

SCIENCE - Unit 2 Superstructure: Cells and DNA

Objectives:

- To identify and describe the basic parts of plant and animal cells
- To gain a basic understanding of DNA and how it carries genes

Resources/Materials:

- Week 4 Slideshow
- Materials for building an edible plant cell model (see below)

Instruction:

- Using the Week 4 slideshow, introduce this week's concepts. (20 minutes)

Activity – Build a Plant Cell Model:

- Students will learn the basic parts of a plant cell.

Materials Needed:

- Square graham crackers (base of the cell)
- Frosting (cytoplasm)
- Small candies (e.g., M&Ms for nucleus, sprinkles for ribosomes, Twizzler Pull aparts for mitochondria)
- Green fruit roll-ups (chloroplasts)
- Thin pretzel sticks (cell wall)
- Paper plates (one per student)
- Plastic knives for spreading frosting

Preparation:

1. Set up a materials station with all ingredients separated into bowls or trays.
2. Ensure the student(s) has a workspace with a paper plate.

Activity Instructions:

1. **Model Building (20-25 minutes):**
 - Hand out the graham crackers on paper plates.
 - Step-by-step:
 1. Spread frosting on the base with a spoon or knife—this is the cytoplasm.
 2. Add an M&M in the center for the nucleus.
 3. Place a few gummy worms around for mitochondria.
 4. Sprinkle a few sprinkles for ribosomes.
 5. Add green fruit roll-ups for chloroplasts and outline the edge with pretzel sticks for the cell wall.

- Encourage students to refer to their worksheet as they build.
- 2. **Wrap-Up and Snack Time (5 minutes):**
 - Let students eat their creations (if safe and allowed)!
 - Challenge students to explain the parts and function to each other as they eat.