Option 2: Cell Model

**Procedure:** For this project you will build your very own **3-D** model of a plant or animal cell. You can use any materials you like, but it **should not be too big** to transport, **or too small** where you’d sacrifice detail. Please just use things around your house. There is no need to go out and drop $20 on materials.

**Requirements:**

* Groups of 1- 3 (individuals can choose to model a plant or animal call, but groups **MUST** make a plant cell model).
* For your project you need to **include and label** all of the organelles listed below. (They should be large enough to see). Labels can be right on your model, or you can number the models structures and include names on a sheet of paper.
* You must also submit a **piece of paper that explains the function** of each cell structure, and explains what **the differences between plan and animal cells** are.

Tips: Use your notes for help in labeling and constructing. The internet will also be helpful for ideas.

ORGANELLE LIST

Vacuole Cell Membrane Cell Wall (plant only)

Nucleus Endoplasmic Reticulum Chloroplast (plant only)

Mitochondria Ribosomes Cytoplasm

Golgi Apparatus Lysosomes

**Evaluation*:***

1. Knowledge and Understanding: accurate, complete information indicating knowledge of part and its function, differences between plant and animal included – **10 points**
2. Design Process / Problem solving:
   1. Creativity – fresh and interesting approach - **5 points**
   2. Presentation - well prepared, easy to understand, can answer questions - **3 points**
   3. Self-Evaluation –**2 points**

Parts of a Cell Projects

Due Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Option 1: Cell Structures and Functions Song / Rap

**Requirements:**

* Groups of 1- 3.
* All organelles must be included.
* The **function of each organelle** in the cell is explained.
* You must state the **differences** between plant and animal cells
* Your song must make sense, and a **copy of your lyrics** must be handed in with your presentation. *(Note – you do not need to use the entire song, just as much as you need)*

**Procedure:** Using the tune of a popular song, change the original song lyrics to words that describe the different structures in plant and animal cells and their functions. Make sure you include the differences between plant and animal cells. You may create a video or CD presentation, or present your song to class live. You can choose your own song, but it is first come first served so tell the teacher as soon as possible (we don’t want everyone in the class choosing the same song)!

Tips: Use your notes / text to help you with function information. Pick a song that you can easily perform or record so that it is recognizable.

ORGANELLE LIST

Vacuole Cell Membrane Cell Wall

Nucleus Endoplasmic Reticulum Chloroplast

Mitochondria Ribosomes Cytoplasm

Golgi Apparatus Lysosomes

**Evaluation*:***

1. Knowledge and Understanding: accurate, complete information indicating knowledge of part and its function, differences between plant and animal included – **10 points**
2. Design Process / Problem solving:
   1. Creativity – fresh and interesting approach - **5 points**
   2. Presentation - well prepared, easy to understand, can answer questions - **3 points**
   3. Self-Evaluation –**2 points**