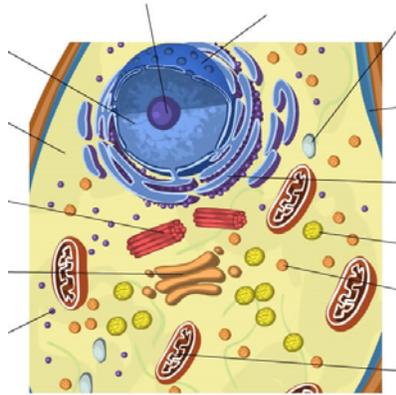


Student Exploration: Cell Structure

<p>Activity A: Animal cells</p>	<p><u>Get the Gizmo ready:</u></p> <ul style="list-style-type: none"> • Check that an Animal cell is mounted on the microscope. • Check that the Zoom is set to 2000x. 	
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Question: **Organelles** are specialized structures that perform various functions in the cell. What are the functions of the organelles in an animal cell?

1. Label: Locate each organelle in the animal cell. Label the organelles in the diagram below.



2. Match: Read about each organelle. Then match each organelle to its function/description.

___ **Cytoplasm**

___ **Lysosome**

___ **Mitochondria**

___ **Centriole**

___ **Endoplasmic reticulum**

___ **Vacuole**

___ **Cell membrane**

___ **Nucleus**

___ **Ribosome**

___ **Nuclear membrane**

___ **Golgi apparatus**

___ **Vesicle**

___ **Nucleolus**

A. Structure that organizes motion of chromosomes.

B. Stack of membranes that packages chemicals.

C. Membrane that protects the nucleus.

D. Membrane that surrounds and protects the cell.

E. Sac filled with digestive chemicals.

F. Structures that converts nutrients to energy.

G. Passageways where chemicals are made.

H. Jelly-like substance within the plasma membrane.

I. Structure that manufactures ribosomes.

J. Structure that contains DNA and directs the cell.

K. Package created by the Golgi apparatus.

L. Small structure that synthesizes proteins.

M. Sac that stores

N. water, nutrients, or waste products.

Activity B: Plant cells	<u>Get the Gizmo ready:</u> <ul style="list-style-type: none">• Select the PLANT CELL tab, and click Sample.• Set the Zoom to 2000x.	
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Question: What functions do the organelles in a plant cell perform?

1. Compare: What structures are present in an animal cell, but not in a plant cell? _____

What structures are present in a plant cell, but not in an animal cell? _____

2. Fill in: Name the organelle or organelles that perform each of the following functions.

A. _____ convert sunlight to chemical energy.

B. The _____ and the _____ help to support the plant cell and help it to maintain its shape.

C. _____ store food or pigments.

D. The _____ converts food into energy. It is found in both plant cells and animal cells.