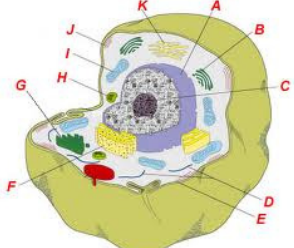
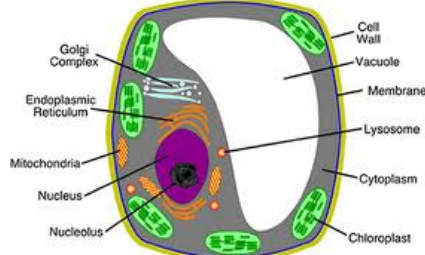

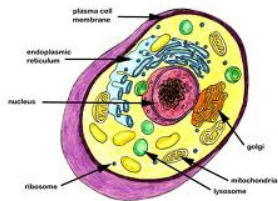


**Cells Study Guide/Practice Quiz**  
**Sixth Grade Science**

Identify if the pictures below show an animal cell or a plant cell. Explain why

Picture	Type of Cell
	<p>Type of Cell: <b>Animal Cell</b></p> <p>Why? <b>Cell is round, no cell wall, nucleus in the middle, no large vacuole</b></p>
	<p>Type of Cell: <b>Plant Cell</b></p> <p>Why? <b>Large Vacuole, contains chloroplasts, has cell wall, nucleus is to the side</b></p>
	<p>Type of Cell: <b>Plant Cell</b></p> <p>Why? <b>Large Vacuole, contains chloroplasts, has cell wall, nucleus is to the side</b></p>
	<p>Type of Cell: <b>Animal Cell</b></p> <p>Why? <b>Cell is round, no cell wall, nucleus in the middle, no large vacuole</b></p>

What is the function of each cell organelle?

Cell Organelle	Job/Function
Nucleus	<b>Cell's command center. It contains DNA. It controls all of the cell's activities.</b>
Ribosome	<b>Makes proteins for the cells. Proteins are needed for cell growth and repair.</b>
Cell membrane	<b>Holds the inner parts of the cell together. A protective barrier that surrounds the cell.</b>

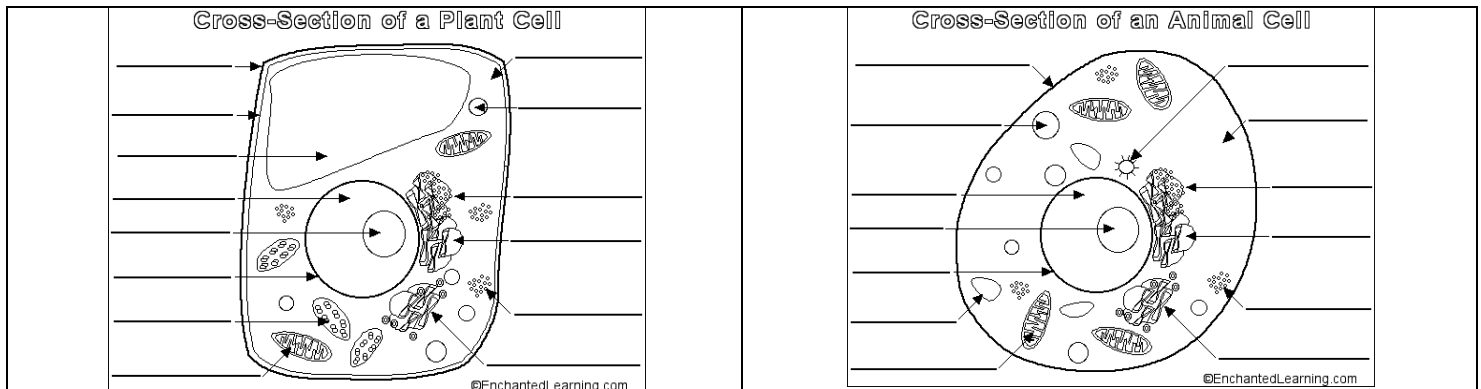
For help on the concepts covered on this page, refer to the following pages in your Cells Unit Packet: Pages 2, 17, 18, 21, 31, 32, 33, 34, 35, 44, 45, 47, 48.

Complete the table below.

Comparing a School to a Plant Cell

Cell Part	Function	School
Mitochondria	Converts the energy in food into a form a cell can use to grow, divide, and do its work.	Boiler Room, Generator, Power Station in the school
Lysosomes	This part contains digestive enzymes that destroy worn out or damaged organelles, wastes and invading particles.	Recycling Bins/Trash Cans
Cell wall	A rigid structure that surrounds the cell membrane and provides support to the plant cell.	Fence that goes around the school OR the outside of the school building

For help on the concepts covered in this section above, refer to the following pages in your Cells Unit Packet: Pages 2, 17, 18, 21, 31, 32, 33, 34, 35, 37-31, 44, 45, 47, 48. Also refer to Cells Vocabulary – Part II



State and explain how the two cells in the figure above are the same and how they are different.

Both cells contain many of the same parts and/or organelles. Both have a nucleus that controls the cell. Both have mitochondria that convert energy from food into a form of energy the cell can use. Both have a cell membrane that hold the cell together. They are also different. The plant cell has a large vacuole, while the animal cell has smaller vacuoles. The plant cell also has a cell wall, which makes the cell much more rigid. The plant cell also has chloroplasts, which makes food for the cell through photosynthesis.

For help on the concepts covered in this section above, refer to the following pages in your Cells Unit Packet: Pages 2, 17-18, 31-32, 48

How is entering a plant cell different from entering an animal cell?

The plant cell has a cell wall. The cell wall is thick and provides support for the plant cell. It is much more rigid. Entering the plant cell is harder as a result of this. Animal cells only have a cell membrane, so materials can enter more freely.

For help on the concepts covered in this section above, refer to the following pages in your Cells Unit Packet: Pages 2, 17-18, 31-32, 48

Organisms are either unicellular or multicellular. State two characteristics of each type of organism.

Unicellular Organisms	Multicellular Organisms
<p>Most reproduce asexually Organisms are made up of one cell They tend to be simple organisms If the cell is damaged, it will most likely die Organisms of a specific type look identical Cells function on their own</p>	<p>Most reproduce sexually Cannot live on their own More complex organisms If one cell is damaged, others can support the organism Cells tend to be more specialized Offspring are similar to their parents, but not the same</p>

For help on the concepts covered in this section above, refer to the following page in your Cells Unit Packet: Page 13

Which of the following correctly shows the order from simplest to most complex in multicellular organisms?

- A. cell → organ system → tissue → organ
- B. cell → tissue → organ → organ system
- C. organ system → organ → tissue → cell
- D. organ system → organ → cell → tissue

What is the relationship between tissues and organs?

- A. Organs are made from one type of tissue.
- B. Tissues are made from one type of organ.
- C. Tissues are made from different types of organs.
- D. Organs are made from different types of tissues.

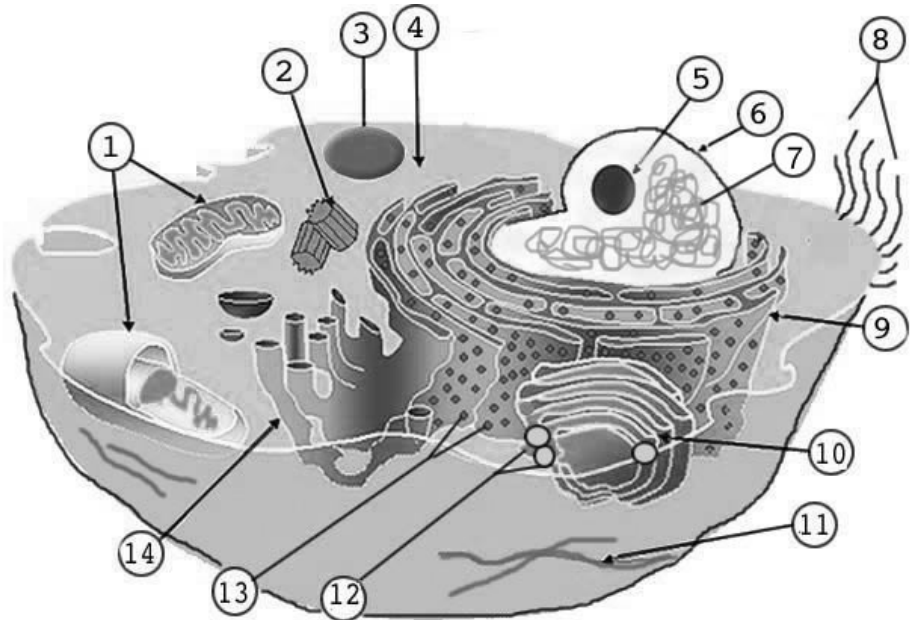
Which is an example of a group of cells with a common structure and function?

- A. stomach
- B. muscle tissue
- C. mitochondria
- D. digestive system

## Cell Labeling

DO NOT LABEL 2, 8, 12, 14

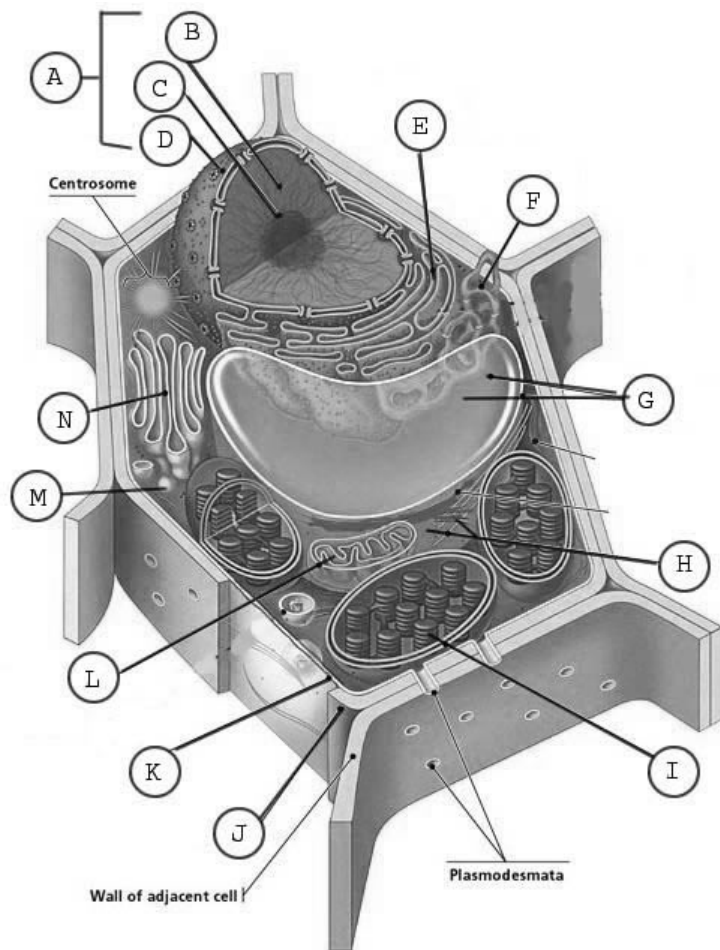
- 1. mitochondria
- 3. lysosome or vacuole
- 4. cytoplasm
- 5. nucleolus
- 6. nucleus
- 7. DNA/chromosomes
- 9. Endoplasmic reticulum
- 10. Golgi complex
- 11. Cytoskeleton (BONUS)
- 13. ribosome



DO NOT LABEL B, F, H, M

DO NOT LABEL B, F, H, M

- A. nucleus
- C. nucleolus
- D. nuclear membrane (BONUS)
- E. endoplasmic reticulum
- G. vacuole
- I. chloroplast
- J. cell wall
- K. cell membrane
- L. mitochondria
- N. golgi complex/bodies



For help on labeling the parts of the cell, refer to the documents in your science folder.