

Creative Science Activities for Active Learners

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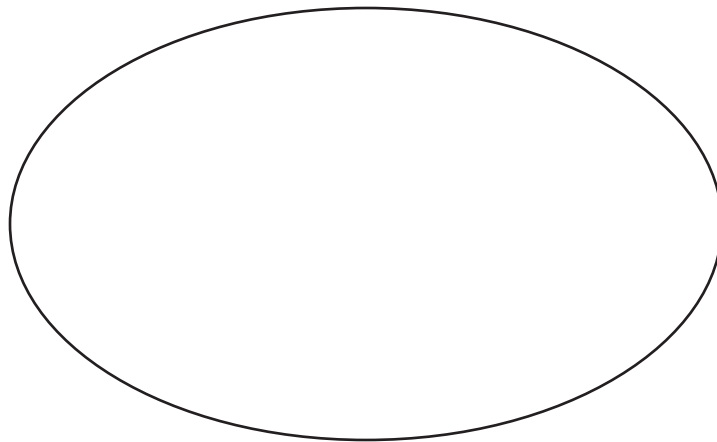
Activity 1 Cell Life

A cell is the smallest living unit in an organism. The parts of a cell are too small to be seen without the aid of a microscope.

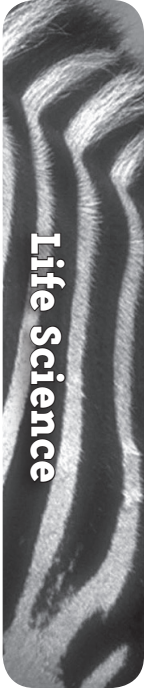
A typical cell has a membrane—a thin layer that surrounds the outside of the cell. A nucleus is located near the center of the cell. This dark, round structure controls activities of the cell.

Cytoplasm is a fluid-like material that lies between the nucleus and the cell membrane.

1. The figure below represents the outline of a typical cell. Complete the sketch by including cytoplasm (a series of dots) and a nucleus. Label the three parts on the cell drawing.



There are differences between an animal cell and a plant cell. A plant cell has chloroplasts. These are needed by plants to make food. Animal cells don't have chloroplasts. A cell wall covers the outer part of a plant cell and provides extra protection for the cell. Animal cells don't have a cell wall; they do have centrioles that regulate the reproduction of animal cells. Plant cells don't have centrioles. Vacuoles are spaces within the cytoplasm of a cell; they store or house cellular materials. Animal cells usually contain many small vacuoles; a mature plant cell has a large single vacuole.



2. Use the information at the bottom of page 6 to help you fill in the missing letters.

a. These are found within the cytoplasm of a plant cell.

___ A ___ ___ ___ E ___

b. Two structures absent in an animal cell.

___ ___ L ___ ___ ___ L ___ (two words)

___ ___ ___ O ___ ___ P ___ A ___ T ___

c. Structures missing in plant cells are:

___ ___ N ___ ___ I ___ ___ ___



Use the capital letters provided in items **a**, **b**, and **c** to complete the following sentence. You will use letters more than once.

___ L ___ ___ S ___ M ___ K ___ ___ H ___ ___ R

___ W ___ ___ F ___ ___ D.

Extra Challenge

Plant Cell A said to Animal Cell B, "I have more structures that start with the letter C than you do." Is Plant Cell A telling the truth? Search for cell structures that begin with the letter C. Then write the name of each structure found in Plant Cell A and Animal Cell B.

Plant Cell A

- 1. _____
- 2. _____
- 3. _____
- 4. _____

Animal Cell B

- 1. _____
- 2. _____
- 3. _____
- 4. _____

Who was telling the truth? _____