

Cell Project Biology Honors

This project is due on **Feb. 23 (A day) or 24 (B day)**. Pace yourself on this project, because we will be doing other things in class too and may have other homework to complete!

Over the next two weeks, we will be reviewing, learning about cell structure and function. You must complete a project that shows your understanding of the following concepts as they relate to a eukaryotic cell:

1. Cell structure including organelles (types, location, and functions) and cell membrane (structure).
2. Cellular transport (diffusion, osmosis, active transport, endocytosis and exocytosis)

You can choose the way that you demonstrate your knowledge. This can be done using posters, models, story book writing, book or other paper projects, games, other. If you have an idea that you are not sure about, check with me first. Following is the matrix I will be using to grade your project, so you can make sure you include everything. This will be worth 50 points.

Component	3 Points	2 Points	1 Point	0 Points
cell membrane	phospholipid bilayer, imbedded proteins and carbohydrates all accurately portrayed	bilayer illustrated with most components portrayed	membrane present, but most of the components are missing or inaccurately portrayed	not present or completely inaccurate
mitochondrion	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
ribosomes	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
endoplasmic reticulum (smooth and rough)	present, structure and function demonstrated	present, structure or function demonstrated OR either smooth or rough, but not both demonstrated	present, structure and function not present, or inaccurate	not present
Golgi Apparatus	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
lysosomes	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
Cytoskeleton	present, examples of structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
nucleus	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
plant cell structures if doing a plant cell (cell wall, plastids, vacuole)	present, structure and function demonstrated	present, structure or function demonstrated	present, structure and function not present, or inaccurate	not present
diffusion	accurate portrayal of diffusion across cell membrane	-----	diffusion shown, but not accurate	not present
osmosis	accurate portrayal of osmosis in a cell	-----	osmosis shown, but not accurate	not present
active transport	accurate portrayal in a cell	-----	shown, but not accurate	not present
endocytosis	accurate portrayal in a cell	-----	shown, but not accurate	not present
exocytosis	accurate portrayal in a cell	-----	shown, but not accurate	not present
phagocytosis	accurate portrayal in a cell	-----	shown, but not accurate	not present
neatness effort and creativity	extremely neat and creative; obvious extensive effort in production	neat and creative, some effort obvious in production	lacking in creativity, neatness, and/or extensive effort	very simplistic, very little effort, messy work.