

Vacuole

www.PrintableFlashCards.net

STORAGE BIN FOR
EVERYTHING FROM
WATER AND FOOD TO
WASTE

www.PrintableFlashCards.net

Vesicles

Small sacs that
transport materials

cell membrane

Outside thin layer of a cell
that controls what goes in
and out. PLANTS AND
ANIMALS

cytoplasm

jellylike fluid that holds
organelles in place.
PLANTS AND
ANIMALS

chloroplast

Oval shaped organelle in
a plant cell that uses the
sun's energy to make
glucose. PLANTS ONLY

organelle

a tiny structure that carries out a specific function for a cell

ribosome

Builds proteins for the cell. Looks like small circles. PLANTS AND ANIMALS

nucleus

control center of the cell -- contains hereditary material PLANTS AND ANIMALS

cell wall

Outside rigid (hard) layer of a plant cell to provide protection and support. PLANTS ONLY

endoplasmic reticulum

"highway" in a cell to transport materials. Looks like a maze. PLANTS AND ANIMALS

golgi body

packages and ships materials throughout the cell. Looks like a stack of pancakes.
PLANTS AND ANIMALS

mitochondria

Powerhouse of the cell. Creates energy for the cell (ATP) during respiration. Looks like bean with a maze inside. PLANTS AND ANIMALS

lysosome

organelle that breaks down waste for the cell. ANIMALS ONLY

Name: _____

Section 1.3

KEY

Please read the textbook pages and fill in the missing information.

1. Cells are classified into two types of cells, prokaryotic and eukaryotic cells.
2. The main difference between a prokaryotic cell and a eukaryotic cell is that a prokaryotic cell does not have a nucleus.
3. Prokaryotic cells are simpler than eukaryotic cells. They also have fewer internal structures.
4. A prokaryotic cell's DNA is located in a region called the nucleoid.
5. Eukaryotic cells are about 10 times as large as prokaryotic cells, and they are more complex.
6. Eukaryotic cell is a type of cell whose nucleus and other internal parts are surrounded by membrane.
7. Example of a prokaryotic cell Archaea. Example of a eukaryotic cell liver, skin etc.
8. ~~Bacteria have a cell wall, cell membrane that surround its jelly-like cytoplasm.~~
9. Genetic material and protein-making structures called ribosomes float within the cytoplasm.
10. Archaea are similar to bacteria in that they lack a nucleus and have a cell wall. However, molecules found in archaea are more like the molecules found in eukaryotic cells than those of prokaryotic cells.
11. Archaea can survive in extreme environments.
12. Plant cells have two more organelles than animal cells, cell wall and chloroplasts.
13. Mitochondria are bean like structures that power the cell. They are responsible for the process of cellular respiration.
14. Vesicles transport material around the cell. In regards to school, they are similar to hallways.
15. Vacuoles are balloon like spaces within cytoplasm that store wastes, food, and others. Plant cells have large vacuoles, while animal cells have smaller and more numerous throughout the cell.
16. cell wall provide a tough rigid structure for plant cells.
17. cell membrane protect the contents of cells. ~~In a classroom, they are similar to either a door or wall.~~
18. nucleus is the brain of the cell. It houses the genetic material, which is controls a cell's growth, reproduction, and other like-sustaining activities.
19. Chlorophyll captures the energy in chloroplasts. This energy is needed for the process of photosynthesis to occur.
20. Photosynthesis is a chemical reaction that uses the energy of sunlight to change carbon dioxide and water into sugar and oxygen.
21. The equation for photosynthesis is as follows
~~$$6\text{CO}_2 + 6\text{H}_2\text{O} + \text{light energy} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$$~~
22. During photosynthesis, sugar (energy) is produced, while oxygen is expelled as a waste product.
23. Cellular respiration is a chemical reaction in which sugar and oxygen in cells are changed into carbon dioxide and water. As a result of this process, energy is released, which allows an organism to carry out life processes. carbon dioxide and water are waste by-products.