

Name: _____

Pd: _____

Date: _____

Station 1 and 2 - Cells Alive

Cells Alive Webquest URL: www.cellsalive.com

Animal Cell Model - For this model, you will need to click on the various parts of the cell to go to a screen that tells you about the parts. Answers to the following questions are found there.

1. What do mitochondria do?

Sketch each of the following.

2. How big are mitochondria?

3. What does the Golgi Apparatus do?

4. What is the difference between smooth and rough ER?

5. Where is the nucleolus found?

6. What does the nucleolus do?

7. What does the cytoskeleton do?

8. Cytosol goes by what other name?

9. What is the function of the cytosol?

10. What is the function of the lysosome?

Mitochondria

Lysosome

Golgi Apparatus

Rough ER

Plant Cell Model - (you will need to return to the "Cell Biology" link to access this page, or hit your back button)

1. What other type of cell has a cell wall?

2. What makes the plant cells green?

3. In plant cells, what does the vacuole do?

Sketch the following

Chloroplast
Vacuole

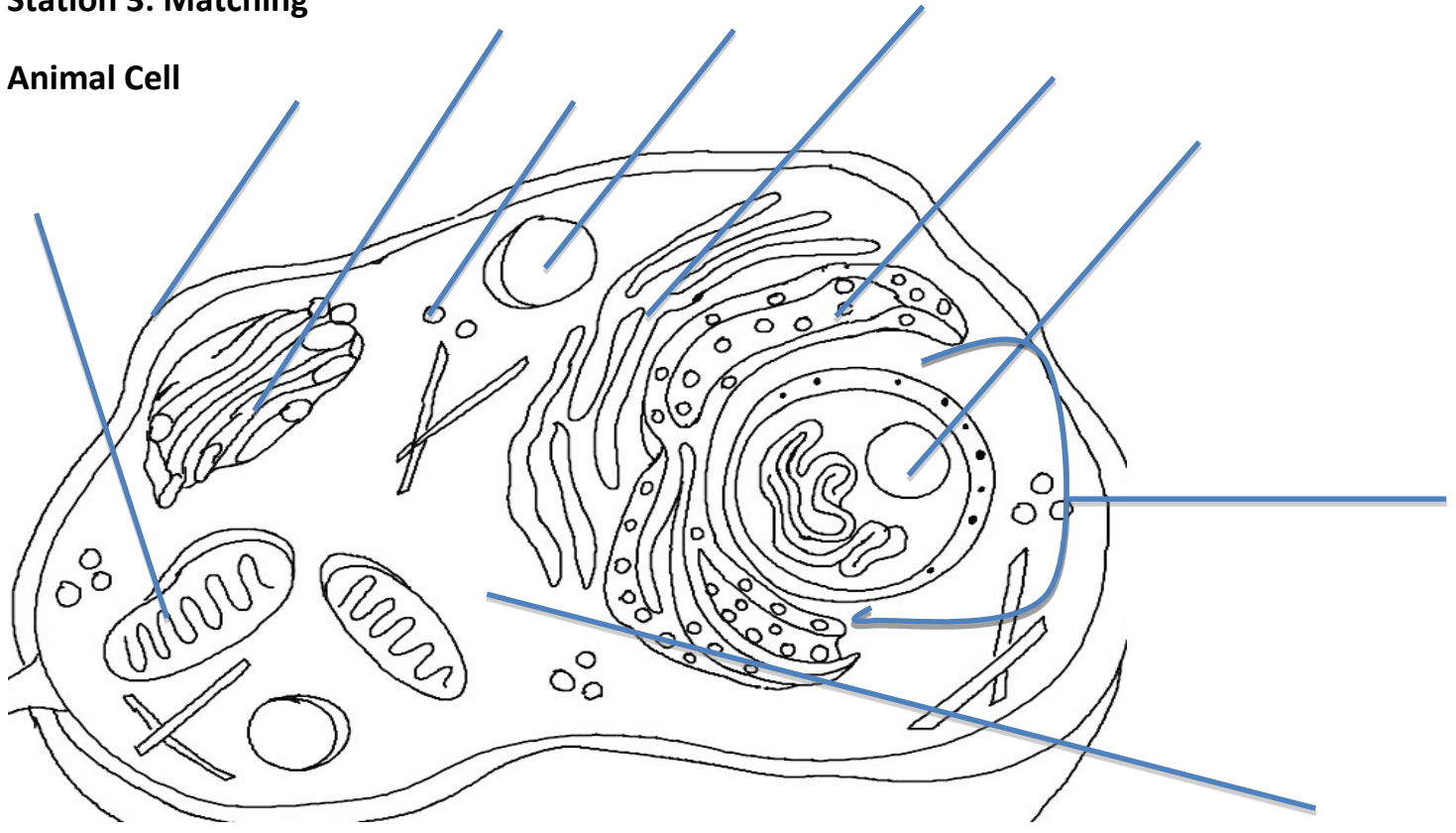
Overview

For the chart below, place a check in the box if the cell has that component.

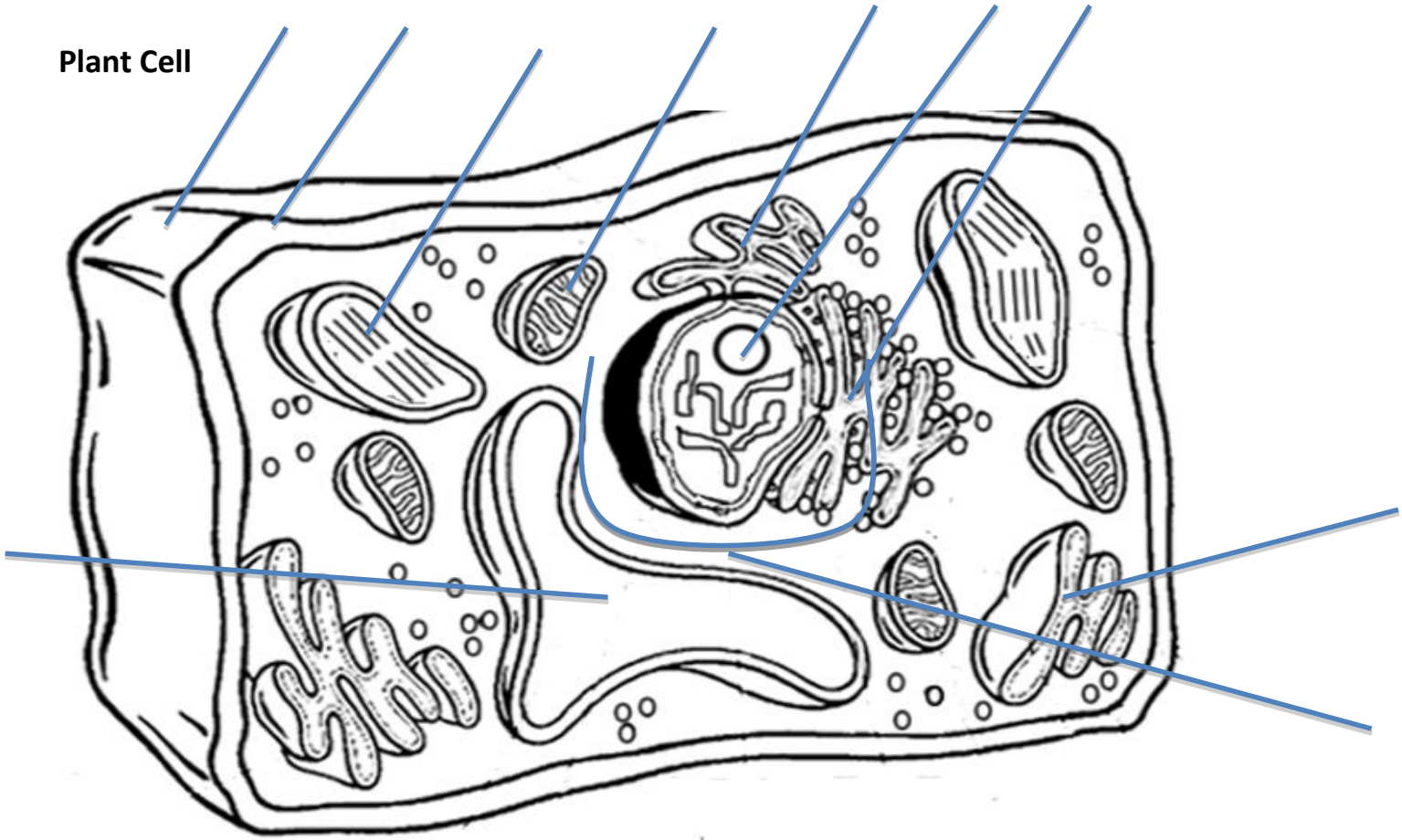
	Plant	Animal
Chloroplast		
Vacuole		
Ribosome		
Mitochondria		
DNA		
Endoplasmic Reticulum		
Cell Wall		
Golgi Apparatus		

Station 3: Matching

Animal Cell



Plant Cell



Station 4: Reading Comprehension

- 1. List 4 things that LIVING THINGS do.**
- 2. How do cells get energy**
- 3. What happens during cellular respiration?**
- 4. How is energy stored?**
- 5. Where is DNA stored and what is controlled by the DNA?**
- 6. What is diffusion?**
- 7. What is osmosis?**
- 8. What is a plant cells extra layer called?**
- 9. What do the following organelles do?**
 - a. Cytoplasm**
 - b. Ribosomes**
 - c. Golgi Apparatus**
 - d. Vacuoles**
 - e. Mitochondria**
 - f. ER**
 - g. Chloroplasts**

Station 5: Organelle Matching part to function and Cell Riddles

Part 1: teacher signature _____

Part 2: Riddles

1.

5.

2.

6.

3.

7.

4.

8.

Station 6: Text Messaging Conversation:



Station 7: I Pad Minis – Cell Explorer

Golgi Apparatus: What would happen if the Golgi Bodies in the cell were destroyed?

Cell Membrane (Plasma Membrane) Why is the plasma membrane critical to the survival of a cell? _____

Lysosomes: As a pilot, you should avoid lysosomes. Why?

Rough Endoplasmic Reticulum: What would happen if the rough ER in the cell were destroyed by Dr. Vial's evil scheme?

Smooth Endoplasmic Reticulum: What would happen if the smooth ER in the cell were destroyed? _____

Mitochondrion: What do mitochondria make? _____

What is ATP? _____

To make ATP, mitochondria need to take in _____

Ribosomes: What would happen if the ribosomes in the cell were destroyed by Dr. Vial's evil scheme? _____

Nucleus: Why is the nucleus important? _____

What is the main function of DNA? _____

Nucleolus: What would happen if the nucleolus in the cell were destroyed by Dr. Vial's evil scheme? _____

Why is each part of the cell important? _____

What type of cell are you exploring? How do you know? _____

Station 8: Cells Crossword

A crossword puzzle grid with 23 numbered starting points for words. The grid consists of white squares for letters and empty spaces for non-letter positions. The numbered squares are:

- 1: Top right vertical word (6 letters)
- 2: Middle right vertical word (6 letters)
- 3: Middle vertical word (5 letters)
- 4: Middle horizontal word (5 letters)
- 5: Middle horizontal word (8 letters)
- 6: Middle right vertical word (5 letters)
- 7: Middle right vertical word (5 letters)
- 8: Middle left vertical word (6 letters)
- 9: Middle left vertical word (6 letters)
- 10: Middle horizontal word (7 letters)
- 11: Far right vertical word (5 letters)
- 12: Middle vertical word (5 letters)
- 13: Middle horizontal word (6 letters)
- 14: Middle vertical word (5 letters)
- 15: Middle horizontal word (10 letters)
- 16: Middle horizontal word (8 letters)
- 17: Middle horizontal word (6 letters)
- 18: Middle horizontal word (5 letters)
- 19: Middle horizontal word (10 letters)
- 20: Middle horizontal word (7 letters)
- 21: Middle horizontal word (7 letters)
- 22: Middle horizontal word (4 letters)
- 23: Middle horizontal word (5 letters)

ACROSS

- 4 a protist that lives in a colony
- 5 an organelle found in animal like protists that is used for digesting food
- 10 The thick jelly like substance that fills the interior of the cell.
- 13 the tough outer membrane of some protists like a euglena and paramecium that help the cell keep its shape
- 15 the transportation system of the cell
- 17 a protist that is both animal like and plant like
- 18 An organelle found only in plant cells that is used for protection, support, and to keep the cell shape rigid.
- 19 the organelle that provides energy for the cell
- 20 an organelle found in animal cells used for digesting food
- 21 a protist that can make its own food
- 22 another name for plant like protists
- 23 the organelle that controls cell function and reproduction

DOWN

- 1 a protist that must hunt or gather its food
- 2 another name for animal like protists
- 3 an organelle found in plants and plant like protists that convert sunlight into glucose
- 6 the organelle responsible for making ribosomes
- 7 an organelle that makes proteins
- 8 another name for fungus like protists
- 9 The organelle responsible for determining what can come in and out of the cell. It also provides protection and support of the cell
- 11 storage for water, food, wastes, and enzymes
- 12 The organelle that sends and receives proteins
- 14 a vacuole only found in protists that removes excess water from the cell
- 16 all cells that have a nucleus
- 18 the smallest living thing

When you finish early at a station, complete the following: Write an analogy for each cell organelle. This means give me an example of something that would also serve the same function as the cell part.

Examples:

Mitochondria – provides energy for the cell

Analogy and explain why – Energy bar or energy drink provides energy for a person

Golgi Body – receives and sends proteins to other parts of the cell

Analogy and explain why: A post office sends and receives mail in a town

Nucleus Function:

Analogy and explain why:

Nucleolus Function:

Analogy and explain why:

Endoplasmic Reticulum function:

Analogy and explain why:

Lysosome function:

Analogy and explain why:

Chloroplast function:

Analogy and explain why:

Cell Wall function:

Analogy and explain why:

Cell Membrane function:

Analogy and explain why:

Ribosome function:

Analogy and explain why: