

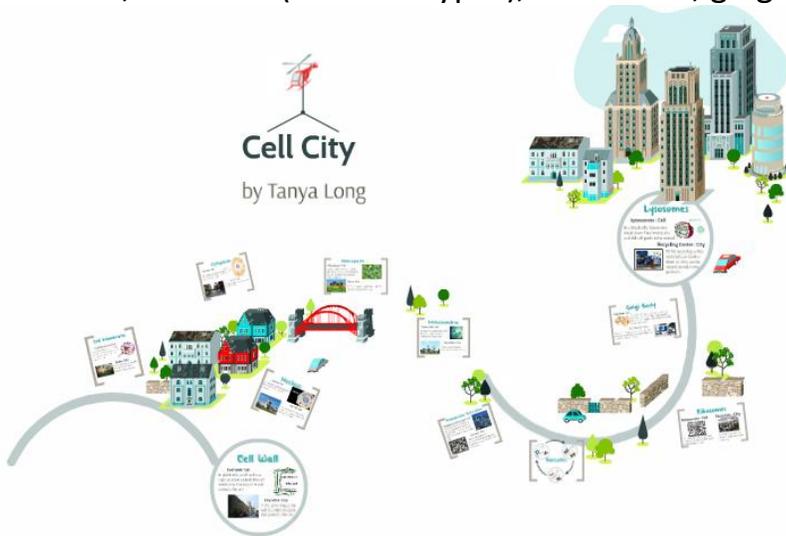
# Cell Analogy

## Prezi PROJECT

**DUE FRIDAY May 4, 2018**

**Choose system you would like to compare your cell to.** Some examples include... a school, a factory, a restaurant, a sports team, a business, etc. You may not use a city, since this was the example Mrs. Long used.

**The 11 cell structures and organelles of eukaryotic cells must be included:** cell wall, cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria, endoplasmic reticulum, vacuoles (all three types), ribosomes, golgi body, and lysosomes.



### Create a Prezi

1. The overall "canvas" of the Prezi is attractive and relates to the overall analogy. Includes title, student name and number.
2. There is a zoomed in "frame" for each cell structure that includes name of cell structure, function explained, analogy explained, picture of cell structure, and picture of analogy. Use at least two different styles of frames: circle, bracket, rectangle or invisible within the Prezi. Use consistent colors, fonts and format for all frames.

## Cell Wall

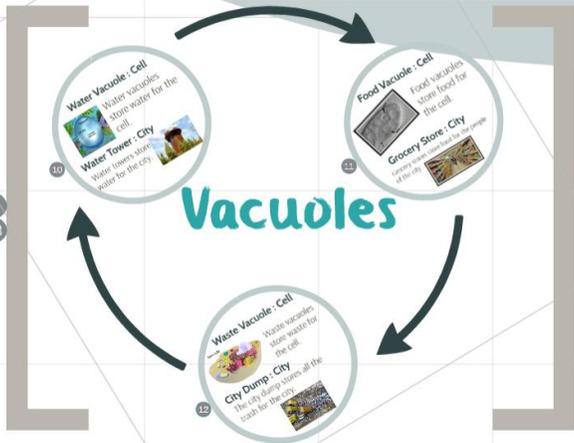
**Cell Wall: Cell**  
 In plant cells, a cell wall is a rigid structure outside the cell membrane that supports and protects the cell.



**City Wall: City**  
 In the same way, a city wall is a rigid structure that protects the city.



## Vacuoles



**Water Vacuole: Cell**  
 Water vacuoles store water for the cell.

**Water Tower: City**  
 Water towers store water for the city.

**Food Vacuole: Cell**  
 Food vacuoles store food for the cell.

**Grocery Store: City**  
 Grocery stores store food for the people of the city.

**Waste Vacuole: Cell**  
 Waste vacuoles store waste for the cell.

**City Dump: City**  
 City dumps store all the trash for the city.

3. Have an organized “path” going from frame to frame without excessive zooming or spanning.
4. Frames are “grouped” for the three types of vacuoles.
5. End Prezi by zooming back out to see the entire canvas.
6. Turn it in by “sharing” the completed presentation with your teacher using their email [longt@cajonvalley.net](mailto:longt@cajonvalley.net) or [mandellm@cajonvalley.net](mailto:mandellm@cajonvalley.net) by Friday, May 4 2018

Name \_\_\_\_\_ Period \_\_\_\_\_

# Cell analogy PREZI

## Presentation

CATEGORY	10	8	6	4
<b>Critical Thinking</b>	The connections between cell & analogy structures and functions are ACCURATE, EFFECTIVE and INSIGHTFUL such that the analogy demonstrates a THOROUGH UNDERSTANDING of the cell and analogy as a system.	The connections between cell and analogy structures and functions are ACCURATE AND RELEVANT such that analogy demonstrates a SOLID UNDERSTANDING of the cell and analogy as a system.	Some of the connections between cell and analogy structures and functions are identified such that the analogy demonstrates a BASIC/PARTIAL UNDERSTANDING of the cell and analogy as a system.	Few connections between cell and analogy structures and functions are such that the analogy DOES NOT DEMONSTRATE AN UNDERSTANDING of the cell and analogy as a system.
<b>Creative Thinking</b>	Prezi shows CONSIDERABLE ORIGINALITY. The content and ideas are presented in a unique and interesting way.	Prezi shows SOME ORIGINALITY. The content and ideas are presented in an interesting way.	Prezi shows an ATTEMPT AT ORIGINALITY in places.	Prezi shows NO EVIDENCE OF ORIGINALITY.
<b>Visual Communication</b>	Prezi is EXCEPTIONALLY ATTRACTIVE in terms of design, layout and neatness.  NO grammatical or spelling errors.	Prezi is ATTRACTIVE in terms of design, layout and neatness.  Only ONE MINOR grammatical or spelling error.	Prezi is ACCEPTABLY ATTRACTIVE though it may appear busy or boring.  Only a FEW MINOR grammatical or spelling errors.	Prezi is cluttered looking or confusing. It is NOT ATTRACTIVE.  Includes MANY grammatical errors that distract the audience.
<b>Content</b> Cell Wall Cell Membrane Cytoplasm Nucleus Chloroplasts Mitochondria *ER *Water vacuole *Food vacuole *Waste vacuole *Ribosomes *Golgi Body *Lysosomes (Not on Modified)	The functions of ALL cell structures are ACCURATELY and COMPLETELY explained. ALL frames include images of BOTH the cell structure and the analogy structure.	The functions of ALL cell structures are ACCURATELY explained. ALL frames include images of BOTH the cell structure and the analogy structure.	The functions of MOST cell structures are explained. MOST frames include images of BOTH the cell structure and the analogy structure.	The functions of MANY cell structures are NOT explained. FEW frames include images of BOTH the cell structure and the analogy structure.
<b>Presentation Literacy</b>	Student is completely prepared and has obviously rehearsed.  Volume is loud enough to be heard by all audience members throughout the presentation.  Speaks clearly and distinctly all (100-95%) the time, and mispronounces no words.  Stands up straight, looks relaxed and confident. Establishes eye contact with everyone in the room during the presentation.	Student seems pretty prepared but might have needed a couple more rehearsals.  Volume is loud enough to be heard by all audience members at least 90% of the time.  Speaks clearly and distinctly all (100-95%) the time, but mispronounces one word.  Stands up straight and establishes eye contact with everyone in the room during the presentation.	The student is somewhat prepared, but it is clear that rehearsal was lacking.  Volume is loud enough to be heard by all audience members at least 80% of the time.  Speaks clearly and distinctly most ( 94-85%) of the time. Mispronounces no more than one word.  Sometimes stands up straight and establishes eye contact.	Student does not seem at all prepared to present.  Volume often too soft to be heard by all audience members.  Often mumbles or can not be understood OR mispronounces more than one word.  Slouches and/or does not look at people during the presentation.

Total Score \_\_\_\_\_/50

Cell Analogy Planning Form (Student Sample)

What system are you comparing your cell structures to? Liam Tank  
 Use the following information to create your Prezi.

Cell Structure (part of cell)	Function (what it does)	My System Analogy (comparison)	Explanation of My System Analogy in complete sentence.
Cell Wall	In plant cells, a cell wall is a rigid structure outside the cell membrane that supports and protects the cell.	Liam's Rough skin	Liam's Rough skin is like a wall. He uses it to protect himself from any danger.
Cell Membrane	The cell membrane is a skin like structure on the outside of a cell that controls what enters and leaves the cell.	Liam's tongue	The tongue makes sure if any bad things come in your mouth you spit it right out because of the taste buds on your tongue.
Cytoplasm	Cytoplasm is the jelly like material that fills up the cell. All the other organelles are contained in the cytoplasm.	Liam's Blood	The blood allowed all of organs to keep it healthy and float.
Nucleus	The nucleus contains the DNA that directs all the cell's activities	Liam's Brain	The brain controls Liam's body and his movement.
Chloroplasts	In plant cells, chloroplasts make food for the cell using energy from the sun through the process of photosynthesis.	Liam's Calcium Powder	Liam's Calcium Powder helps him and his body because if he eats some food and it had the powder on top of it he will get a boost of energy.
Mitochondria	Mitochondria supply energy to the cell through a process called cellular respiration.	Liam's Light	Liam's light makes energy and heat so Liam can stay healthy.
Endoplasmic Reticulum	Proteins and other materials are transported along the ER to get them from one place in the cell to another place in the cell.	Liam's Heart	Liam's heart transports protein around using the blood veins that are connected to the heart. His heart also transports blood

Vacuoles			
Water vacuole	Water vacuoles store water for the cell.	Liam's Water bowl	This is a bowl were we keep Liam's water.
Food vacuole	Food vacuoles store food for the cell.	Liam's Food bowl	This is a bowl were we keep Liam's food.
Waste vacuole	Waste vacuoles store waste for the cell.	Liam's Poop	Liam poops to get rid of the gross and not needed things.
Ribosomes	In ribosomes proteins are made, which are needed to build, repair, and reproduce in a cell.	Liam's Immune System	The immune system makes sure that the food is all broken and later It will deliver the broken up food to his bottom.
Golgi Body	The golgi body receives proteins and other materials from the ER, then packages and delivers them to other parts of the cell, as well as outside the cell.	Liams Mouth	Liam eats to get protein and later on his body digests it and moves it all the way to the bottom and he poops it out.
Lysosomes	In animal cells, lysosomes break down food molecules and old cell parts to be reused.	Liam's Stomach	Liam's stomach break down food and breaks down old cells -parts so they can be reduced.

Teacher example of project:

<https://www.youtube.com/watch?v=kb6bzldZ4ng>

Student sample of Cell Analogy Project compared to class pet, Liam, the bearded dragon:

<https://prezi.com/p/1nnjfc8b3vnd/cell-liam/>

