Life Science - Cell Organelle Research **Binder Page # _____**

Name _____ Date: Period:

Please use the following link to the Biology4Kids website to investigate the answers to the following fill-in the blanks. http://www.biology4kids.com/files/cell_main.html

Look on the right hand side of the webpage for a list of different organelles (or cell parts) when doing your research.

Cell Membrane

1. The cell membrane is like a _____ _____ with holes in it. These holes allow some things to move _____ and _____ of the cell.

2. The cell membrane is mainly made up of _____ and _____.

Cell Wall

1. Cell Walls are made of _____ and only found in _____ cells.

2. Cell walls help a plant keep its _____. They also protect the cell membrane from tearing.

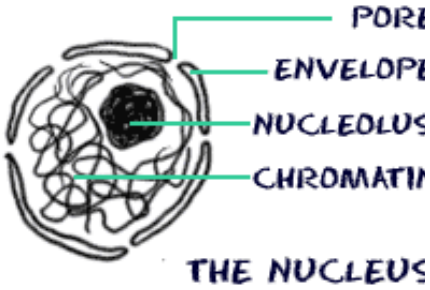
Nucleus

1. The _____ is the brain of the cell. It helps control _____, _____ , and _____.

2. A _____ cell has a nucleus and a _____ cell has NO nucleus.

3. The nuclear envelope, or as we know it the _____ _____, surrounds the nucleus and allows RNA and proteins to pass through.

4. Chromatin is made of _____, _____, and _____



4. When the cell is going to divide, the chromatin becomes very compact forming _____.

Centrioles

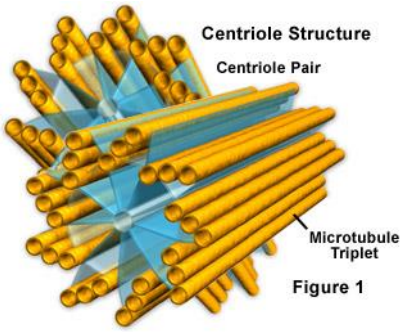
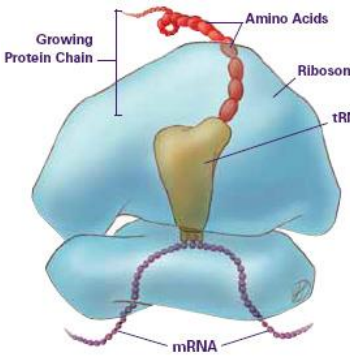


Figure 1

1. A centriole is a small set of _____ arranged in a specific way.
2. Centrioles are involved in the process of _____ and the process of _____.

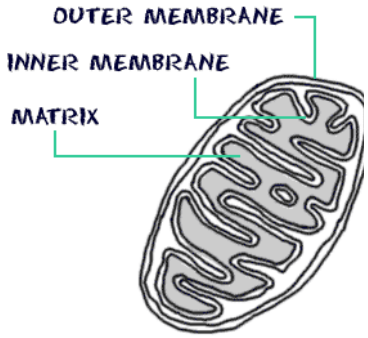


Ribosomes

1. Cells need to make _____, and ribosomes are the _____ _____ of the cell.
2. Ribosomes are found floating in the _____ or on the _____ _____ **(type?)**

Mitochondria

1. The _____ are the _____ of the cell.
2. They are the organelles that take in _____, breaks them down, and create _____ in the cell (in the form ATP).
3. You might find cells with several _____ mitochondria.
4. Mitochondria have _____ phospholipid bilayers (or membranes).



Chloroplasts

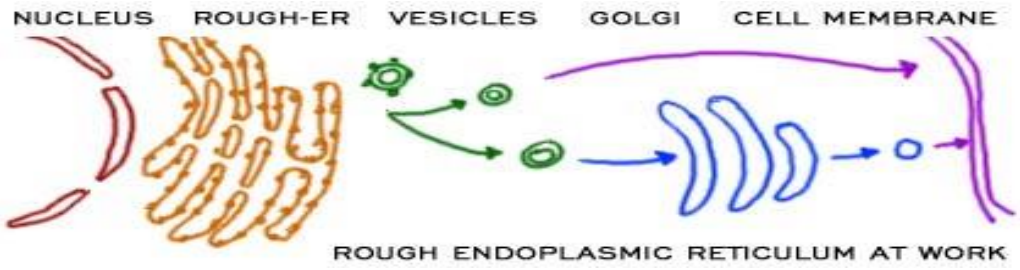
1. _____ are the food producers found in _____ cells.
2. Every green plant is working to convert the sun's _____ into _____ in a process called _____.
3. _____ work to break down the sugars that the chloroplast makes to make _____ (aka – energy).

Endoplasmic Reticulum

1. There are two types of _____ _____ (or ER), one is _____ (which has ribosomes) and the other is _____.

2. The type **with ribosomes** is very important in the synthesis and packaging of _____.

3. After being made, proteins can either be brought to the _____ to be changed or to the _____ to be released from the cell.



4. The type **without** ribosomes acts as a storage organelle. They also make _____ that can be used inside and outside the cell. Lastly, it can breakdown _____ and _____ that could damage the cell. (**In text book on page 70**)

Golgi Complex

1. The Golgi complex is a _____ organelle like the ER. They are also both considered membrane bound organelles, meaning they are made of phospholipid bilayers.

2. The Golgi complex gathers _____ molecules and combines them to make molecules that are more _____. A _____ is an example of a molecule that may be changed in the Golgi complex.

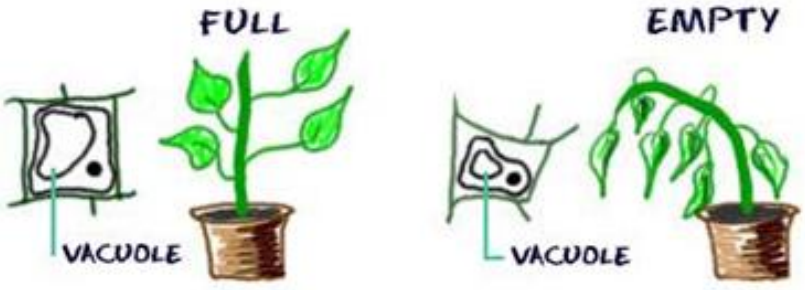
3. These big molecules are packaged and sent around the cell in _____.

4. The Golgi complex is a series of membranes in shapes like _____.

Vacuoles

1. Vacuoles are _____ _____ found in a cell.

2. Vacuoles are much larger in _____ cells than in _____ cells.



3. Vacuoles store _____, _____, and _____

4. Vacuoles can even store _____ to protect the cell from contamination.

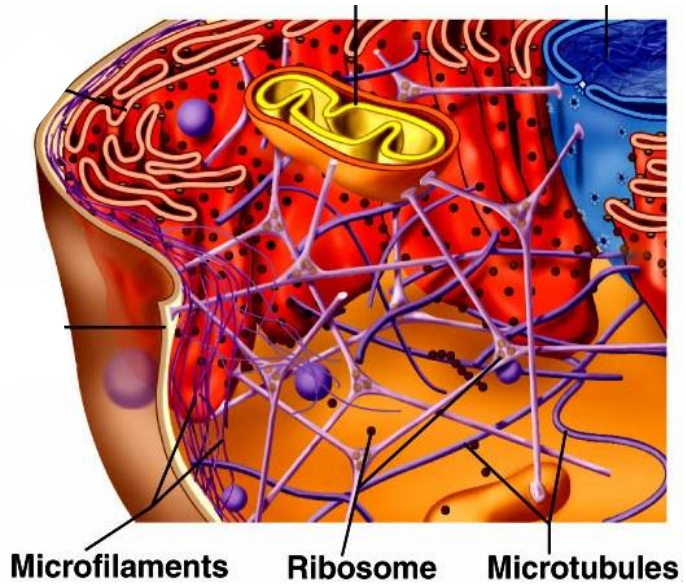
5. When a plant droops, the _____ are shrinking, **NOT** the cytoplasm.

Microtubules & Microfilaments

1. Together microtubules and microfilaments make up the _____.

2. Microtubules are _____, _____ spirals of protein, while microfilaments are _____ strands of protein.

3. Microtubules are involved in moving and separating the _____ during the division of the cell.



Lysosomes

1. Lysosomes are filled with _____ and their purpose is to digest _____ or the _____ (and cell parts) when they die.

2. A Lysosome is basically a specialized _____ and is formed by the _____ _____.