Edible Cell Model-Instructions

Supplies Needed:

- Fruit roll-ups (square)
- Wax paper/something to build cells on
- Assortment of candy (gumballs, nerds, tootsie rolls, twizzlers…etc)

Directions:

1. Break students into small groups (2-4 per depending on class size)
2. Assign each group either a plant or animal cell.
3. Provide students with the materials and specify that the fruit roll up is the base where all the organelles will sit (cytoplasm).
4. Students are tasked to use the candy provided to them to build a model of a cell. They must include all the organelles required of them on their lab sheet, and all group members must participate.
5. In order to be able to eat the cell model at the end, students must do the following:
    a. Complete a full cell model with the candy
    b. Have taken a picture of the model and emailed it to teacher
    c. Have completely filled out the accompanying lab sheet
    d. Have been checked off by teacher (teacher verifies picture was received as well).
6. Eat the cell! ☺

Edible Cell Model-Animal Cell

Today you will be creating a model of an animal cell using a variety of candy. Your task is to decide which candy would best represent the specific organelles, and build the model accordingly. Follow the directions below in order to complete this task. Remember, you must not eat any candy until instructed to do so!

Supplies

- 1 fruit roll up
- 1 piece of wax paper
- Toothpicks
- Tape
- Assortment of candy

Directions

1. First, lay out your wax paper onto the desk.

2. Unwrap the fruit roll up and lay it flat on the wax paper. The fruit roll up will serve as the base of the model onto which all your organelles will be built. For our model, the fruit roll up is serving as the cytoplasm!

3. You and your group must now decide what candy can best represent each organelle. Be prepared to explain why you chose each in the lab data chart below. The animal cell must include the following organelles, and each organelle must be labeled:
    a. Nucleus
    b. Plasma Membrane
    c. Mitochondria
    d. Ribosomes
    e. Vacuoles (small)
    f. Lysosome

4. After completing your model, you must take a picture of it and email the photo to your teacher.

5. Finally, you must complete the lab sheet below. In order to eat the cell model, all of the following steps must be completed.
    a. Complete a full cell model with the candy and labels
    b. Have taken a picture of the model and emailed it to teacher
    c. Have completely filled out the accompanying lab sheet
    d. Have been checked off by teacher

6. Do not eat anything before you are finished, even extra materials. Doing so will result in points deducted from your lab grade!!

Animal Cell Model Data Sheet

In the chart below, fill out what candy you used for each organelle. Then, you need to justify why that candy is a good representation, and explain what the organelle does.

Organelle	Candy Used	Why?	Organelle Function
Nucleus			
Plasma Membrane			
Mitochondria			
Ribosomes			
Vacuoles (small)			
Lysosome			

1. With your group, give a general description of a eukaryotic cell.

2. What structures are different here than if you were building a plant cell? What might you have used to represent them?

Edible Cell Model-Plant Cell

Today you will be creating a model of an animal cell using a variety of candy. Your task is to decide which candy would best represent the specific organelles, and build the model accordingly. Follow the directions below in order to complete this task. Remember, you must not eat any candy until instructed to do so!

Supplies

- 1 fruit roll up
- 1 piece of wax paper
- Toothpicks
- Tape
- Assortment of candy

Directions

1. First, lay out your wax paper onto the desk.

2. Unwrap the fruit roll up and lay it flat on the wax paper. The fruit roll up will serve as the base of the model onto which all your organelles will be built. For our model, the fruit roll up is serving as the cytoplasm!

3. You and your group must now decide what candy can best represent each organelle. Be prepared to explain why you chose each in the lab data chart below. The plant cell must include the following organelles, and each organelle must be labeled:
    a. Nucleus
    b. Plasma Membrane
    c. Cell Wall
    d. Mitochondria
    e. Ribosomes
    f. Vacuole (large)
    g. Chloroplasts

4. After completing your model, you must take a picture of it and email the photo to your teacher.

5. Finally, you must complete the lab sheet below. In order to eat the cell model, all of the following steps must be completed.
    a. Complete a full cell model with the candy and labels
    b. Have taken a picture of the model and emailed it to teacher
    c. Have completely filled out the accompanying lab sheet
    d. Have been checked off by teacher

6. Do not eat anything before you are finished, even extra materials. Doing so will result in points deducted from your lab grade!!

Plant Cell Model Data Sheet

In the chart below, fill out what candy you used for each organelle. Then, you need to justify why that candy is a good representation, and explain what the organelle does.

Organelle	Candy Used	Why?	Organelle Function
Nucleus			
Plasma Membrane			
Cell Wall			
Mitochondria			
Vacuole (large)			
Ribosomes			
Chloroplasts			

1. With your group, give a general description of a eukaryotic cell.

2. What structures are different here than if you were building an animal cell? What might you have used to represent them?