A Cell is Like A…

(Model Project)

In this project you will be making an analogous poster/model of a plant or animal cell. This means, you will abe comparing the cell and its organelles to a social system/structure of some kind. For example, you could say:

* A cell is like a city
* A cell is like a medieval kingdom
* A cell is like an army
* A cell is like a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(your idea here)

Your **model/poster** will look like **the cell you are creating or the social system.**  However, you should have EACH of the following organelles represented in your model:

* Cell membrane (animal cell) or cell wall (plant cell)
* Nucleus
* Ribosomes
* Endoplasmic reticulum
* Mitochondria
* Golgi complex
* Lysosomes
* Vaculoes (plant cells only)
* Chloroplasts (plant cells only)

For **EACH** part in your model, you are to **PRINT OUT A LABEL WITH THE NAME OF THE ORGANELLE AND A PICTURE OF THE CORRESPONDING CELL ORGANELLE or SOCIAL SYSTEM PART**.

*For example, if you are comparing your cell to a city, your nucleus could be compared to “city hall,”* likewise the *lysosomes would be compared to the “garbage trucks/landfills”* .

In your model, the nucleus should have a label that has a picture of city hall and it should say “nucleus” .

You will also **write a short composition** (about 3 paragraphs) explaining how the system to which you chose to compare the cell is a good analogy. In this composition, you will explain each organelle’s comparison in 2-5 sentences.

*Ex: The nucleus is compared to city hall in this cell model because just like the city hall in a city or township, the nucleus is the control center of a cell. The nucleus holds all the information for the cell to carry out its functions. Similarly, city hall is where the instructions and laws for the city’s functioning are carried out.*

If you choose to do a poster, your poster board should be white and 22” X 25” in diameter.

**Content Standards Addressed:**

***7th Science:***

1. All living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope. As a basis for understanding this concept:
   1. Students know cells function similarly in all living organisms.
   2. Students know the characteristics that distinguish plant cells from animal cells, including chloroplasts and cell walls.
   3. Students know the nucleus is the repository for genetic information in plant and animal cells.
   4. Students know that mitochondria liberate energy for the work that cells do and that chloroplasts capture sunlight energy for photosynthesis.