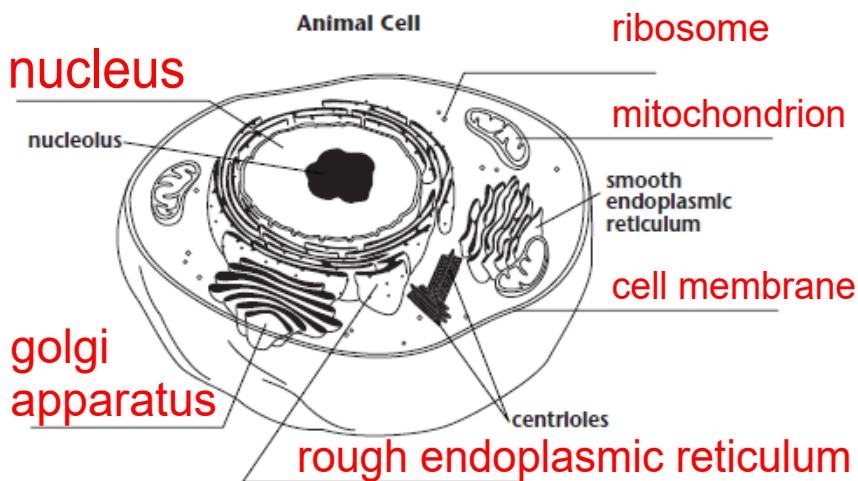


### Animal Cell

Use the words below to label the animal cell. Some structures have already been labeled for you.

cell membrane	mitochondrion	rough endoplasmic reticulum
Golgi apparatus	nucleus	ribosome



Use the diagram to answer the questions.

1. What is the area between the nucleus and the cell membrane called?

**cytoplasm**

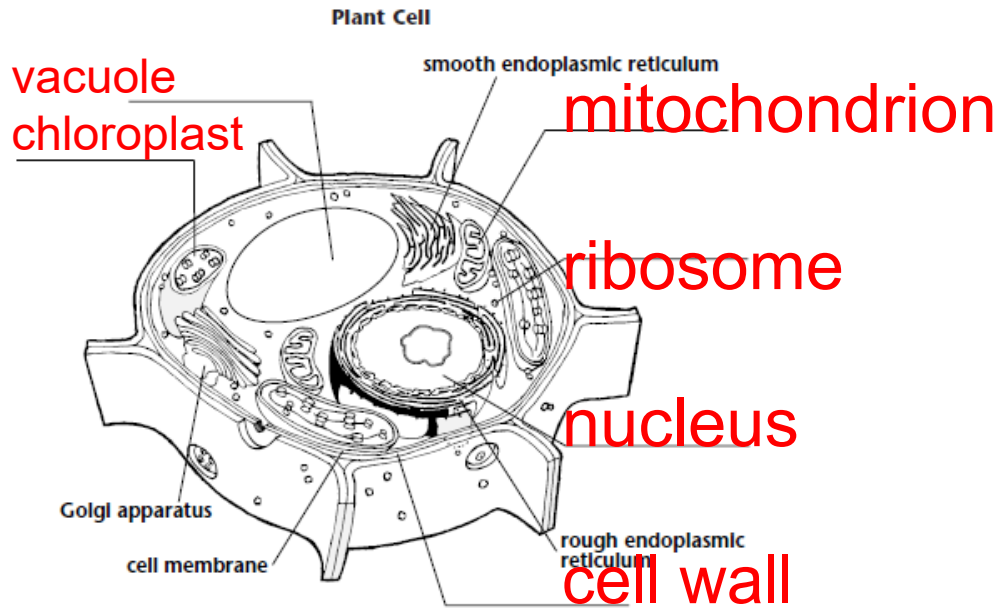
2. What cell structures are found on the surface of rough endoplasmic reticulum but not on smooth endoplasmic reticulum?

**ribosomes**

### Plant Cell

Use the words below to label the plant cell. Some structures have already been labeled for you.

cell wall	mitochondrion	ribosome
chloroplast	nucleus	vacuole



Use the diagram to answer the questions.

1. Which structure is found in a plant cell but not in an animal cell? Circle the correct answer.

chloroplast cell membrane ribosome

2. What is the main function of vacuoles?

to hold water and wastes

# Cellular Organelles Review Answers

- 1. What structures do plant cells have that animal cells do not?**  
Cell wall, chloroplasts larger vacuole
- 2. What is the nucleolus?**  
Inside the nucleus where the assembly of ribosomes begins
- 3. Why is DNA important?**  
DNA is important because it contains the instructions for making proteins and other important molecules in the cell
- 4. If the nucleus controls most cell processes in eukaryotes, how can prokaryotes live without a nucleus?**  
Prokaryotes live without a nucleus because they still contain the genetic material except it is not contained in a structure.
- 5. What are ribosomes composed of?**  
RNA and protein
- 6. Where are ribosomes produced?**  
Ribosomes are produced in the nucleolus

**7. What do ribosomes produce?**

Ribosomes produce proteins

**8. What happens to these proteins after they are produced by ribosomes?**

The proteins after they are produced by the ribosomes are modified, sorted and packaged for storage within the cell or secretion outside the cell.

**9. What is the purpose of the endoplasmic reticulum?**

To transport materials throughout the cell

**10. What is the function of the smooth endoplasmic reticulum?**

The smooth endoplasmic reticulum contains enzymes that perform specialized tasks

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**11. How do the rough and smooth endoplasmic reticulum differ?**

The rough endoplasmic reticulum has ribosomes attached to it whereas the smooth endoplasmic reticulum does not.

**12. Describe the two major functions of lysosomes.**

One function is the digestion of lipids, carbohydrates and proteins into smaller molecules that can be used by the cell. Another function is breaking down old organelles that have lost their function.

**13. How is the function of a vacuole in a plant cell different from that in a unicellular organism?**

In a plant cell there is one single large vacuole that is filled with liquid. In unicellular organisms the vacuole can contract and pump excess water out of the cell.

**14. How is a mitochondrion like a powerplant?**

The mitochondrion converts chemical energy into usable energy for the cell just like a powerplant converts the energy into a useable form for us in the factory.

**15. What is the purpose of the cell's cytoskeleton?**

It is a supporting structure that also helps the cell move.

## Attachments

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