

Cell Analogy Project

Objectives:

- Relate cell organelles functions to real world systems
- Illustrate the systems of a working cell in terms of the systems of the real world
- Produce a product that is neat, clear and creative

Procedure:

- Each student will work independently
- Choose a real world working system and decide how each organelle of the eukaryotic cell can be compared to the components and functions of the real world system. It is best to choose a real world system that relates to your technical area. Some ideas are:

School, Hospital, City, Mall, Country, Restaurant, Lab, Salon, Construction Site, Prison, etc.

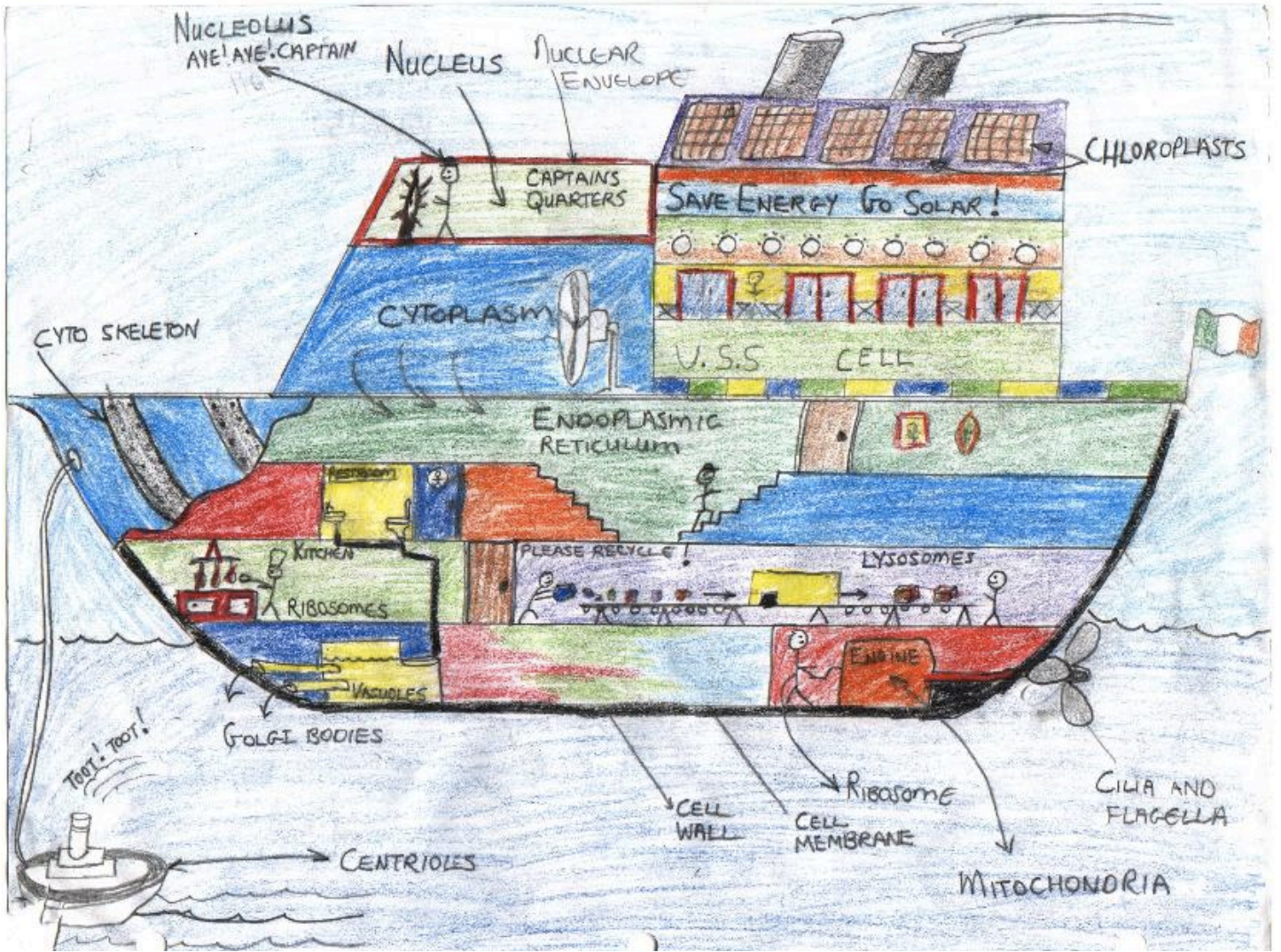
- Illustrate the real world system and the cell you are comparing it to. This must be on poster board (will be provided for you), and neatly drawn by you. It must be colored and show very high effort. Not artistic? Trace diagrams, make pictures on the computer...get creative!
- The cell image and real world system image both must be labeled.
- On a separate sheet, attached to the front or back of your poster board, on a three column include the organelle, the analogous structure, and a sentence that explains the analogy. Make sure you have all the organelles included
- On Wednesday 10/19/11 you must tell me the real world system you will be comparing the cell to and whether you will use a plant or animal cell.

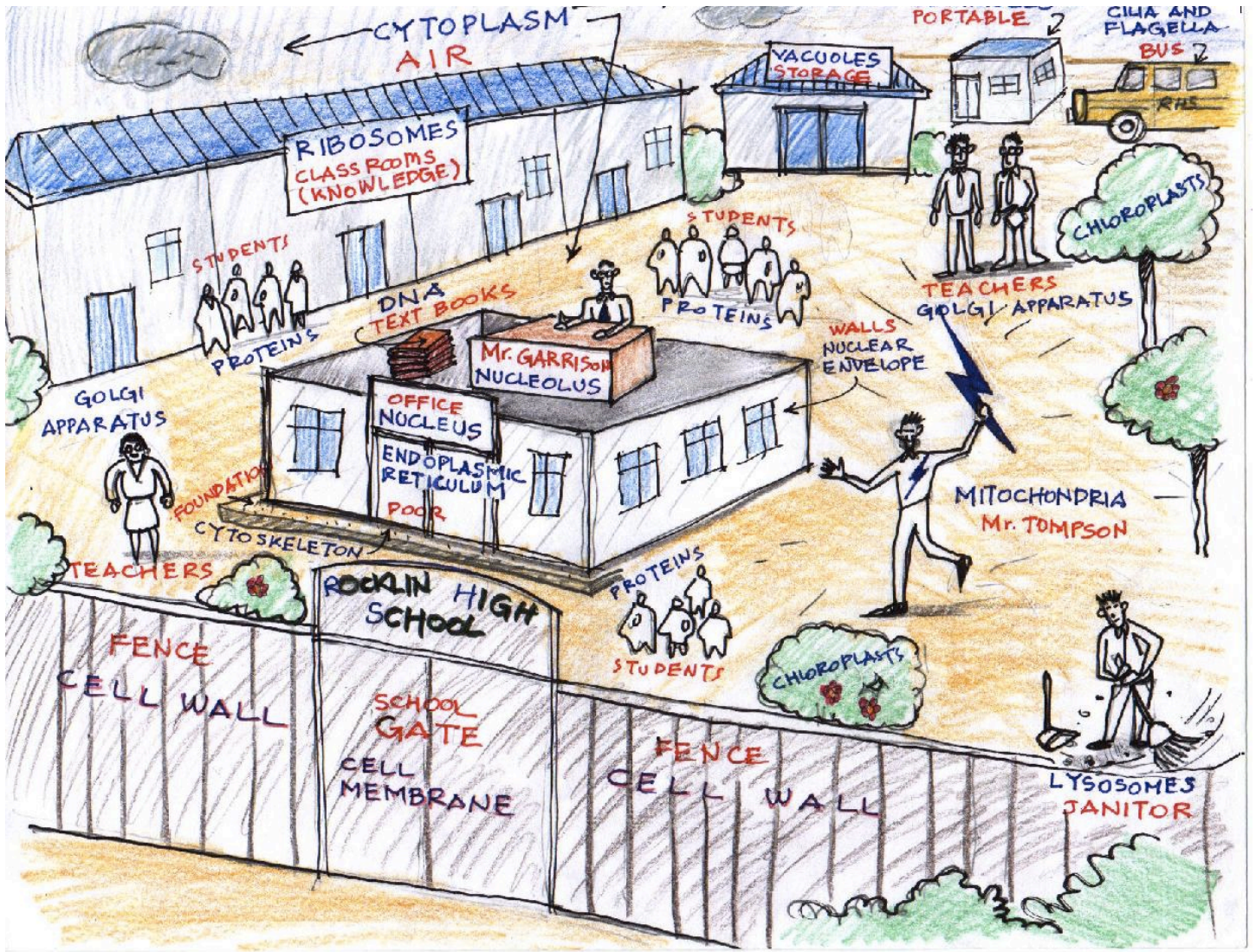
Organelles to be included and **MUST** be numbered in this order.

1. Cytoplasm
2. Cytoskeleton
3. Endoplasmic reticulum (rough and smooth can be same structure)
4. Golgi Apparatus
5. Lysosome
6. Mitochondria
7. Nucleus
8. Plasma Membrane
9. Ribosome
10. Vacuole
11. Cell Wall (plant cells only)
12. Chloroplasts (plant cells only)

Example of 3 Column Chart for a Football team (yours will include *all* organelles!)

Cell Organelle	Analogous Structure	Explanation
Nucleus	Coach	The coach directs all of the activities and makes the plan for the game...like the nucleus directs all cell activities and contains all information.
Cell Membrane	Sidelines of the Field	The sidelines of the field define what is in the field and what is out...like the cell membrane is the boundary between the inside and outside of the cell.





Other Rooms

Walls

Cabinets

Fan

Stove

Walkways

Island

Lip

Chef in Training

Lamp

FOIL

Foil Wrap

Recipes

Garbage Disposal

Chef

Wood, Brick, Cement

Window

Toaster

Power Box

Garbage Can

Rug

Door

Valerie Dutton

