

SCIENCE: Building an Animal Cell

Objectives:

- Students will learn about the structure and function of plant and animal cells by building their own model of an animal cell using craft materials.
- They will identify key parts of each cell and understand their functions.

Materials/Resources:

- Week 4 Slideshow
- Playdough (in various colors)
- Small Paper plates (desert size - for cell wall)
- Simple diagram of animal cell (included in slideshow - print as needed)
- Small plastic bags (optional, for storing cells)

Instructions:

1. **Start by introducing cells:**

“Cells are the building blocks of life. All living things are made of cells. There are different types of cells, but today we will learn about plant cells and animal cells.” Teach this week’s memory fact.

2. **Discuss key parts of the cells:**

- **Plant Cells:** Explain that plant cells have a **cell wall** (to provide structure), **chloroplasts** (for photosynthesis), and a **large central vacuole** (for storing water).
- **Animal Cells:** Explain that animal cells have a **cell membrane** (to control what enters and leaves), **cytoplasm** (network for transportation), **mitochondria** (the powerhouse of the cell), **vacuoles** (warehouses that store food), and **nucleus** (the brain of the cell).

3. **Show the students a diagram** of both a plant and an animal cell, pointing out the different organelles and explaining their functions.

Step 2: Build Your Own Animal Cell

1. **Give each student a paper plate** as the cell membrane.

2. **Using playdough or modeling clay**, have the students build the structure of their cells:

- For **animal cells**, use a circular shape to represent the **cytoplasm**.

3. **Add the organelles:**

- **Nucleus:** Use a small ball of clay and place it in the center of the cell.
- **Mitochondria:** Use small oval-shaped pieces of clay to create mitochondria and place them inside the cell.
- **Vacuole:** Use small pea-shaped pieces of clay to create vacuoles. These store food to nourish the cell.

Step 3: Reflection and Wrap-Up

1. **Conclude by summarizing:**

“Cells are the building blocks of life. Plant cells have some extra parts, like the rigid, rectangular cell wall and chloroplasts, which help them make food from sunlight. Animal cells are more flexible, and their main parts help them move and get energy.”