



# Cell Theory, Structure and Transport

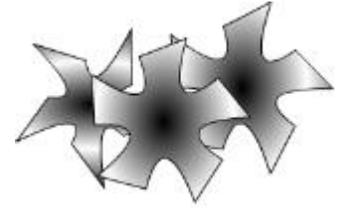
Name: \_\_\_\_\_

Period: \_\_\_\_\_

## Cell Analogy Project - Cell Song

Start thinking analogies...

**Cell City Analogy :** In a faraway city called Cookie City, the main export and production product is the steel widget. Everyone in the town has something to do with steel widget making and the entire town is designed to build and export widgets. The town hall has the instructions for widget making, widgets come in all shapes and sizes and any citizen of Cookie can get the instructions and begin making their own widgets. Widgets are generally produced in small shops around the city, these small shops can be built by the builder's union (whose headquarters are in town hall).



After the widget is constructed, they are placed on special carts which can deliver the widget anywhere in the city. In order for a widget to be exported, the carts take the widget to the postal office, where the widgets are packaged and labeled for export. Sometimes widgets don't turn out right, and the "rejects" are sent to the scrap yard where they are broken down for parts or destroyed altogether. The town powers the widget shops and carts from a nuclear power plant that is in the city. The entire city is enclosed by a large wooden fence, only the postal trucks (and citizens with proper passports) are allowed outside the city.

Match the parts of the city (underlined) with the parts of the cell.

- |                                |                        |
|--------------------------------|------------------------|
| 1. Mitochondria _____          | 6. Protein _____       |
| 2. Ribosomes _____             | 7. Cell Membrane _____ |
| 3. Nucleus _____               | 8. Lysosomes _____     |
| 4. Endoplasmic Reticulum _____ | 9. Nucleolus _____     |
| 5. Golgi Apparatus _____       |                        |

### Project Reminder!

1. include typed labels for all organelles?    2. include a legend of analogies matching your model?    3. cite all sources?

#### Plant Cell Checklist

- |                     |                       |                 |
|---------------------|-----------------------|-----------------|
| _____ Cell Membrane | _____ Nucleus         | _____ Cytoplasm |
| _____ Mitochondria  | _____ Golgi body      | _____ Smooth ER |
| _____ Rough ER      | _____ Ribosome        | _____ Cell Wall |
| _____ Chloroplast   | _____ Central Vacuole | _____ Lysosome  |
| _____ Nucleolus     |                       |                 |

#### Animal Cell Checklist

- |                     |                  |                 |
|---------------------|------------------|-----------------|
| _____ Cell Membrane | _____ Nucleus    | _____ Cytoplasm |
| _____ Mitochondria  | _____ Golgi body | _____ Smooth ER |
| _____ Rough ER      | _____ Ribosome   | _____ Lysosome  |
| _____ Cytoskeleton  | _____ Cilia      | _____ Centriole |
| _____ Nucleolus     |                  |                 |



# Cell Theory, Structure and Transport

Name: \_\_\_\_\_ Period: \_\_\_\_\_

## Cell Song Video Project

- The song must mention 12 organelles and the function of each organelle. A list of the organelles is provided below-make SURE that you have the proper function of each organelle; points will be deducted for incorrect organelle function.
- The song MUST be at least 10 lines.
- The song MUST be appropriate-Cell Factory Records does not allow their artists to have parental advisory CDs, therefore your rap must be appropriate for ALL children under 17.

**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. If you still attempt to try it you group will received a zero for this project.

Plant Cell	Animal Cell
Cell Membrane	Cell Membrane
Nucleus	Nucleus
Cytoplasm	Cytoplasm
Mitochondria	Mitochondria
Golgi Body	Golgi Body
Endoplasmic Reticulum	Endoplasmic Reticulum
Ribosome	Ribosome
Cell Wall	Lysosome
Chloroplast	Cytoskeleton
Central Vacuole	Cilia
Lysosome	Centriole

### 3. Here are the *specific* requirements:

- All group members must be in the video at some point. (If a group member is not seen in the video at some point they will not be getting ANY credit for participating. Yes, even if you are the cameraman!)
  - Whenever a cell organelle is mentioned in the song/rap the group must illustrate that organelle in some way (this can be done with a hand drawn picture or any organelle representation that creatively shows the organelle *structure*). I WILL COUNT THESE.
  - There must be some type of background music – it can be a real song or you can make up your own beat, either way, please do not turn in a video of you and your group members talking the lyrics. The group will NOT receive credit if that is done!
  - The lyrics of the song/rap must be understandable (if you would like to edit your video and put the words as subtitles on the bottom of the screen that always helps, but is NOT required)
  - The video must be at least 1 minute long. It is expected for them to be much longer, but your requirement is at least 1minute.
  - BE CREATIVE! Google or YouTube some examples for ideas, they are out there!
- \*You can create a storyline to the video, you can dress up, create a backdrop that goes along with the song, etc. It doesn't matter what you do to make it creative just understand that creativity is part of your grade therefore simply performing the lyrics to some type of music will not earn an A grade.
- g. Upload your video to YouTube and e-mail the link to your teacher: Mr. Cook: [jeremy.cook@ftcsc.k12.in.us](mailto:jeremy.cook@ftcsc.k12.in.us)

Characteristic	
Picture, drawing, or representation of EACH organelle mentioned (2 points each)	/24 points
Correct function expressed for each organelle in the rap (4 points each)	/48 points
Creativity and rhyme in the Organelle Rap lyrics & video	/10 points
Video is over 1 minute long	/10 points
Lyrics are understandable	/10 points
Background music/beat	/10 points
	<b>/112 points</b>
<b>Total Percentage</b>	<b>%</b>