

# PLANT CELL

Welcome Aboard our CELL MART Sales Team! We're glad you're joining our sales organization! As you know, Cell-Mart strives to be the one-stop shopping place for all of our customer's cellular needs. We stock the very latest models in membrane components, trendy genes, and subcellular organelles to appeal to a wide Eukaryotic customer base. Advertising is an important part of Cell-Mart's activities, and we're excited to have hired some of the top minds in media today to help us put together our newest sales campaign.

## REQUIREMENTS:

1. Create an advertising campaign for the organelles in a plant cell. Include the name, general structure, and function of the organelles.
2. Include a comparison of your cell type to other types of cells: plant cell or prokaryotic cell. Compare and contrast your products (organelles).
3. Be creative with the advertising campaign - you're trying to sell as many organelles for your plant cell as possible!
4. ALL Plant Cell Projects must include the following ORGANELLES:
  - o cell membrane
  - o cytoplasm
  - o nucleus & nucleolus
  - o ribosomes
  - o mitochondrion
  - o endoplasmic reticulum
  - o golgi apparatus
  - o cell wall
  - o central vacuole
  - o chloroplasts

***BE CREATIVE!!!!***

## PROJECT OPTIONS:

### 1. Catalog Department

- A. Create a catalog of all the cell parts/organelles for a plant cell. Include the name, describe the general structure, and function of the parts of the cell.
- B. Each page should contain a picture of the organelle, a flattering description of its function, a customer testimonial, and the price for the organelle.
- C. Compare the plant cell with an animal cell **and/or** a prokaryote cell. Compare and contrast the structures within each.
- D. Include a hand drawing of an plant cell that is labeled correctly. This could be the front cover of your Cell-Mart catalog.

## 2. Television Infomercial

- A. Create a television infomercial about Cell-Mart. It should inform the audience of the parts of a plant cell, including their names, general structures, locations, and functions.
- B. Compare the plant cell with an animal cell **and/or** a prokaryote cell. Compare and contrast the structures within each.
- C. **Include a hand drawing of an plant cell that is labeled correctly.**

## 3. Radio Advertisement

- A. Create a radio advertisement including a song, jingle, or ad campaign including all of the cell parts/organelles for a plant cell. Include the name, describe the general structure, and function of the parts of the cell.
- B. Compare the plant cell with an animal cell **and/or** a prokaryote cell. Compare and contrast the structures within each.
- C. **Include a hand drawing of an plant cell that is labeled correctly.**

## 4. Model

- A. Create a model representation of all the cell parts/organelles for a plant cell. Include the name, describe the general structure, and function of the parts of the cell.
- B. Compare the plant cell with an animal cell **and/or** a prokaryote cell. Compare and contrast the structures within each.
- C. **Include a hand drawing of an plant cell that is labeled correctly.** This is in addition to your model, not in place of it.

The CEO will judge your advertising campaign proposals on scientific accuracy, explanation of the organelle's functions, professionalism - including grammar and spelling - and creativity in your presentation. The information presented should be in your own words. Creativity is welcomed - that is why we hired you! But be careful not to promise more than our product can deliver. Customer satisfaction is our priority! Plenty of background information on our products can be found on the internet or in various textbooks. Use your resources!

## **Extra Credit: Cell T-Shirt**

For a 10 point grade raiser –

1. Get an inexpensive, white, adult undershirt that is large enough to wear.
2. Using a pencil, **very lightly** draw two large cells (a plant cell and its organelles on one side, the animal cell on the other) filling the majority of the surface area.
3. Cells must include: Cell wall/Cell membrane, nucleus, cytoplasm, endoplasmic reticulum, ribosomes, mitochondria, vacuoles, lysosomes, chloroplasts, Golgi bodies.
4. Colors should assist in identifying the organelles (i.e. chloroplasts = green; ribosomes = purple, etc...)
5. You will be able to wear your shirt for CELEBRATE CELL Day! You will also be allowed to wear it on any test day!

*Be prepared to share with your classmates  
BE CREATIVE!!!!  
Have fun!!!!*

# Cell Project Grading Sheet

Name(s) \_\_\_\_\_

Class Period \_\_\_\_\_

## Cell Mart (Plant Cell Drawing)

Criteria	Yes	No	Satisfactory	Needs Improvement	Unsatisfactory
1. Plant Cell is hand drawn on plain paper and labeled correctly/ Plant Model is handmade and labeled correctly			7	3	1-0
2. Cell is colored.			6	3	1-0
3. Sketch/Model is correctly shaped and labeled as a plant cell, as a prokaryotic or eukaryotic cell			7	3	1-0
4. Cell membrane			3	2	1-0
5. Cytoplasm			3	2	1-0
6. Mitochondria			3	2	1-0
7. Golgi apparatus			3	2	1-0
8. Central Vacuole			3	2	1-0
9. Chloroplast			3	2	1-0
10. Ribosomes			3	2	1-0
11. Endoplasmic reticulum			3	2	1-0
12. Nucleus & Nucleolus			3	2	1-0
13. Cell Wall			3	2	1-0

Cell Drawing points: \_\_\_\_\_ /50

## Cell Mart (Plant Cell Artifact)

Criteria	Yes	No	Satisfactory	Needs Improvement	Unsatisfactory
1. Advertisement/Analogy catches the eye, is clear and neat.			5	2	1-0
2. Text /script/ lyrics clearly states what is being sold and is in the student's own words.			5	3	1-0
3. Testimonials accurately refer to organelles' functions			5	3	1-0
4. Prices are specified for each organelle.			5	2	1-0
5. Comparison of plant cell and a animal and/or prokaryotic cell			10	4	1-0
6. Puts name(s) and period on project			5	2	1 - 0
7. Completes yes/no column of the rubric			5	2	1-0
8. Handed in on time Due:			10	One week late 5	More than one week late 1 - 0

Cell Artifact Points \_\_\_\_\_ / 50

Total Project Points: \_\_\_\_\_ /100 = \_\_\_\_\_ %

# OPTIONAL Task and Time Planner

Start Project: \_\_\_\_\_  
 \_\_\_\_\_

Project Due: \_\_\_\_\_

Task	Start Date	Date to Complete	Initials of student, parent, or teacher
Project discussed. Choose which project option you will complete - Plant or Animal Cell.			
Choose which type of artifact you will complete.			
Begin project by filling out questions below and doing research			
Begin building/creating your artifact			
Have an adult check your work			
Complete <b>check list</b> on rubric			
Hand - In			

## Cell Mart Planning Sheet

Use this sheet to help you to better organize your notes on your gathered research about your organelles.

1. *What is your organelle's job?*
2. *Does this organelle work with any other organelles in order to do its job?*
3. *Where is this organelle's location in the cell?*
4. *How many of this organelle are in the cell? Just one? several? many? Why?*

Use your answers to these above questions to create some ideas for your cell catalog.