

Organelle “Cell City” Project

You will be working with your table group for this project. In your groups, you will teach yourselves about the organelles and their functions. The project entails comparing cell organelles as the parts of a military base, a state, a country, an athletic team/stadium, a kitchen, a house, or even as a concert band. Your table group can choose which ever item to compare to a cell for this project

Each organelle has a job to do for the cell. What you and your group are supposed to do is to compare the job of a real life object to the function of an organelle. For example, in a city, I will explain what that organelle does and how it correlates to a person, place or thing in the city example.

Example: The nucleus holds and protects the DNA which is the instructions for the entire cell.

The mayor of a city directs the city and gives instructions on how the people of the city will be protected.

The Project:

Your group must choose a place or thing to compare to cell. You are required to do 8 organelles, and more directions for which are stated below.

8 are required – **the bolded organelles must be included.** Choose three more to represent in your drawing.

- **Nucleus**
- **Mitochondria**
- **Cell Membrane**
- **Cell Wall**
- **Chloroplasts**
- Vacuoles
- Lysosomes
- Ribosomes
- Golgi Body
- Cytoskeleton
- Cytoplasm
- Nucleolus
- Endoplasmic Reticulum

Each group member must contribute at least two organelles to the project. You have to think about how a part of your place or thing relates and compares to the organelles of a cell.

For this project, you will be doing a large drawing or 3D model of whatever you are comparing to a cell and its organelles. It should not be much bigger than a regular poster board (22” x 28”). All parts of the model should be labeled with at least eight parts of the place or thing your group is comparing to a cell along with of the name of the organelles they are being used to compare. Each group member must draw their own part for the organelle they looked up.

Also your group will have to turn in a paper with the comparisons of the parts of your groups place or thing to the cell’s organelles functions. Make sure you and your group members are using proper grammar and spelling. Again, here is an example of how to write about the comparison analogy.

Example: The nucleus holds and protects the DNA which is the instructions for the entire cell.

The mayor of a city directs the city and gives instructions on how the people of the city will be protected.

A grading rubric is located on the back of this instruction sheet. There is a group member grading part of the assignment so everyone must contribute to your group project.

Due Date: _____

Organelle “Cell City” Project Grading Rubric

| 10 Points | 8 Points | 6 Points | 4 Points | 2 Points |
|---|---|--|--|--|
| Colorful, neat, and no grammar issues and a clear effort is evidenced by finished project | Excludes one item from the requirements of a 50 point project | Excludes two items from the requirements of a 50 point project | Excludes three items from the requirements of a 50 point project | Excludes 4 or more items from the requirements of a 50 point project |
| All 5 required organelles are represented along with 3 more organelle include | | | | |
| All 8 organelles are explained separate sheet of paper | | | | |
| All 8 organelles are clearly labeled on the project | | | | |
| Group member contributed fully to the project without any problems | | | | |

Score: _____/50