NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The World of the Cell- Activity

Navigate through the animal cell and find the following organelles; for each organelle, please listen to the narration to help you answer the following questions:

**Animal Cell Tour**

Outside the Cell:

*Cell Membrane:*

What are you looking at?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is it similar to in humans:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is it made of: \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What it is for?\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are the red things?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inside the Cell:

*Inside the Cell Intro:*

Jellylike substance: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Ribosomes*:

Tiny globs that make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the cell. Proteins break down into amino acids. Ribosomes are coded to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Endoplasmic Reticulum*:

Where\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ go to make protein.

Endoplasmic Reticulum sends \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to where it needs to be in the cell.

*Golgi body*:

Where proteins go to get \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and sent elsewhere.

*Mitochondria:*

The bean shaped organelle. They are the “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” of the cell.

Take in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to make ATP, this is the energy for the cell.

Releases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_which is a waste product from the reaction.

*Centrioles:*

The are part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell. Cytoskeleton is a network of sticks called microtubules.

They give cells \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and also help things move around.

*Lysosomes:*

Little bags full of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that breaks down things coming it to the cell.

They break down old \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and also kill bacteria and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that might enter.

They are like the garbage truck, recycling and stomach of the cell.

*Vacuoles:*

Store \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and carry them around the cells.

They transport \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ out of the cell.

*Nucleus:*

Control center of the cell. It has a genetic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that controls the cell.

It has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ envelope that protects the nucleus.

It also has red \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that help things enter/exit the nucleus.

*Inside the Nucleus:*

Nucleus is the home to the cell’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 When unspooled and useful it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

When it is ready to divide it condenses into strands of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*Nucleolus:*

Makes copies of DNA to make RNA, and that RNA is used by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Plant Cell Tour**

Plant cells are arranged in a very \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ structure.

Plant cells have an extra organelle called a \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ , that helps give the plant structure.

*Chloroplasts:*

Use energy from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to turn carbon dioxide and water into sugar.

This process is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*Vacuole:*

Animal cells have many small vacuoles that hold food. Plant cells have one large \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that holds water.

This vacuole takes up a large volume of the cell and keeps it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and upright when it is well watered.

*BONUS:*

Use the iPad or your phone to help you identify the major differences between animal and plant cells.

|  |  |
| --- | --- |
| ANIMAL CELL ONLY | PLANT CELL ONLY |
|  |  |

List any organelles that weren’t described in the apps that you have used and list their function.

|  |  |  |
| --- | --- | --- |
| Organelle Name | Function | Plant/Animal or Both? |
|  |  |  |
|  |  |  |
|  |  |  |