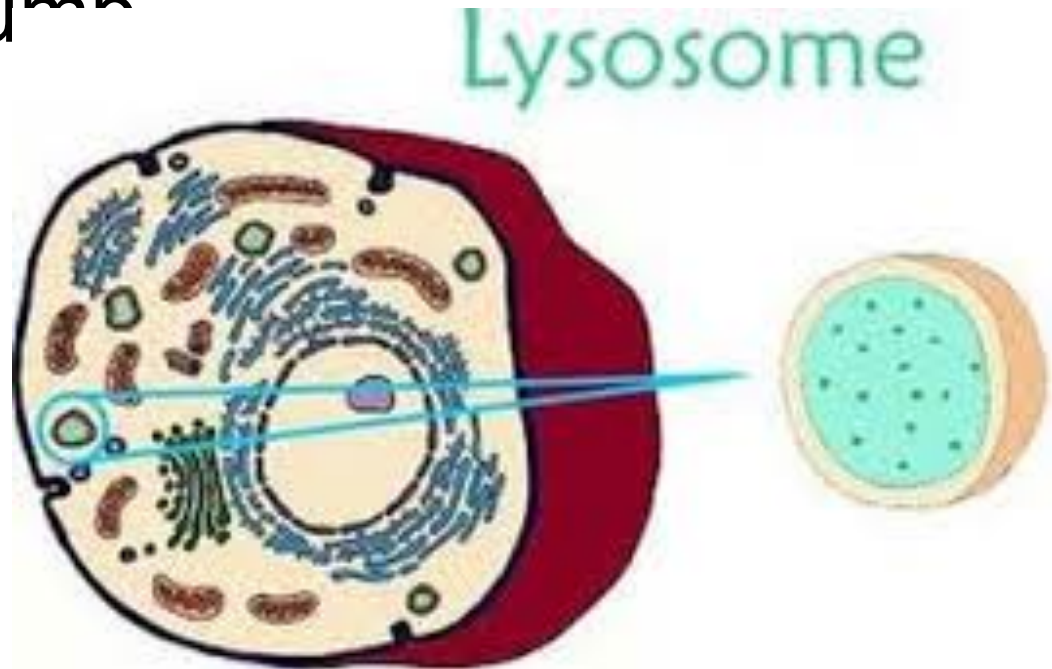
Animal Cell

11/15/16



Lysosome

- Digests (breaks down) old cell parts and waste
- The garbage dump



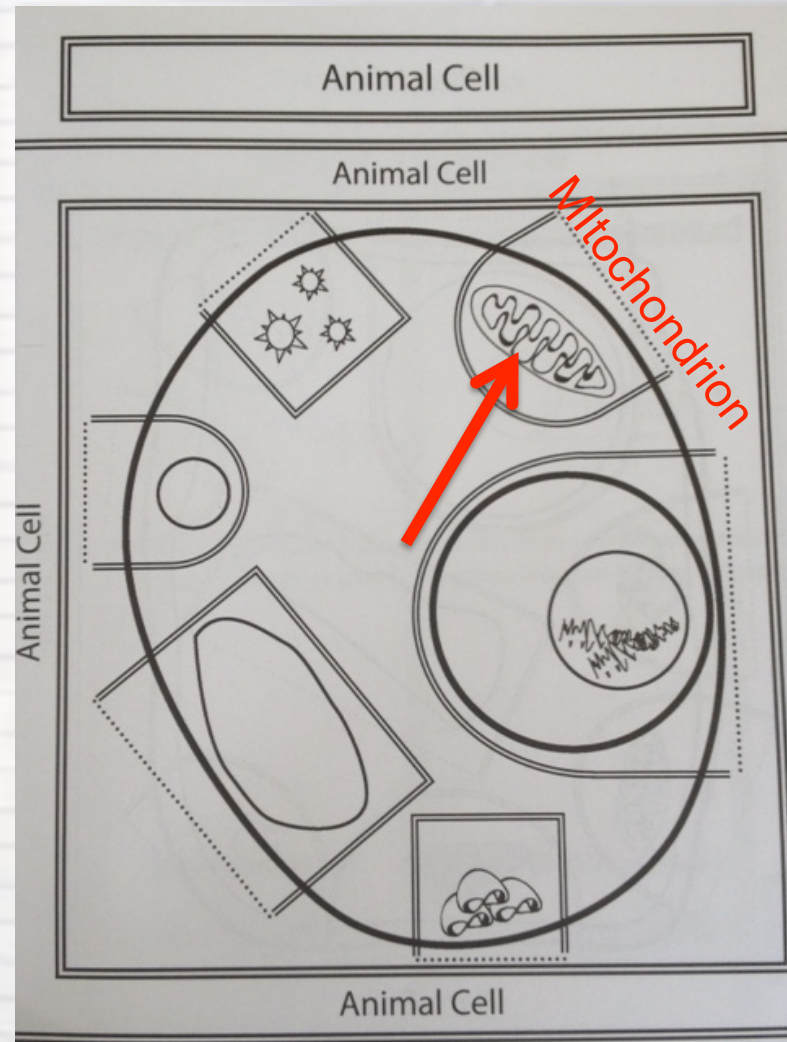
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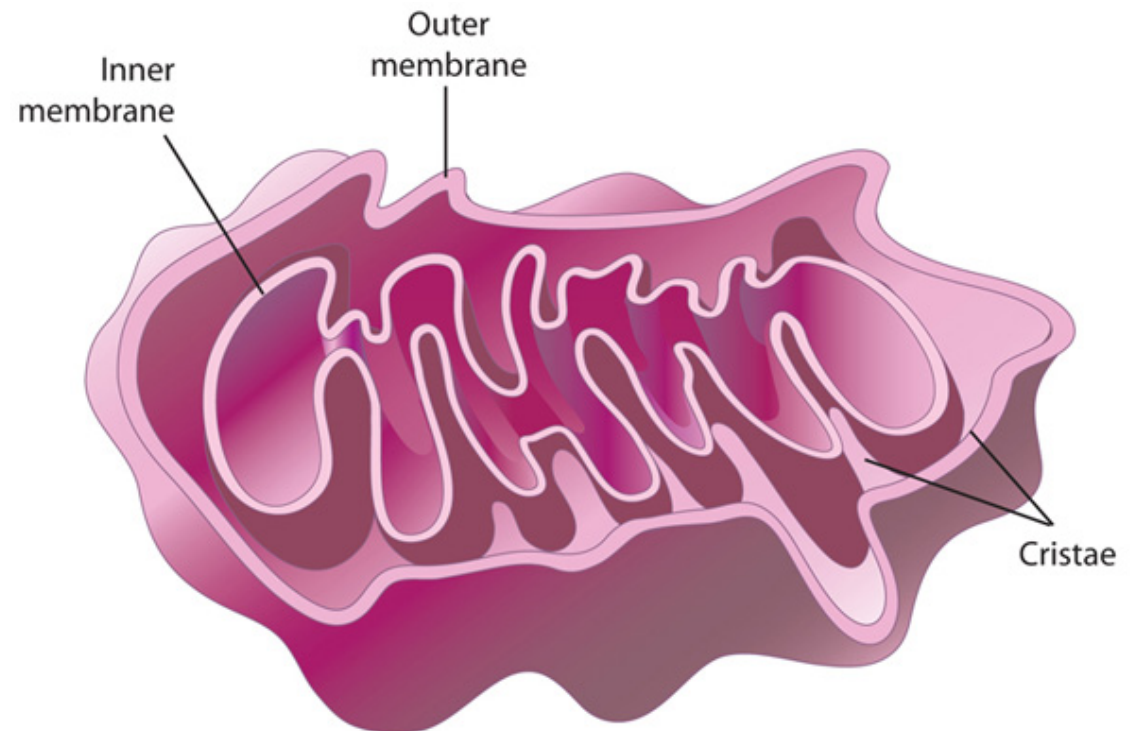
Animal Cell

11/15/16



Mitochondrion

- Where energy for the cell is made through cellular respiration
- The power plant



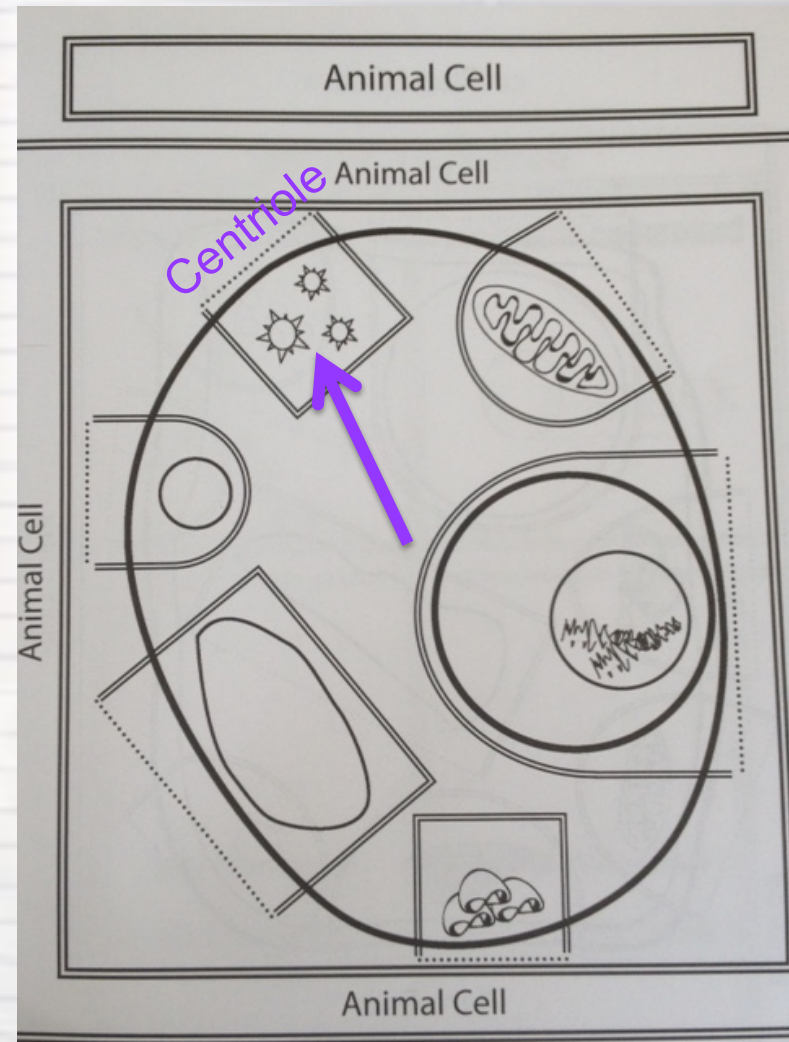
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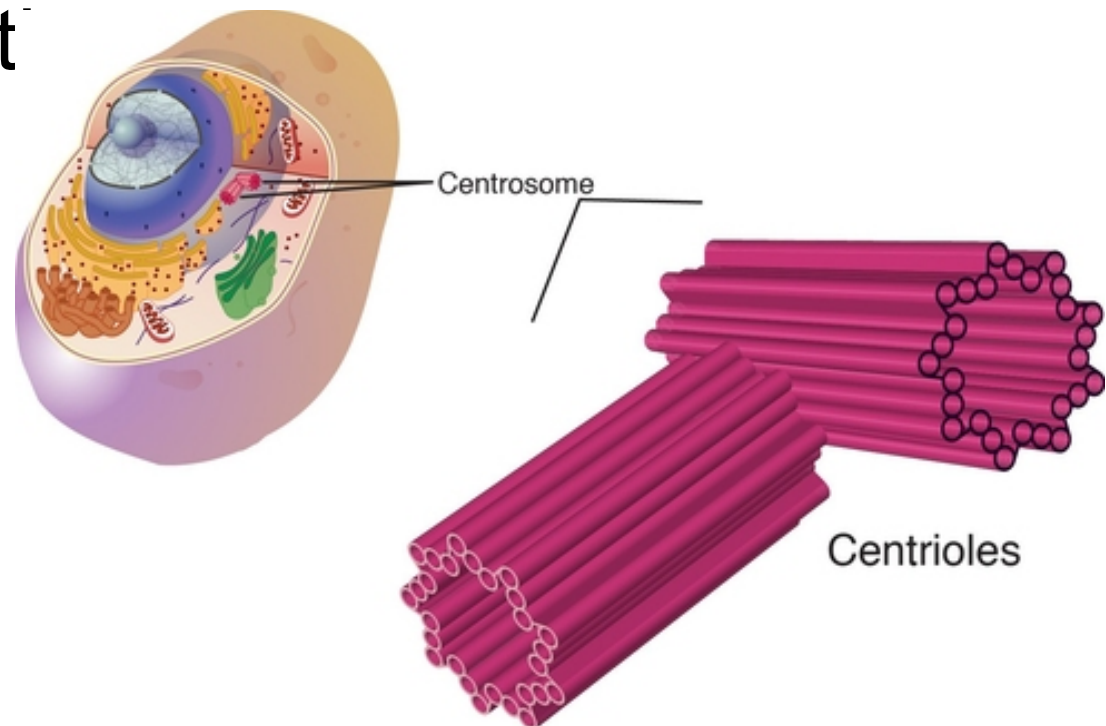
Animal Cell

11/15/16



Centriole

- A structure that aids in cell division (mitosis)
- Helps with movement and growth
- The metro stat



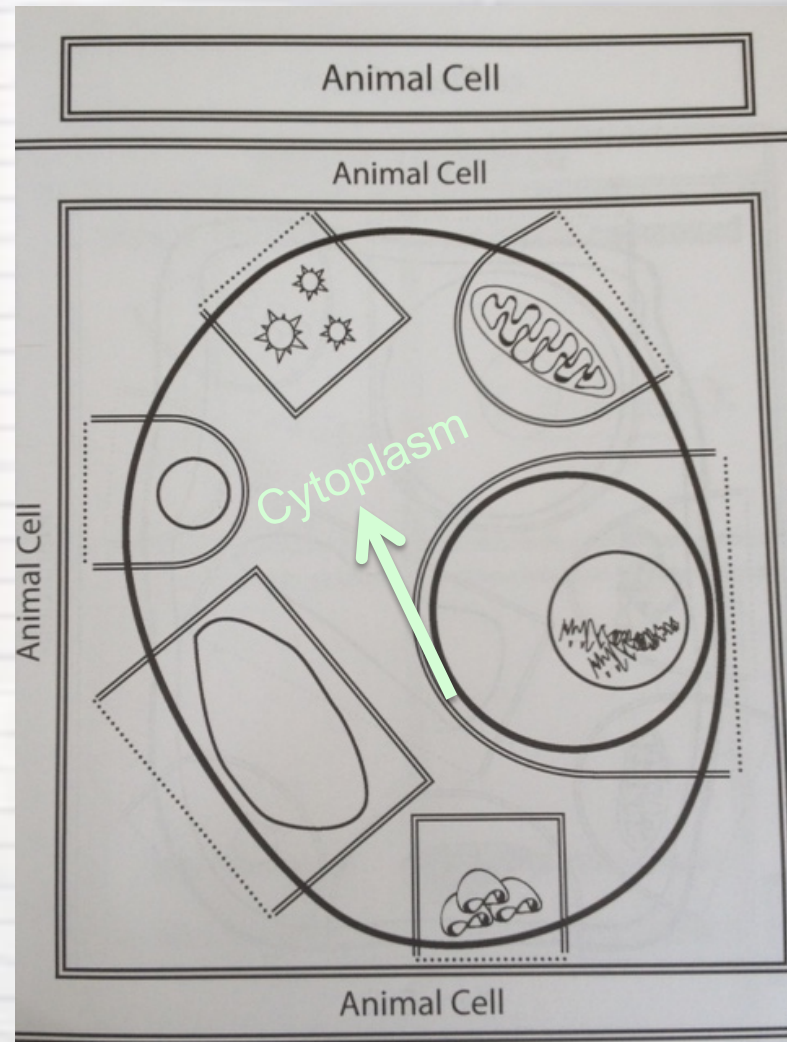
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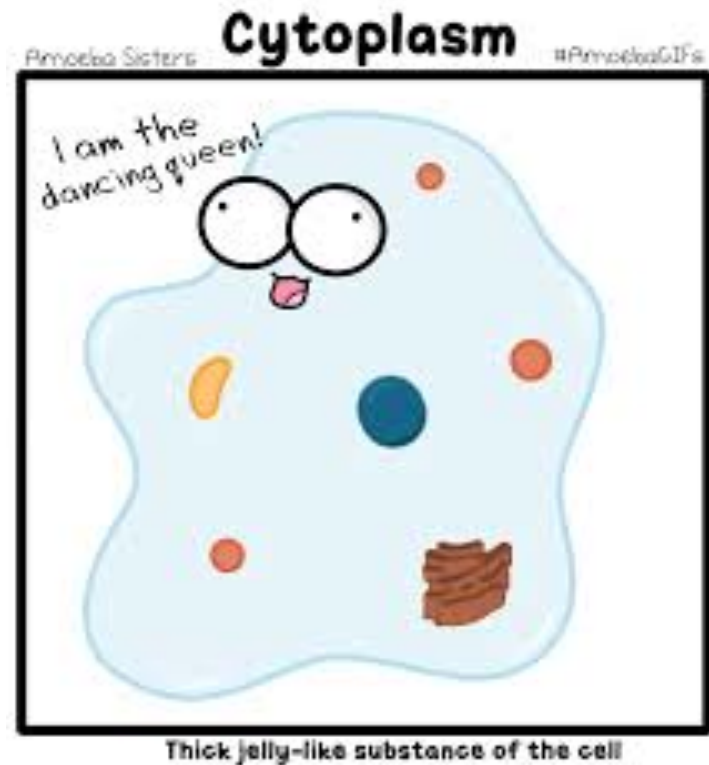
Animal Cell

11/15/16



Cytoplasm

- The Jello like fluid that the organelles float in.
- Where chemical reactions take place
- The Park



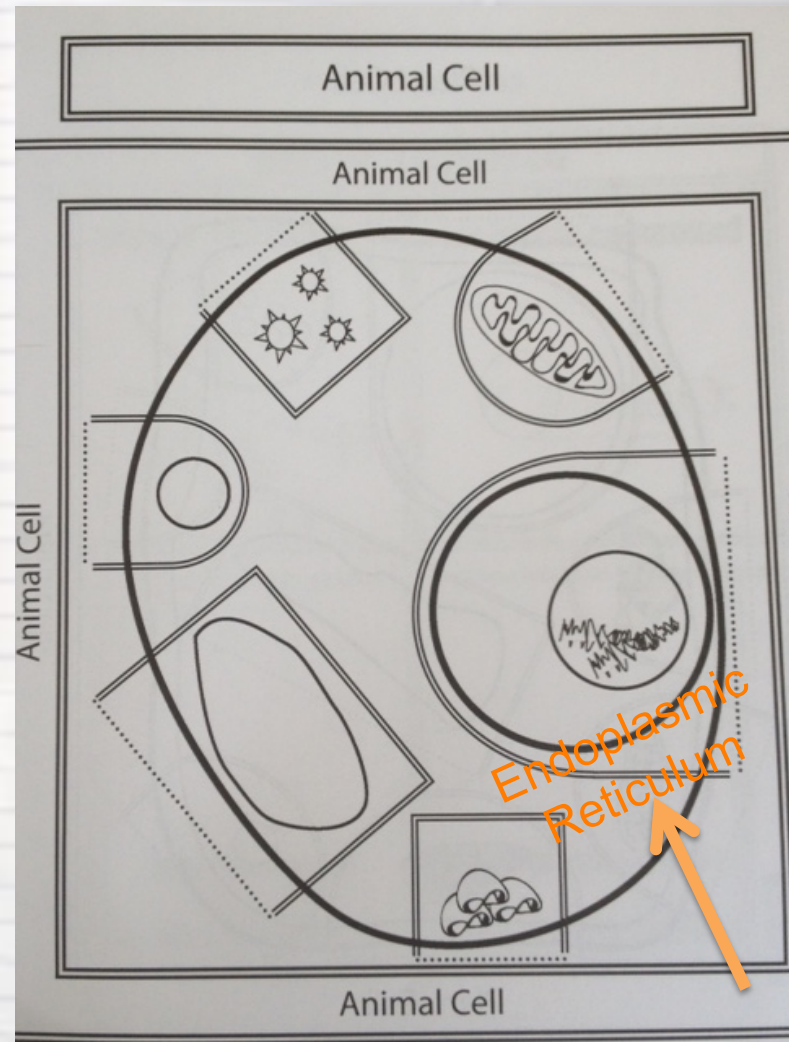
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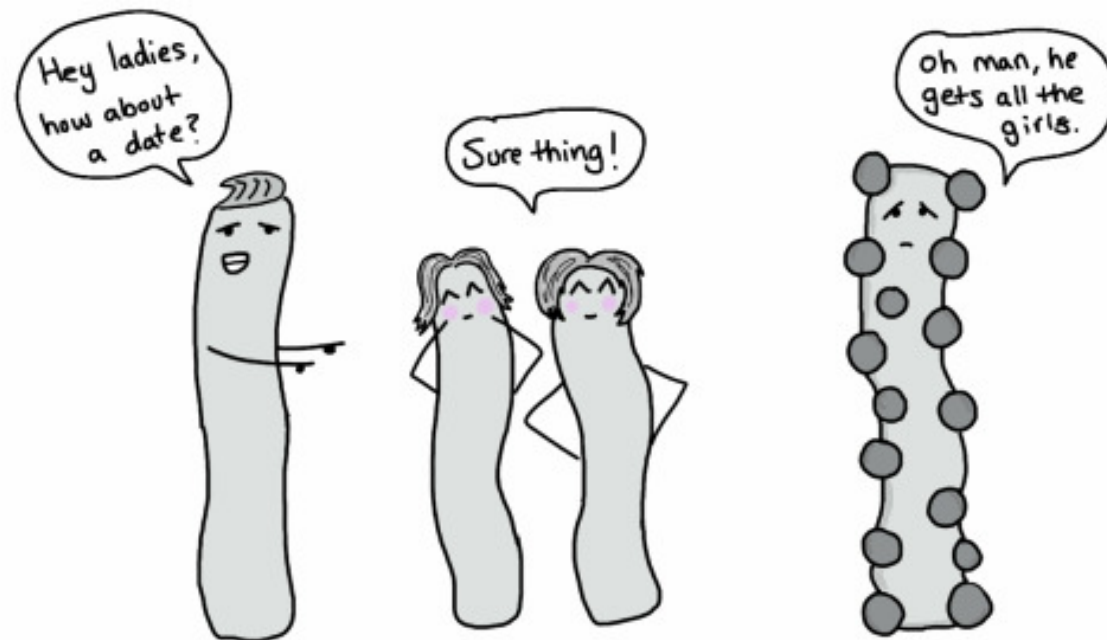


22 L

22 R

Endoplasmic Reticulum (ER)

- Makes proteins
- Breaks down fats
- The gym



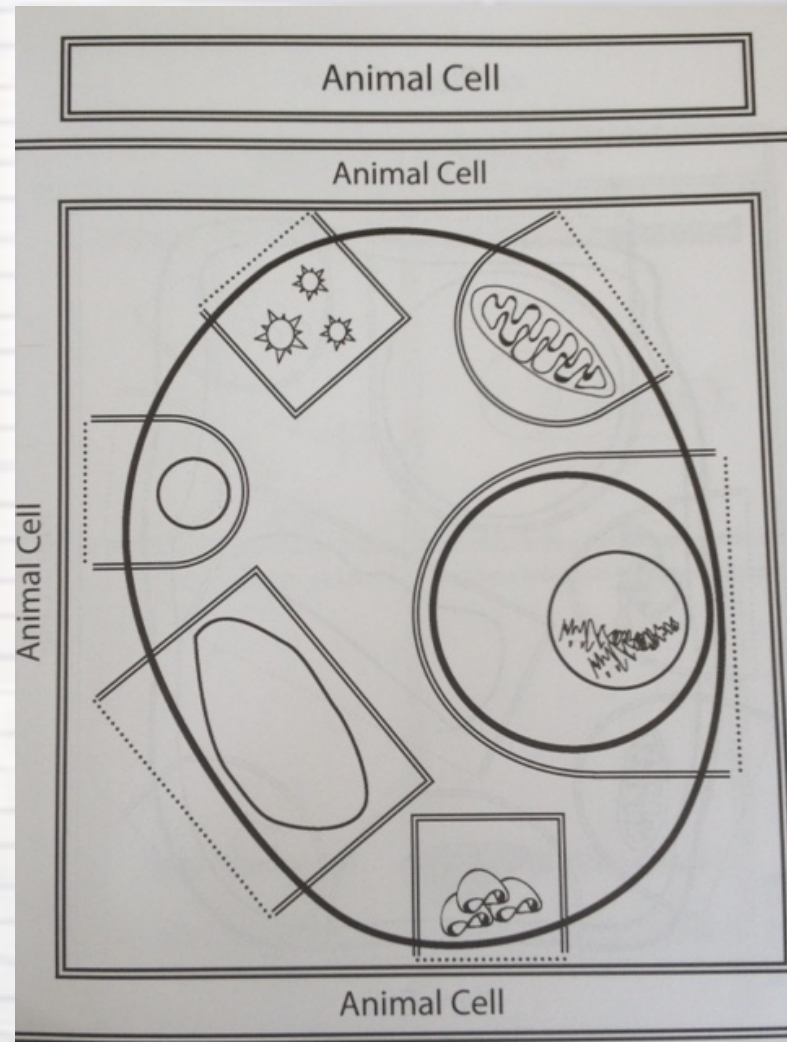
Smooth Endoplasmic Reticulum

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Create your own analogy between a cell and the human body (use our comparison of the cell and the city to guide you).



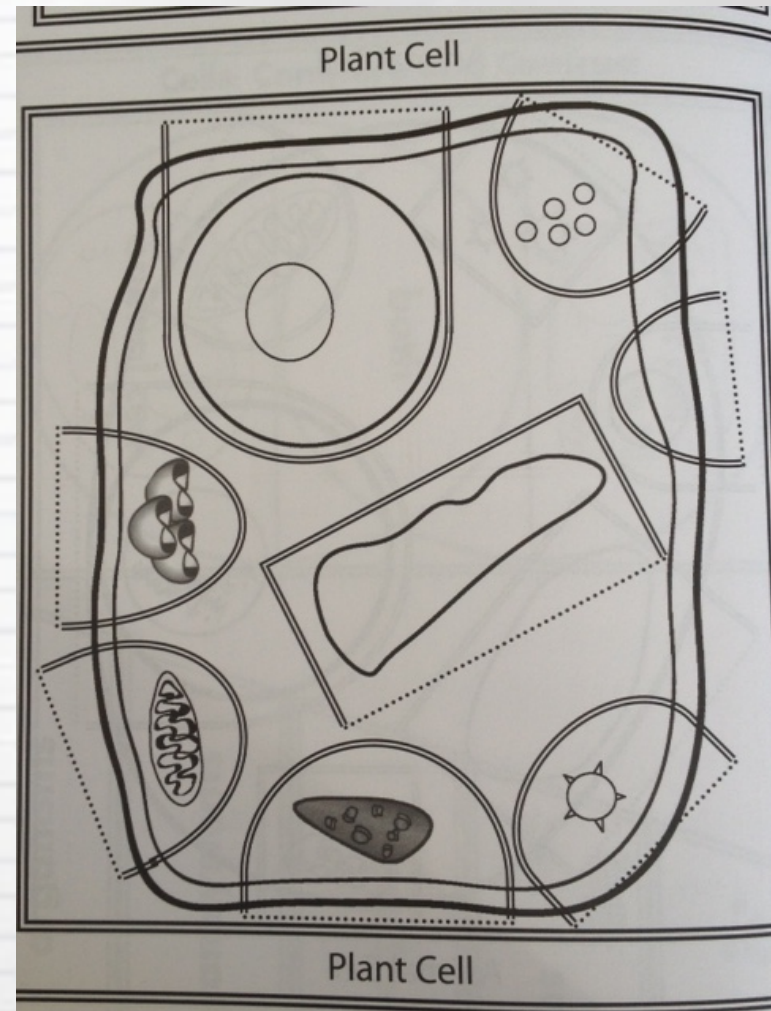
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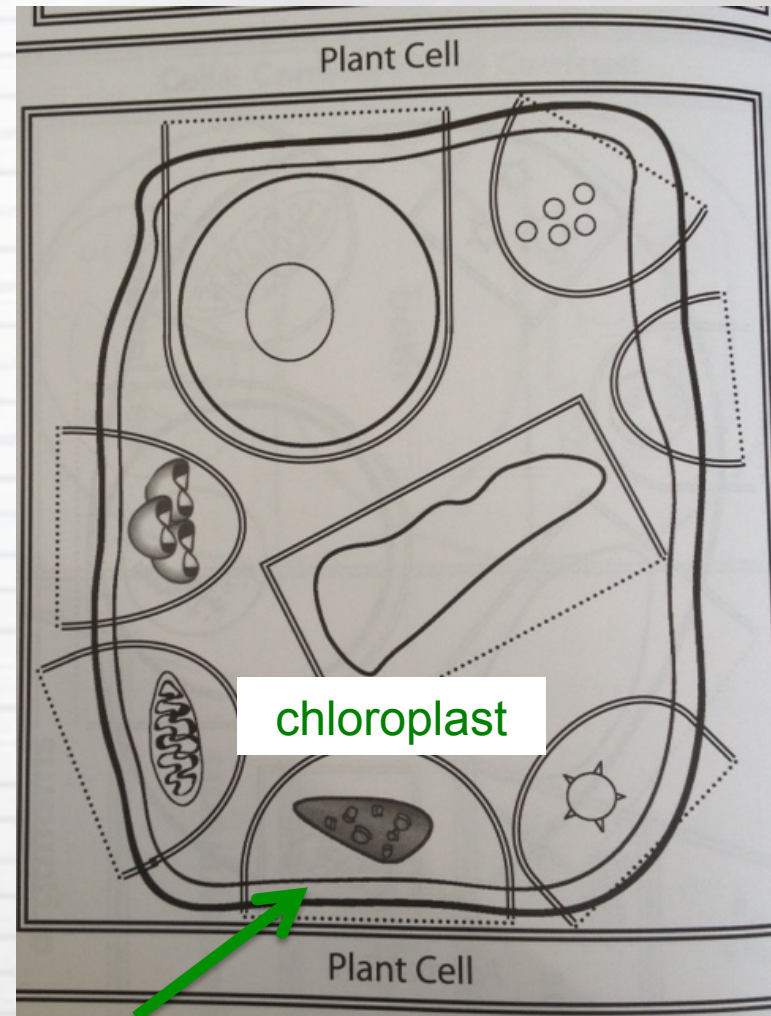
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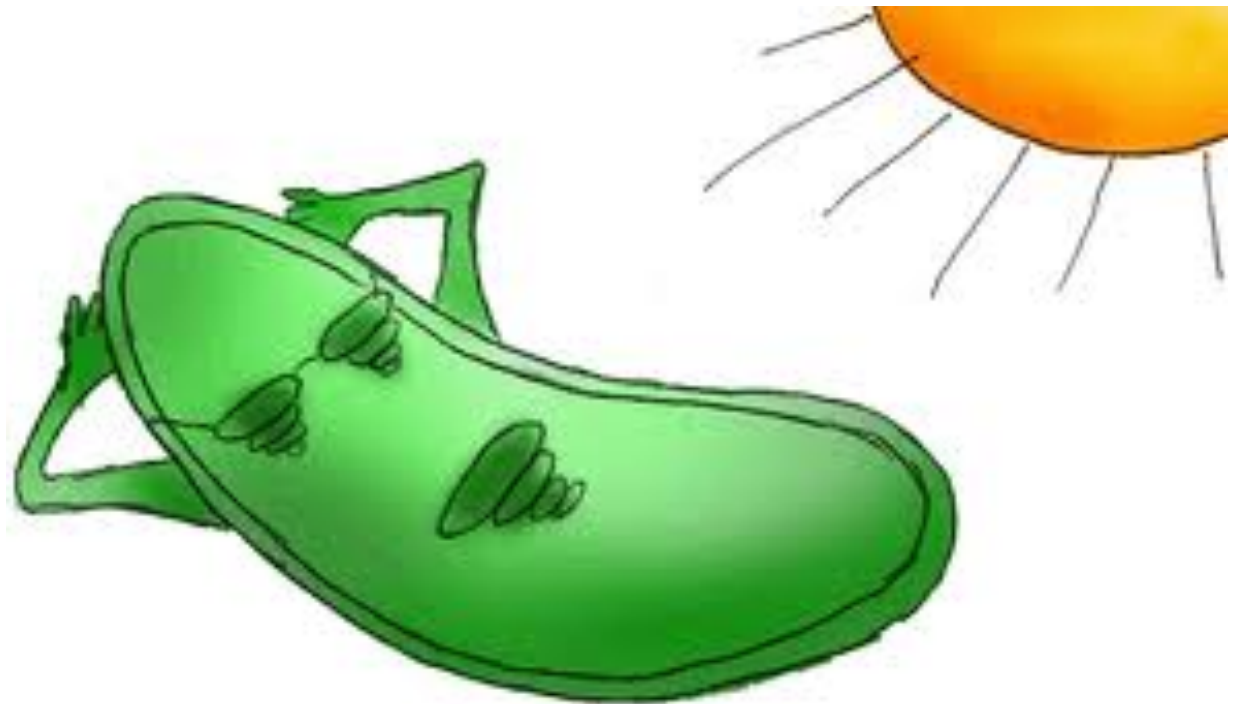


23 L

23 R

Chloroplast

- Where energy is made in the plant cell through photosynthesis
- Green energy



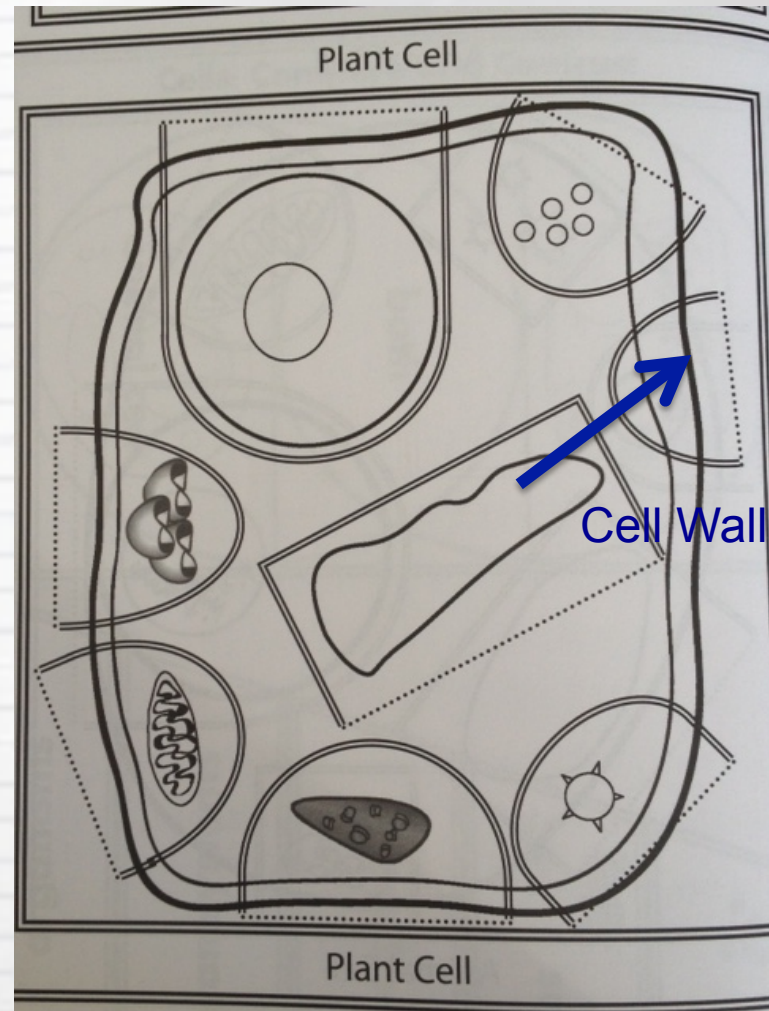
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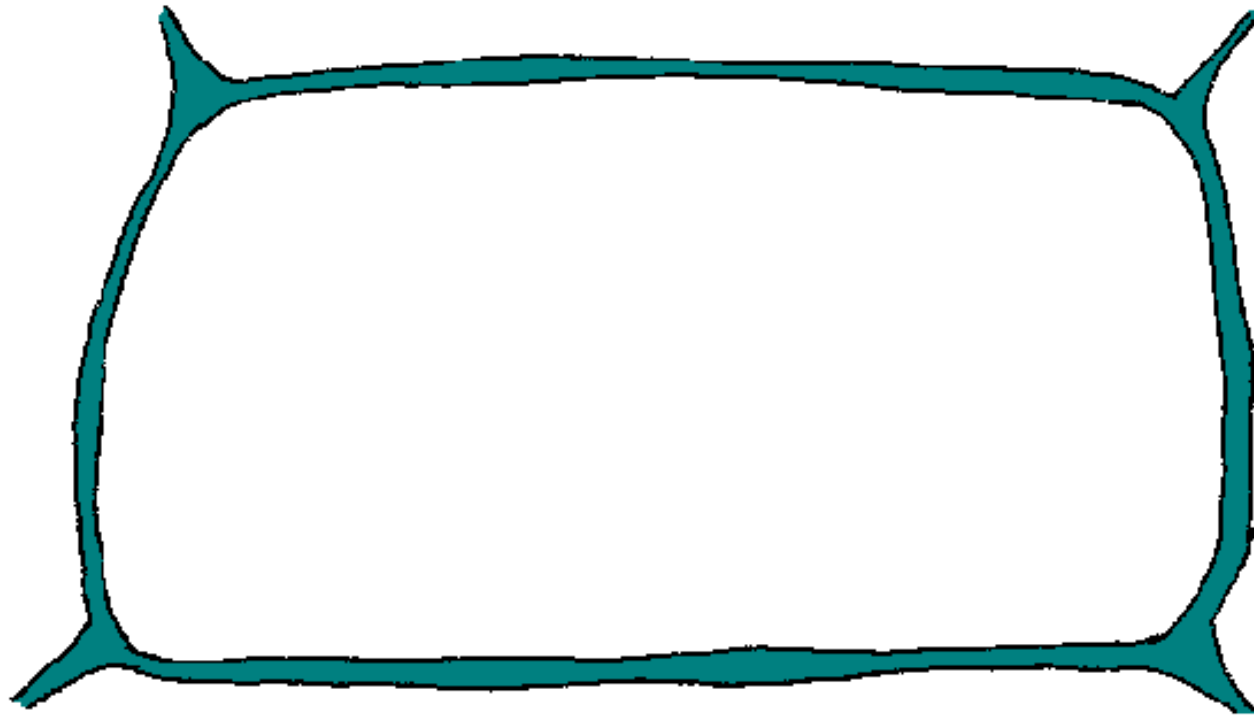


23 L

23 R

Cell Wall

- A strong wall that protects and provides structure so the plant can grow tall



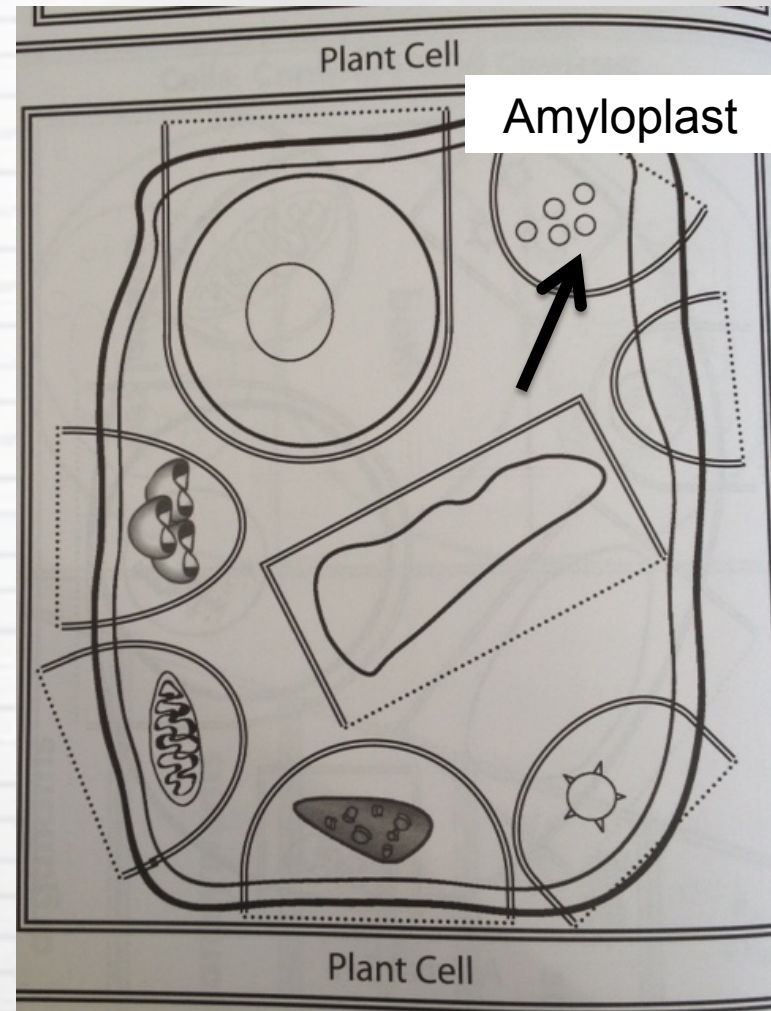
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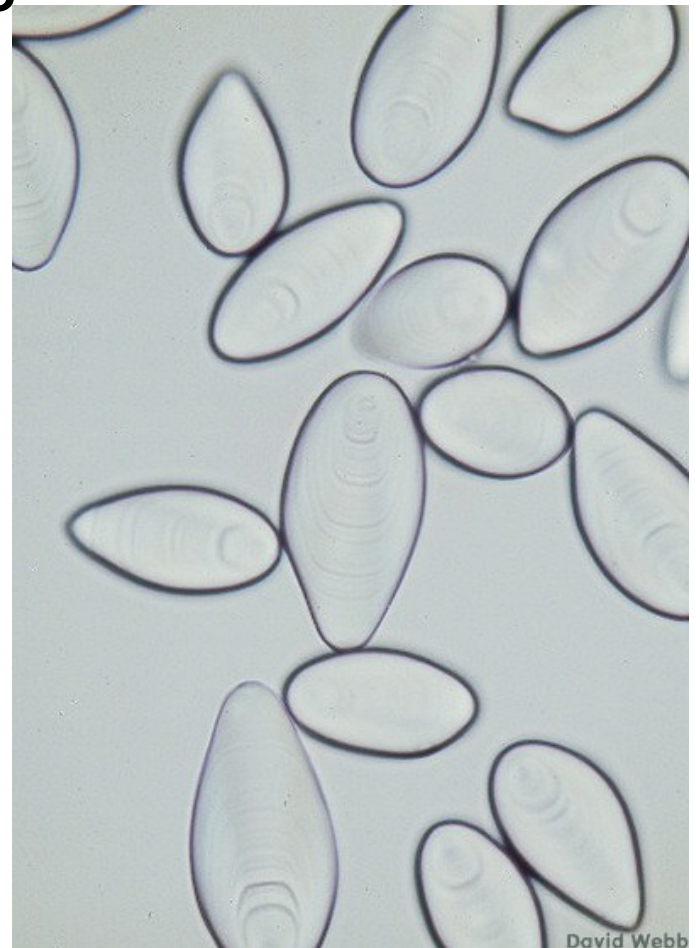


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Amyloplast

- Create and store starches
- Grocery store



Finish Up!

- Use your animal cell to fill out the organelles that plant/animal cells have in common.

Catalyst:

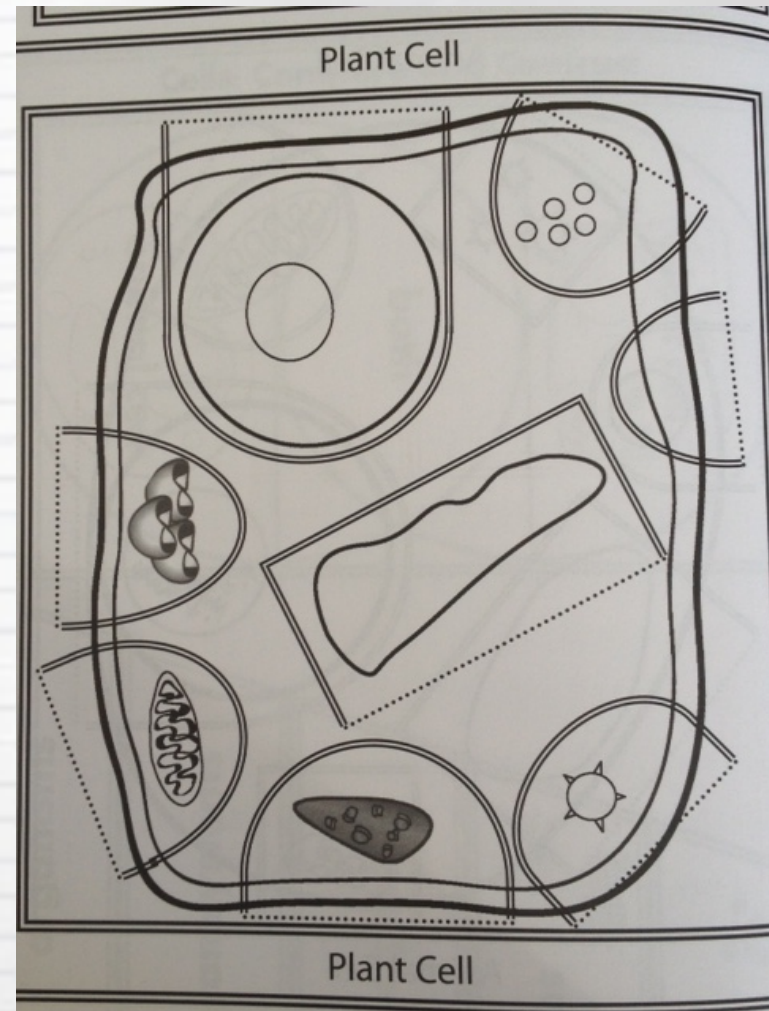
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Reflection:

Compare and contrast Animal
Plant and Prokaryotic cells

Plant Cell

11/17/16



23 L

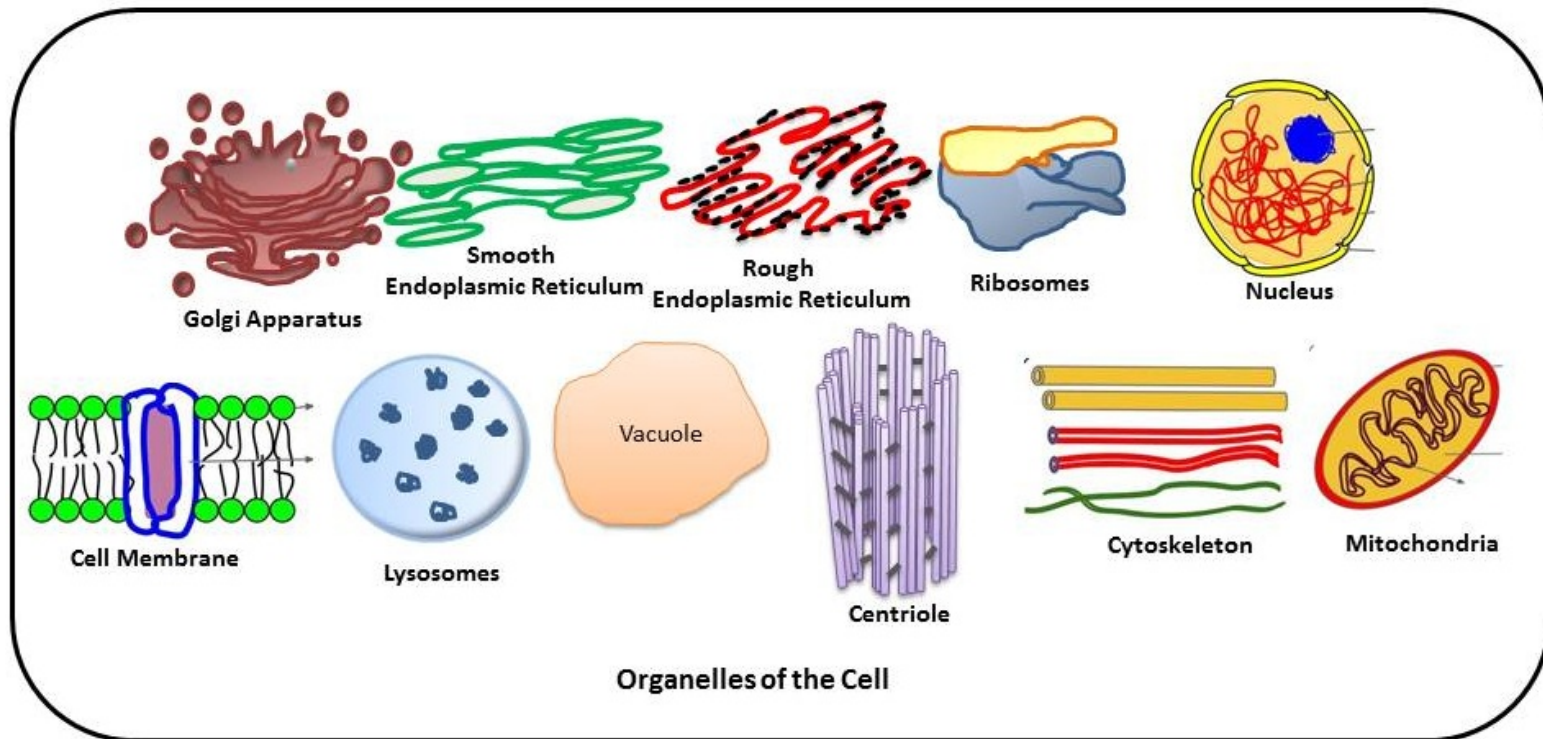
23 R

Let's Jigsaw These Questions

- 1. What is the job of the mitochondria?
- 2. What is the job of the chloroplast?
- 3. Do plants and animals contain both mitochondria and chloroplasts?
- 4. Mitochondria/chloroplasts in eukaryotic cells bear striking similarities to what?
- 5. Prokaryotes and mitochondria/chloroplasts contain the same 2 molecular structures. What are they?
- 6. How do mitochondria/chloroplasts replicate (reproduce)?
- 7. Name at least 3 lines of evidence suggesting that some organelles (mitochondria/chloroplasts) were once free-living prokaryotes?
- 8. What does endosymbiosis mean?
- 9. What is the endosymbiotic theory?
- 10. Who proposed the endosymbiotic theory and in what year?
- 11. Who were the predators, and who were the prey in the endosymbiotic theory?
- 12. What is aerobic respiration?
- 13. What did the primitive eukaryote give to the engulfed prokaryote?
- 14. What did the engulfed prokaryote give to the primitive eukaryote?

Endosymbiotic Theory movie

- <http://www.sumanasinc.com/webcontent/animations/content/organelles.html>



Organelles of the Cell