

Metaphorical Cell Project



Objective: MS-LS1-2- Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the functioning of the cell as a whole.

As our cell unit comes to a close, your final project is to create a Metaphorical Model of a Cell. Remember, a metaphor makes a comparison between two unlike things without using the words “like” or “as.” The power of the metaphor is in finding similarities between objects that, on their surface, are not related. You will develop a metaphor for each organelle in either a plant or animal cell (your choice!) and create a model based on the metaphors you choose. For example, if your metaphor is “The nucleus is the brain of the cell,” in your model, you would include a brain NOT a nucleus. You must be able to justify your choices and explain why you selected the metaphor you did and how it is related to the actual function of a cell. Be creative but also be thoughtful in your choices.

You may choose to create a model of either an animal cell OR a plant cell. Whichever you choose be sure to include ALL of the necessary organelles:

Animal Cell Models Must Include:	Plant Cell Models Must Include:
<ul style="list-style-type: none">• Lysosomes• Golgi Body• Ribosomes• Smooth and Rough Endoplasmic Reticulum• Mitochondria• Nucleus• Cytoplasm• Cell Membrane• Vacuoles• Centrioles	<ul style="list-style-type: none">• Vacuoles• Chloroplasts• Golgi Body• Ribosomes• Smooth and Rough Endoplasmic Reticulum• Mitochondria• Nucleus• Cytoplasm• Cell Membrane• Cell Wall

Your metaphorical cell can either be a Poster or a PowerPoint Presentation. Whichever you choose be sure to follow all guidelines for that particular project choice:

Poster:	PowerPoint:
<ul style="list-style-type: none">• Minimum size: 12”x18”• All Organelles must be represented by a metaphorical picture• Pictures can be hand-drawn or from magazines, real photographs, newspapers, and/or from the internet. Images must be cut out and pasted onto your poster. Any pictures from the internet must be photographs or illustrations and cannot be diagrams already labeled as cell organelles.• Each image must be labeled with a description of the metaphor OR a number corresponding with a key. If needed, the key should explain each metaphor (Ex: 1. The nucleus is the brain because...). The key must be typed in size 12 Times New Roman Font.	<ul style="list-style-type: none">• Minimum: 11 slides• Include a title slide that has student name, date, and class period along with project title.• One Slide per organelle-- each slide must include a metaphorical picture.• Pictures can be from any reputable web source but the pictures must be photographs or illustrations, not diagrams and cannot already be labeled with cell organelles.• On each slide, include an explanation for the metaphor (Ex: The nucleus is the brain because...)

**Your metaphors may follow a theme if you would like but they don't need to. See examples at msbrownteaches6.weebly.com for sample project ideas.*

Metaphorical Cell Project Rubric

DUE DATE:

Student: _____ Hour: _____

Criteria	AD (4) Exceeds Expectations	PR (3) Meets Expectations	BA (2) Approaching Expectations	MI (1) Well Below Expectations
Metaphor* (What is the comparison?)	A clear, well thought out metaphor for each organelle. Main idea is supported by detailed information	The metaphor is clear but supporting information is general.	The metaphor is somewhat clear but needs more supporting information.	The connection between the organelle and the metaphorical representation is unclear or seemingly off-base.
Justification* (Why is the comparison a good choice?)	Relevant, high-quality details give reader important insight that goes beyond the obvious or predictable.	Supporting information is relevant but may be an obvious/predictable choice.	Key information regarding the connection between organelle and metaphor are unsupported.	Evidence/rationale is unclear or not related to metaphor. Relationship between organelle and metaphor is unclear.
Conventions	No mistakes in CUPS	Few mistakes in CUPS	Multiple noticeable mistakes in CUPS	Consistent errors in CUPS
Total:				
Points will be Deducted from total score for the following: Missing an organelle (-5 points each) Missing pictures (-4 points each) Poster/Key Wrong dimensions or missing parts OR PowerPoint missing slides or difficult to read (-2 points each)				
Final Score:				

*This category will be used for each individual metaphor.

AD: 70+

PR: 51-69

BA: 36-50

MI: ≤35