

Name: _____ Date: _____ Period: _____

Cell Analogy Writing Assignment

Instructions: Carefully read all of the instructions on this handout in order to properly complete a cell analogy.

Once upon a time, in the land of Pasteurtoff, there lived a queen in a kingdom known far and wide for its charming wooden toys. All of the subjects in the kingdom took part in the creation of these wooden toys. The kingdom was designed to efficiently create the toys and export them to other kingdoms. Any member of the kingdom could take part in the production process.

A large wall with many gates surrounded the kingdom to protect it from intruders. Special subjects within the kingdom operated the gates to allow food and raw materials necessary for building the toys into the kingdom. When food and raw materials entered the kingdom they were stored in warehouses until they were needed. Some of the subjects were responsible for growing sugar cane within the kingdom. The sugar cane was the main source of energy for the kingdom. Once the sugar cane was harvested, it was brought to special furnaces where it was burned. The heat generated from the burning sugar cane provided energy for the kingdom.

The queen kept the instructions for making the toys in her castle. The queen never left the castle, so she relied upon some of her knights to bring copies of the instructions for building the toys out to subjects in the kingdom.

The toys were made in small shops throughout the kingdom. The workers in the toy shops carefully followed the directions and completed the assembly of the toys. Once the toys were assembled, they were transported in tunnels to different centers designed for packaging. When the toys arrived at the packaging centers, the workers sorted and boxed them into special packages so they could be easily exported out of the kingdom. If any toys were defective, they would be sent to a recycling center where they would be broken down for parts or destroyed.

The toys from Pasteurtoff were in such demand that the queen and her kingdom continued productions for many years, living balanced and satisfied lives throughout her reign.

Part 1 Instructions: Create the table below. In each blank match the underlined words with the parts of an eukaryotic cell.

Nucleus		Lysosomes	
Cell Membrane		Golgi Apparatus	
Mitochondria		Vacuoles	
Endoplasmic Reticulum		Ribosomes	

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Instructions for creating your analogy

Part 2 Instructions: You will follow the step-by-step process described below to complete your own cell analogy like the one that you read.

Step 1

Choose a topic for your cell analogy. Below each topic heading are possible analogies for the topic. You can use them or come up with your own. ~~The fourth column is a space in case you want to make your own analogy topic.~~

<u>Factory</u>	<u>City of Houston</u>	<u>School</u>
<ul style="list-style-type: none">- owner- machines- assembly workers- breaker box- custodians- gates- shipping dock- managers- trash can- supply room	<ul style="list-style-type: none">- beltway- city hall- reliant energy- garbage man- dumpster- metro bus- restaurants- police- jail- library	<ul style="list-style-type: none">- principal- school doors- students- cheerleaders- janitors- recycling team- trash can- teacher- officer- supply room

Step 2

Write your topic, and then list the parts of the topic in the chart below.

Topic:	
Nucleus	
Cell Membrane	
Mitochondria	
Endoplasmic Reticulum	
Lysosomes	
Golgi Apparatus	
Vacuoles	
Ribosomes	

Step 3

Create either an analogy story or a drawing with descriptions relating the image to a specific organelle. Use the product guide on the next page to guide you through your product.

Step 4

When you're finished staple this sheet to your product and turn it in

Product Guide for a Story

Parts	Criteria	Points
Organelles	1. The story includes analogies for each of the following organelles: <ol style="list-style-type: none"> a. Cell Membrane b. Endoplasmic Reticulum c. Golgi Apparatus d. Lysosome e. Nucleus f. Mitochondria g. Ribosome h. Vacuole 	40 (8 each)
Completion	2. The story is at least one page in length 3. All written words are easily readable 4. Name, date and period are on the top of the first page.	10 points 10 points 5 points
Organization	5. The story is organized so that it makes sense to the reader <ol style="list-style-type: none"> a. Has a beginning, middle and end b. Each analogy matches well to the real role of each organelle 	15 points

Product Guide for a Drawing

Parts	Criteria	Points
Organelles	1. The drawing includes a picture AND description beside each picture describing how it represents each of the following organelles: <ol style="list-style-type: none"> a. Cell Membrane b. Endoplasmic Reticulum c. Golgi Apparatus d. Lysosome e. Nucleus f. Mitochondria g. Ribosome h. Vacuole 	40 (8 each)
Completion	2. The drawing covers an entire page and is colorful. 3. All written words are easily readable 4. Name, date and period are on the top of the first page.	10 points 10 points 5 points
Organization	5. The picture is organized so that it makes sense to the reader and is neat. <ol style="list-style-type: none"> a. Easy to read and understand b. Neatly written, drawn and colored. 	15 points