

Cell Biology Grade 8

Build an Animal Cell- Pre Activity

Assessment Cross-curricular

Build model Arts

Big Ideas

50 minutes

Cells are the basis of life.

Systems are interdependent.

Specific Expectations

- 1. Demonstrate an understanding of the postulates of the cell theory (3.1);
- 2. Identify structures and organelles in cells, including the nucleus, cell membrane, cell wall, chloroplasts, vacuole, mitochondria, and cytoplasm, and explain the basic functions of each (3.2);
- 3. Use appropriate science and technology vocabulary, including organelle, diffusion, osmosis, cell theory, selective permeability, membrane, stage and eyepiece, in oral and written communication (2.5).

Description

Introduce the various organelles found within an animal cell and their various functions.

Materials

- **These are SUGGESTED materials: -Scissors, Glue, tape, coloring utensils
- -Paper plates, pie plates, large ziploc bags
- -Pom poms (various colors)
- -Various types of dried pasta
- -Construction paper

- -String (various colours)
- -Plasticine (various colors)
- -Pipecleaners (various colors)
- -Styrofoam cups

Introduction

In groups of 3-4, students will build their own models of an animal cell. They may use any of the materials provided or bring in their own.

Their models must include all the major structures found in an animal cell as well as a legend that includes the function of each structure.

Action

- 1. Divide class into groups.
- 2. Describe the challenge to the students the day before to allow time for planning and to allow for any materials they wish to bring from home.
- 3. Students may use the materials/resources listed as a reference for their build.
- 4. Challenge the students by asking them to make part of the model demonstrate a cellular function (i.e. lysosomes breaking down waste material)

Consolidation/Extension

- 1. Students do a show and tell where teams describe their model.
- 2. Re-cap the functions of each organelle.

Use the following link to supplement the activity: http://www.biologycorner.com/2012/10/27/5-creative-ways-to-teach-the-cell/