Eukaryotic Cookie Cell Models…Um num num!

Objective-By the end of this activity, you will be able to:

* Name the different organelles of a plant and animal cell;
* Compare and contrast organelles found in a plant or animal cell;
* Describe the function of each organelle.

Directions: You will be assigned to create a model of either a plant or animal cell. **Please read the procedure first** and follow it carefully. DO NOT EAT ANYTHING UNTIL WE ARE COMPLETLEY FINISHED AND I TELL YOU THAT YOU MAY.

Procedure:

1. Clean off the top of your desk with Simple Green spray and a paper towel.

2. Obtain a plastic knife and paper towel or napkin from the lab station.

3. When you are in your seat and patiently waiting, I will pass out the cookies. In the space below, circle whether you will be creating an animal or plant cell cookie.

My cookie is a: EUKARYOTIC ANIMAL CELL EUKARYOTIC PLANT CELL

How do you know?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. You may choose any candy you wish to represent the following organelles. BEFOR YOU START DECORATING, YOU MUST fill in the table below:

|  |  |  |
| --- | --- | --- |
| Candy/color | Organelle | Function |
|  | Nucleus |  |
|  | Ribosome |  |
|  | Endoplasmic reticulum  (both rough and smooth ER) |  |
|  | Cytoplasm |  |
|  | Lysosome |  |
|  | Golgi |  |
|  | Vacuole(several small in animal) -or-  Vacuole(1 large in plants) |  |
|  | Mitochondria |  |
|  | Cell Membrane |  |

5. With the plastic knife, spread a layer of frosting onto the cookie, leaving a small space around the side like a pizza crust. This space represents the **cell membrane** and the frosting represents the **cytoplasm.**

6. Decorate your cookie according to the table above.

**Post-Lab Questions**

1. Draw a picture of your cell below. Include the candy/color.
   1. **On your diagram, draw an arrow to each candy and write the *scienti*fic name for the organelle.**
2. Complete the following analogies:

Examples:

Cup : Water as Soap Dispenser: soap Gas : Car as Food : Humans

1. Brain : Body as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Cell

Explain your answer:

1. Fence : Yard as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Cell

Explain your answer:

1. Water : Pool as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:Cell

Explain your answer:

1. In your opinion, what is the most important organelle? Explain why.
2. What specifically do you think would happen if the cell did not have any lysosomes? Do not just tell me “the cell would die.”

EXPLAIN your answer: