

CELL PROJECT

The cell is the basic unit of all living things. Please complete ONE of the following projects to reinforce our study of cell structure and function. Be prepared to describe your work to the class on the day the project is due. Final project must be turned in **on or before** _____.

OPTION ONE: Four Pictures, One Word

This activity is based on the game app **4 Pics 1 Word**. The game provides 4 pictures and the player deduces the word represented by the pictures. The game provides a letter bank to use to spell the one word which fits all the pictures.

Here is a sample: ⑦

These four images represent the word “think.”



Your task is to come up with four pictures that represent the parts of the cell. You may use no more than one image of the cell part itself, and all the rest of the images need to be related to the function.

So if I were doing mitochondria, I could put one image of mitochondria, one image of a power plant, one image of a sprinter getting ready to run, and one image of sugar. This all ties into the function of the mitochondria as the "powerhouse" of the cell, where sugar is converted into energy.

Remember when selecting images that all images must be appropriate. You can find pictures or draw them yourself. They must be either your own drawings or public domain. Here is a link to a public domain image site: <http://pics4learning.com/>

The final product will be submitted as a **Google Slides** show.

Mitochondria Example:

You must do all the major parts of the cell.

Here is a list:

Organelles	cell wall
cell membrane	mitochondria
cytoplasm	nucleolus
endoplasmic reticulum	lysosomes
nucleus	Golgi body
chromatin	chloroplast
vacuole	



Your answer key needs to include the name of the cell part, as well as its function.

OPTION TWO: Build a 3-D Model of a Plant or Animal Cell.

Make a three dimensional model of a plant or animal cell. Identify the type of cell (plant or animal). Include all the appropriate organelles listed in Option 1 *that are appropriate for your type of cell*. Use whatever materials you like (Styrofoam, wood, clay, etc.) Be creative! The cell must be at least 20 centimeters wide and long. Again, it must contain the appropriate organelles (see the 12 organelles listed in Option 1) and the organelles should be identified with their functions listed; either directly on the model or typed on a separate piece of paper. (See your class notes, the internet, or the textbook for information on organelles.)

OPTION THREE: Design and Create a T-Shirt With a Picture of the Cell.

Design and create a T-shirt with a picture of a cell on it. Identify the type of cell (plant or animal). Include the appropriate organelles (see the 12 organelles listed under Option 1) and label each directly on the shirt with the functions listed either on the front or back of the shirt. Use fabric paints, puff paints, scraps of fabric, beads, ribbon, or anything else you would like. You may not find a picture of the cell on the internet and use iron-on paper to attach it to a t-shirt; it must be designed by you! Be creative! (See your class notes, the internet, or the textbook for information on organelles.)

OPTION FOUR: Create a video.

Plan and record a video explaining the parts of the cell and how they work. You can have people pretend to be cell parts, make a “cell city” out of Legos, create animation, make a music video, or even make an informative video in the style of Bill Nye. The video must include the basic parts listed in option 1, must be easy to hear and understand, and must be in a format that will work on the school equipment (i.e., mp4). All the cell parts listed in option one, along with their functions, must be included. Here is a link to a site that can help you get started.

<http://goo.gl/ZcxZ7a>

OPTION FIVE: Make a cell song.

Create a song or rap that teaches the parts of the cell, similar to the Cell Rap posted on Edmodo. Here are the requirements.

- 1) The song must mention the major organelles and the function of each organelle. Use the word list from option 1.
- 2) The song **MUST** be at least 10 lines.
- 3) The song **MUST** be appropriate-no parental advisory CDs, please! Your song/rap must be appropriate for **ALL** ages.
- 4) In addition to writing your song, you must perform it. You may perform it live in class, or record it in a format that can be played in class.
- 5) Lyrics must be accurate and legible, and included on your CD cover.

NOTE: I have Googled and looked up every cell/organelle song out there. If you find one and attempt to pass it off as your own I will know.

GRADING

Points will be awarded using the following rubric.

Category	Met goal	Minor errors	Parts missing, mostly complete	Messy, incomplete, or off-topic	Did not turn in
Followed directions for chosen project	10	9	7	5	0
Correct organelles are depicted for chosen cell	30	27	24	20	0
Correct description of functions of organelles	30	27	24	20	0
Organization and neatness	15	14	12	10	0
Creativity and appeal	15	14	12	10	0
Turned in before Due Date +5					
Turned in late -5					
Total Points Earned					