



Vocabulary List One for *Inside a Cell*

eukaryote – (n) a cell with a nucleus; examples include more complex multi-cellular organisms, like animals and plants and unicellular organisms, like protists
prokaryote – (n) a cell without a nucleus; examples: bacteria and blue-green algae
cytoplasm – (n) everything inside the cell membrane, except the nucleus
cell membrane – (n) thin covering of a cell that regulates what enters and leaves a cell; plant cells have one too, but the cell wall is the outermost layer
semipermeable – (adj.) partially able to move or pass substances
cytoskeleton – (n) cellular organelle composed of microfilaments, microtubules, and intermediate filaments that provide structure and shape for a cell and help the cell move
endoplasmic reticulum – (n) site of protein synthesis in a cell; two types - rough (has ribosomes attached) and smooth
ribosomes – (n) structures in cell found floating in the cytoplasm or attached to endoplasmic reticulum; site of protein synthesis
Golgi apparatus – (n) part of a cell where substances are modified, packaged and distributed
vesicle – (n) sac that carries newly synthesized proteins from Golgi apparatus to various parts of the cell

Choose the best word from the vocabulary box to finish the sentences below.

- _____ are the site of protein synthesis.
- When DNA is not surrounded by a nuclear membrane, the cell is a _____.
- The _____ provides shape, support and structure for the cell.
- Most cellular membranes are _____, allowing only certain substances in while keeping others out.
- After being modified and packaged in the _____, a protein will be placed in a _____ to be transported to other parts of the cell.
- All the organelles, except the nucleus, do their work in the gel-like area known as the _____.
- Protists, like the paramecium, can also be called _____ because they have a nucleus.
- Lipids and other large molecules must pass through the _____ before they leave the cell.
- The smooth _____ does not contain any ribosomes on its surface.





Word Zone

Vocabulary List Two for *Inside a Cell*

synthesis – (n) combining parts to form a whole

lysosome – (n) structure in a cell containing digestive enzymes; removes debris, unwanted particles and useless organelles

enzymes – (n) complex proteins that initiate biochemical reactions

mitochondrion – (n) (pl. mitochondria) cell structure that provides energy for the cell; aids in cellular respiration by breaking down oxygen

cristae – (n) folds in the inner membrane of the mitochondrion

self-replicate – (v) ability to reproduce without the aid of outside forces

centrioles – (n) pair of organelles located near the nucleus that make spindles used in cell division (spindles act like cables to pull the cell apart)

nucleus – (n) control center for a cell; contains genetic information which are the instructions a cell needs to function

DNA – (n) (deoxyribonucleic acid) hereditary instructions for a cell

nucleolus – (n) located inside the nucleus; helps make ribosomes

mitosis – (n) process of cell division; occurs in a series of steps: interphase, prophase, metaphase, anaphase and telophase

Choose the best word from the vocabulary box to finish the sentences below.

1. The _____ inside the cell's control center are the instructions for a cell.
2. During _____, the cell divides forming two identical daughter cells.
3. Without the _____, the cell would not be able to effectively remove worn out organelles.
4. _____ in the lysosome serve as catalysts for the breakdown of debris in the cell.
5. The _____ inside a(n) _____ increase its surface area, thereby assisting in the break down of oxygen during cellular respiration.
6. Ribosomes made in _____ pass through the nuclear envelope before entering the cytoplasm.
7. In eukaryotes, the cell's genetic information is found in the _____.
8. Without the _____, the cell would not have spindles during cell division.
9. During protein _____, a whole protein molecule is made from various amino acids.
10. Mitochondria can _____ because they have their own DNA.





Quiz Time:

**Video Quiz Questions
Inside a Cell**

Directions: Write the letter of the best answer in the space provided, or write true or false for each statement.

1. _____ What is the name for cells with a nucleus and organelles surrounded by a membrane?
 - a. Prokaryotes
 - b. Eurekas
 - c. Eukaryotes
 - d. Protectors

2. _____ What is one characteristic of the cell membrane?
 - a. Synthesizes water
 - b. Semi-permeable
 - c. Breaks down substances to produce energy
 - d. Removes organelles

3. _____ What substance is the cytoskeleton made of?
 - a. Fat molecules
 - b. Cytoplasm
 - c. Protoplasm
 - d. Proteins

4. _____ True or False: There are four types of endoplasmic reticula.

5. _____ What is one function of the smooth endoplasmic reticulum?
 - a. Synthesize lipids
 - b. Create molecular bonds with complex carbohydrates
 - c. Compress water molecules
 - d. Carry proteins into the cytoskeleton

6. _____ The Golgi apparatus is responsible for _____.
 - a. bringing together cytoplasm and protein molecules.
 - b. removing worn out organelles.
 - c. collecting, modifying and packaging substances.
 - d. transporting the nucleus to various locations in the cell.



Video Quiz Questions
Inside a Cell - continued

7. _____ Which organelle transports substances from the Golgi apparatus to various sites within the cell?
- a. Vacuole
 - b. Cytoskeleton
 - c. Nucleus
 - d. Vesicle
8. _____ Which organelle uses digestive enzymes to clean up the cell?
- a. Mitochondrion
 - b. Nucleus
 - c. Ribosome
 - d. Lysosome
9. _____ Which organelle breaks down sugars and fatty acids for energy?
- a. Mitochondrion
 - b. Nucleus
 - c. Ribosome
 - d. Lysosome
10. _____ Without the cristae, the _____
- a. mitochondrion would have more surface area.
 - b. lysosome would digest the mitochondrion.
 - c. mitochondrion would have less surface area.
 - d. lysosome would be larger.
11. _____ True or False: Centrioles migrate to poles of the cell to assist in cell division.
12. _____ The nucleus _____
- a. directs all the organelles.
 - b. keeps track of the DNA.
 - c. controls the nucleolus.
 - d. all of the above