

# Cell Model Project

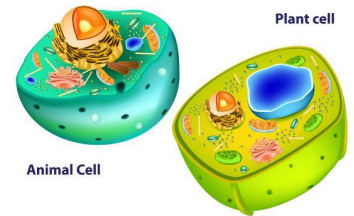
Name:

Date:

Block:

**Objective:** To create a model of either an animal or plant and discuss the function of each organelle.

Animal and plant cells are both eukaryotic cells that contain a number of structures called organelles. Each organelle is responsible for specific and unique functions that allow the cell to survive, grow, and replicate. In this activity, you will be creating a model to visually depict organelles and discuss their roles in a cell.



**Due date:** \_\_\_\_\_

**Choose one of the following:**

Option 1: Create a pop up

- Choose either an animal cell or a plant cell
- Using a large piece of paper, draw a diagram of either an animal cell or a plant cell. Be sure to include the organelles listed below
- Create small pop ups for each organelle
- In the pop up, name the organelle, discuss its function, and include a fun fact about the organelle
- Be sure to colour and fine line the diagram

Option 2: Create a cell wheel

- Choose either an animal cell or a plant cell
- Draw a diagram of the cell. Be sure to include the organelles listed below
- Number each of the organelles from 1 – 10
- Construct your cell wheel
- Name the organelle and discuss its function in one flap
- Include a fun fact about the organelle in the second flap
- Be sure to colour and fine line the diagram and the cell wheel

Option 3: Create a 2-dimensional model

- Choose either an animal cell or a plant cell
- Using construction paper or recyclable material, construct a model of the cell. Be sure to include the organelles listed below
- Number each of the organelles from 1 – 10
- On a separate piece of paper, name the organelle, discuss its function, and include a fun fact about the organelle

Option 4: Create an analogy

- Imagine that a cell is like a house, a school, a mall etc.
- Brainstorm which parts of your analogy represents each of the organelles listed below
- All organelles must be represented and labeled.
- Draw out each analogy
- Briefly discuss what each organelle represents in your analogy (The nucleus is like the principal in a school because...)
- Display your knowledge visually on an 11x14 sheet of paper.

*More information on the back...*

The following organelles need to be included in your assignment:

- |                 |                          |                         |                          |
|-----------------|--------------------------|-------------------------|--------------------------|
| • Nucleus       | <input type="checkbox"/> | • Vacuoles              | <input type="checkbox"/> |
| • Cell membrane | <input type="checkbox"/> | • Endoplasmic Reticulum | <input type="checkbox"/> |
| • Mitochondria  | <input type="checkbox"/> | • Golgi body            | <input type="checkbox"/> |
| • Cytoplasm     | <input type="checkbox"/> | • Lysosome              | <input type="checkbox"/> |
| • Ribosomes     | <input type="checkbox"/> | • Vesicles              | <input type="checkbox"/> |

**Rubric:**

	<b>Emerging</b>	<b>Developing</b>	<b>Proficient</b>	<b>Extending</b>
<b>Content</b>	<p>Content is inaccurate and/or incomplete.</p> <p>Text is copied/not written in the student's own words.</p>	<p>Some required elements are missing and/or incomplete.</p> <p>Some explanations are lacking detail and/or not presented clearly.</p>	<p>All required content is included.</p> <p>Information is easy to follow and understand.</p> <p>Content is mostly accurate.</p> <p>Some explanations may lack detail and/or may not be presented in a logical order.</p>	<p>All required content is included.</p> <p>Information is accurate, detailed, and well-explained.</p>
<b>Design</b>	<p>Visual lacks picture, clarity, and is disorganized.</p> <p>Design is incomplete and/or is not colourful.</p> <p>Organelles are not labelled and it is difficult to understand what each diagram is being represented as.</p>	<p>Design is a bit disorganized and a rushed effort has left the assignment unorganized and hard to follow.</p> <p>A few pictures are included.</p> <p>Some colours are used, however, more polishing of the final assignment could be done</p> <p>Some labels are included</p>	<p>Design is creative and attractive.</p> <p>Supportive pictures are included.</p> <p>Many colours used.</p> <p>Most labels are included.</p>	<p>Design is extremely detailed, neat, and creative.</p> <p>Information is highly organized.</p> <p>Many pictures and colours are used.</p> <p>Colour and visuals work together to grab your attention.</p> <p>Labels are included to accurately depict each organelle.</p>