

## Life Systems: Animals vs. Plants

**Overview:** Plants and animals are a part of everyday life. It is important for students to understand the basic fundamental differences between the two.

### Procedures:

- Have class discussion of, “What is a Plant?” and “What is an Animal?” Review the basic differences and similarities between plants and animals using visuals, words and a Venn diagram.
- Identify cells as a similarity between plants and animals.
- Have students write in their notebooks, or have it written for them, the definition of a cell and its function.
  - The smallest living thing is a cell.
  - All living things are made up of cells.
- Show the YouTube video- [Plant and Cell Rap](https://www.youtube.com/watch?v=Yu21ShnKhHk)  
<https://www.youtube.com/watch?v=Yu21ShnKhHk>
- Using a Smartboard demonstrate how to label the parts of a plant cell and an animal cell.
- Give students a picture of a plant cell and a picture of an animal cell along with preprinted labels. Have students use the model on the Smartboard and work with a partner to label their cells.
- Provide students with another Venn diagram (labeled animal cells and plant cells); have them use post-it flags or labels to practice sorting the different parts of cells in each category.
- After practicing, have students complete the Cell Quiz.

### ASOL covered in this activity:

**8S-LS 1** The student will investigate and understand that all living things are composed of cells. Key concepts include

- b) similarities and differences between plant and animal cells;

### Materials:

- Scissors
- Glue
- Internet to show video
- Venn Diagram Worksheet Activity (Below)
- Cell Quiz (Below)

**Instructional Setting:** This activity is best taught in the general education science classroom. It can be taught in the resource room, but it is best practice to have typical peers involved.

**Community Connections and/or Peer Interactions:** Students work with peers during partner activity to complete the Venn diagram. Students could also study with peers using a blank diagram and labels.

**Functional Activity/Routine:**

-As an at home assignment, have students create a cell, plant or animal, using food or other materials. Provide families with suggestions, [Cells for Kids](http://www.kathimitchell.com/cells.html)  
<http://www.kathimitchell.com/cells.html>

**Strategies to collect evidence:**

-Cell Quiz

-Have students to create project of cells using food or other materials. Take photographs of steps and the students labeling.

-Using a large model of a plant and animal cell have students label the parts of each cell, the labels can be programmed into a voice output device or added to a choice board for the students to make their selections. A data sheet of student choices can be included.

**Specific options for differentiating this activity:**

-Instead of having students complete Venn diagram, provide students with multiple examples of diagrams for plant and animal cells and have students label which is plant and which is animal.

-Provide a switch activated buttons labeled with animal/plant and have student identify the correct cell the picture would belong to.

-Have students sort pictures to demonstrate understanding of the parts of animal vs. plant cell.

-Provide a choice board with pictures labeled with the cell parts to promote participation, these pictures can then be used for placement on the Venn diagram as well.

**Resources:**

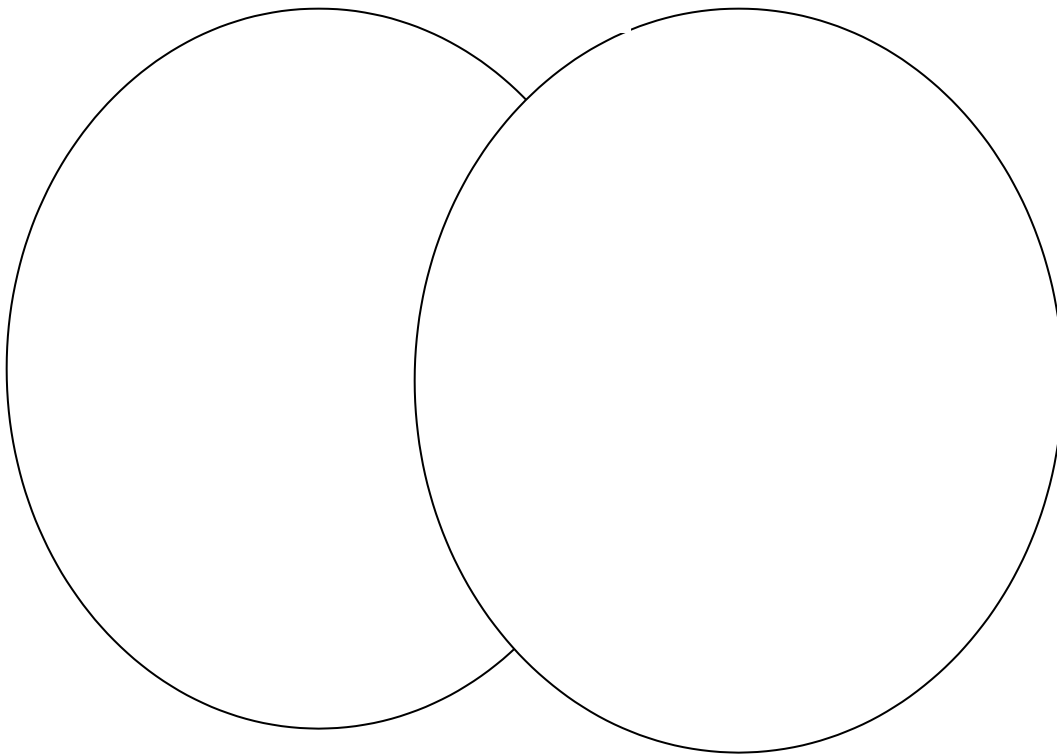
Beamon, A. [Plant and Cell Rap](https://www.youtube.com/watch?v=Yu21ShnKhHk) (September 11, 2009).  
<https://www.youtube.com/watch?v=Yu21ShnKhHk>

**Plant Vs Animal Venn Diagram**

Animal Cell

Both

Plant Cell



**\*Cut and glue the boxes of the parts of the cell into the Venn diagram above**

chloroplast

cytoplasm

Cell wall

Small Vacuoles

Nucleus

No chloroplast

ribosome

No cell wall

Large Vacuoles

(Answer Key)

Animal-

No cell wall

Small Vacuoles

No chloroplast

Plant-

chloroplast

Cell wall

Large Vacuoles

Both-

cytoplasm

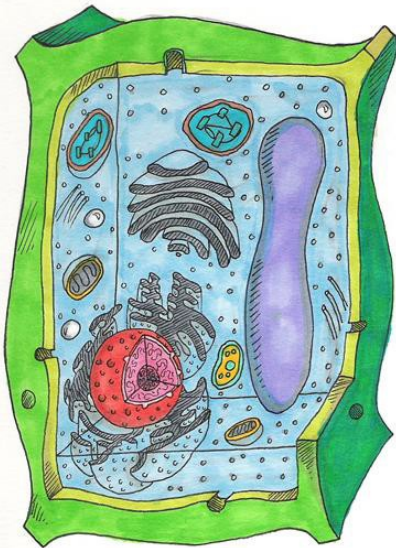
Nucleus

ribosome

## Cell Quiz

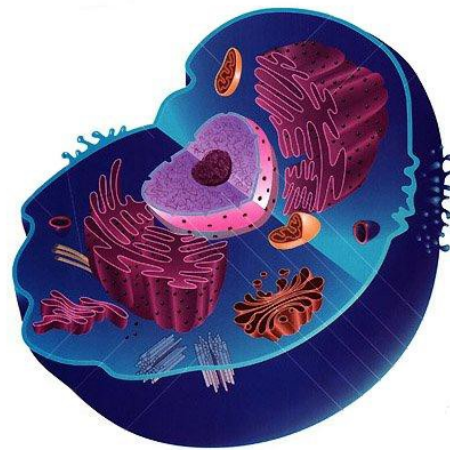
Answer the following questions.

1. What type of cell is below?



- a. plant cell
- b. animal cell

2. What type of cell is below?



- a. plant cell
- b. animal cell

3. What does a plant cell have that an animal cell does not?

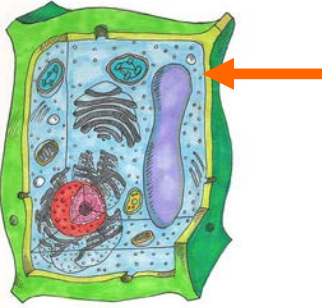
---

4. What is the job of a nucleus?

- a. to make a plant green
- b. tells the cell parts how to do their jobs
- c. helps the animal cell stay together

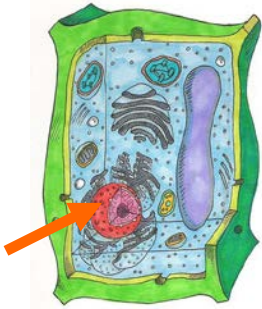
Match the following cell part with the correct label.

5.



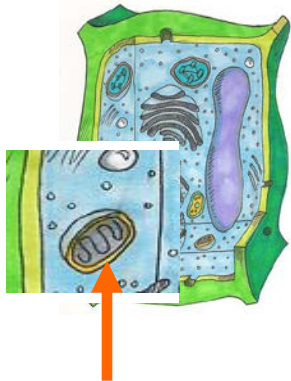
a. nucleus

6.



b. mitochondria

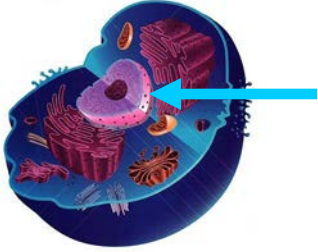
7.



c. cell wall

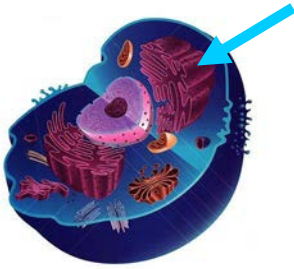
Match the following cell part with the correct label.

8.



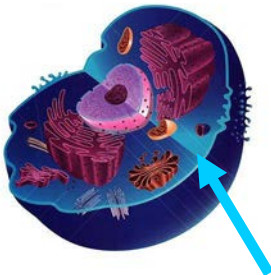
d. ribosome

9.



e. nucleus

10.



f. cytoplasm