

Biology  
Graphic Assignment: *A Cell Simile*  
Due: \_\_\_\_\_  
Possible points: 30

Name \_\_\_\_\_  
Partner \_\_\_\_\_  
phone # \_\_\_\_\_

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You have embarked on a study of the CELL. Understanding the cell has been the springboard for the development of medicine and the treatment of disease. This graphic assignment will test your ability to communicate your understanding of the inner workings of the cell. You will explore the roles of key cellular organelles and illustrate the interdependence of these organelles in the cell's life.

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### The Assignment

1. Choose a partner with whom you can work effectively. Do your after school schedules match? Do you live close to each other?

2. Select a simile for the functioning of the cell. You must also decide whether to represent a PLANT CELL OR AND ANIMAL CELL. Your simile doubles as the title of your poster:

**"A (plant or animal) cell is like a \_\_\_\_\_."**

Choose from one of these: factory, city, submarine, school

Or, you may substitute one of your own, but you MUST obtain clearance first.

3. Create metaphorical details to support the dominant impression you selected above. The logic and richness of metaphorical details enables you to establish your central image of the cell and its parts, which function together to enable the cell to grow, acquire energy, make wastes, divide, communicate, etc. If you have decided to represent...

...AN ANIMAL CELL, USE:

CELL MEMBRANE  
CYTOPLASM  
ROUGH ENDOPLASMIC RETICULUM  
GOLGI BODY  
MITOCHONDRIA  
NUCLEUS  
DNA  
LYSOSOME  
VACUOLE

...A PLANT CELL, USE:

CELL WALL  
CELL MEMBRANE  
CYTOPLASM  
ROUGH ENDOPLASMIC RETICULUM  
GOLGI BODY  
NUCLEUS  
DNA  
CHLOROPLASTS  
VACUOLE

4. Next to each metaphorical detail/cell part, make a brief statement (no more than two sentences) explaining its relevance to your simile. EXAMPLE: "Just as a security gate determines what enters or leaves a factory, so the cell membrane determines what can enter or leave the cell."

5. Strive for standards of excellence.

A. use sturdy poster board no larger than 14" X 22". Your graphics and associated labels should fill the poster, but NOT out to the edges (It shouldn't look crowded.)

B. PLAN your poster before you start to draw, color, or letter!

C. A border enhances the look of your poster. Lettering should be neat; if done on the computer, neatly glue it to the poster board.

D. Graphics should dramatically illustrate your central cell metaphor without overwhelming the *thinking* behind it.

6. Timing: words to the wise -- Do not expect rich metaphorical details to spring full-grown into your mind the night before the poster is due. Think each day about the information you are learning about the cell. Make rough drafts of the poster. Doodle. Jot down ideas as they come to you.

7. Assessment (see grading sheet behind)

A. Students will have the opportunity to evaluate their own posters, and other students' posters.

B. Both students in the team will earn the same grade.

8. DUE DATE: \_\_\_\_\_. You WILL be asked to share with the class the virtues of your poster, so think about what you will say.

