

A Cell is Like A ... (100 points)

You will compare an animal or plant cell (your choice) to something else so that you complete the sentence “A Cell Is Like A...” Ideas for comparison include: city, car, sports team, etc. You will need to complete a drawing which shows what you are comparing a cell to. Make sure you include what each part is, what part of the cell it is like, and how each part is like the cell part (function and importance).

Drawing:

- You will draw the animal or plant cell in the center of the poster board. Draw and label the required organelles in your picture. Your drawing needs to be neatly drawn and neatly colored.
 - Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
 - Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall
- Identify the type of cell (plant or animal) on your poster.

Comparison:

- Write a comparison to show the similarity between the cell organelle and an everyday object/person/place that has a similar function or use as the cell organelle. Be sure to explain the reasoning behind your comparisons. (For example: The Golgi apparatus is like a post office because it modifies, sorts and packages proteins for delivery just like a post office packages and sorts mail for delivery.)
- Find magazine or newspaper pictures of the everyday object/person/place that you are using and include them on your poster next to the description. You may also draw the object/person/place.



Grading Rubric for Cell is Like A ... (100 points)

	Advanced	Proficient	Unsatisfactory
<p align="center">Relevant Organelles (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p align="right">_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p align="center">Descriptions of Organelle Functions (50 points – 5 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p align="right">_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p align="center">Comparison to everyday object/place/person and pictures of everyday object/place/person (20 points – 2 points per organelle)</p> <p align="right">_____ pts</p>	<p>Comparison and pictures for ALL organelles are present and relevant.</p>	<p>Comparison and pictures for some organelles to the cell are present and relevant.</p>	<p>Comparison and pictures for each organelle to the cell are few to none.</p>
<p align="center">Neatness and Overall Appearance (10 points)</p> <p align="right">_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Children's Book (50 points)

You will create a children's book about an animal cell or a plant cell. Remember, you will need to make it simple enough for a late elementary school student to understand. You will need to include pictures (drawn by you). It must be long enough to explain all of the required organelles.

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall

Your book must include:

- A cover that includes a title and an illustration
- A title page
- The story
 - The story can be non-fiction (you are describing the cell and its organelles)
 - You can explain the cell and have pages explaining each organelle
 - It can be a "travel guide" explaining what you could see if you travelled through a cell
 - The story can be fiction.
 - The organelles can be the storyteller
 - Someone could get stuck in a cell and while trying to get out, he/she talks to the organelles to find out what they do.
- There must be an illustration on each page.

When you are done creating your book, you may staple the book together. You may also choose to punch holes along the edge and use yarn/string/ribbon to hold your book together.



Grading Rubric for Children’s Book (50 points)

	Advanced	Proficient	Unsatisfactory
<p>Relevant Organelles (10 points – 1 point per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Format and illustrations (15 points)</p> <p>_____ pts</p>	<p>Presented in a children’s book format and includes ALL required parts of a children’s book; includes illustrations on each page</p>	<p>Presented in a children’s book format and includes most required parts of a children’s book; includes illustrations on most pages</p>	<p>Presented in a children’s book format and includes few of the required parts of a children’s book; illustrations are absent or few</p>
<p>Neatness and Overall Appearance (5 points)</p> <p>_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

3-D Poster (50 points)

Make a three dimensional poster of an animal or plant cell. Identify the type of cell (plant or animal) on your poster. Ideas for materials include: yarn, beads, toothpicks, pipe cleaners, string, or straws. Use any types of materials as long as they are inexpensive and easily available around the house or purchased inexpensively. Use your imagination, but be sure it will stay together!

- Label the required organelles on your poster
 - Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
 - Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall
- Describe the functions of the required organelles on your poster
- Describe how plant and animal cells are similar and different. (Example: Why are chloroplasts important?)
- The poster should be no smaller than 11 inches by 17 inches and no larger than 24 inches by 36 inches.



Grading Rubric for 3-D Poster (50 points)

	Advanced	Proficient	Unsatisfactory
<p>Relevant Organelles (10 points – 1 point per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Similarities and Differences between plant and animal cells (15 points)</p> <p>_____ pts</p>	<p>Describes three ways that plant and animal cells are different; describes how the organelles and their functions help the plant or animal cell carry out necessary processes</p>	<p>Describes two ways that plant and animal cells are different; some information to describe how the organelles and their functions help the plant or animal cell carry out necessary processes</p>	<p>Describes one or no ways that plant and animal cells are different; lacks information that describes how the organelles and their functions help the plant or animal cell carry out necessary processes</p>
<p>Neatness and Overall Appearance (5 points)</p> <p>_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Comic Strip – Multiple Frame (100 points)

You will create a 6-10 frame comic strip that describes an animal or plant cell and the functions of the required organelles. Your comic strip can be hand drawn or computer generated, but must be your original work! Be creative as you accurately describe the functions of the cell and its organelles. Humor and creativity are encouraged for this assignment.

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall
- Comic strip format:
 - Your task is to construct a comic strip to introduce your new superhero. Your superhero can be made up of a plant or animal cell – OR - you can create several superheroes and arch villains that are each an individual organelle.
 - You'll want to make it interesting and informational.
- Your comic must include the following:
 - Title
 - Your comic strip should tell a story
 - A cell or organelle name appears somewhere in the hero's name
 - The superhero powers must be the organelle functions in the cell
 - You can create an arch villain that would be beaten in a battle against your superhero



Grading Rubric for Multiple Frame Comic Strip (100 points)

	Advanced	Proficient	Unsatisfactory
<p>Relevant Organelles (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (30 points – 3 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Comic strip format (40 points – 4 points per organelle)</p> <p style="text-align: right;">_____ pts</p>	<p>All organelles are represented as superheroes or superpowers; comic strip tells a story and includes 6-10 illustrated frames</p>	<p>Some organelles are represented as superheroes or superpowers; comic strip story or illustrated frames are partially complete</p>	<p>Few to no organelles are represented as superheroes or superpowers; comic strip story and illustrations are not complete or missing</p>
<p>Neatness and Overall Appearance (10 points)</p> <p style="text-align: right;">_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Comic Strip – Single Pane (10 points)

You will create a one frame comic strip that describes an animal or plant cell and the functions of one organelle. Your comic strip can be hand drawn or computer generated, but must be your original work! Be creative as you accurately describe the functions of the organelle. Humor and creativity are encouraged for this assignment.

- Animal Cell Projects can include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects can include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall
- Comic strip format:
 - Your task is to construct a comic strip to introduce your new superhero. Your superhero is an individual organelle.
 - You'll want to make it interesting and informational.
- Your comic must include the following:
 - Title
 - Your comic strip should tell a story about your organelle hero
 - The organelle name appears somewhere in the hero's name
 - The superhero powers must be the organelle functions in the cell
 - You can create an arch villain that would be beaten in a battle against your superhero

Name _____ Date _____ Period _____

	Advanced	Proficient	Unsatisfactory
<p>Chosen Organelle is represented as a superhero (2 points)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>Relevant organelle chosen and the organelle name appears somewhere in the hero's name</p>	<p>Relevant organelle chosen and the organelle name does not appear somewhere in the hero's name</p>	<p>Relevant organelle not chosen and the organelle the superhero is not given a name</p>
<p>Descriptions of Organelle Functions (3 points)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>The superhero powers provide a detailed and accurate descriptions what organelle you are, what you do and why you are important to the cell</p>	<p>The superhero powers provide some information and/ or an inaccurate description what organelle you are, what you do and why you are important to the cell</p>	<p>The superhero powers provide little to no description of what organelle you are, what you do and why you are important to the cell</p>
<p>Comic strip format (4 points)</p> <p>_____ pts</p>	<p>Comic strip tells a story and illustration is complete</p>	<p>Comic strip story and/ or illustration is partially complete</p>	<p>Comic strip story and/ or illustration is incomplete</p>
<p>Neatness and Overall Appearance (1 point)</p> <p>_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Song/Poem/Rap (50 points)

You will create an **original** song, poem or rap describing an animal or plant cell and the functions of the required organelles. If you perform or record your performance you will earn an additional 50 points.

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall

Song or rap:

- Write song lyrics about either an animal cell or a plant cell and the function of the required organelles. Your lyrics must include information about the function of each organelle. You will also describe how plant and animal cells are similar and different. Create an album cover that has an illustration of the cell and color the illustration. (You can use the tune to a familiar song or make up a tune, but the lyrics must be written by you!)

Poem:

- Write a poem about either an animal cell or a plant cell and the function of the required organelles. Be sure to describe the function of each organelle in a poetic and creative way. You will also describe how plant and animal cells are similar and different. You will need to create an illustration of the cell and color the illustration.



Grading Rubric for Song/Poem/Rap (50 points)

	Advanced	Proficient	Unsatisfactory
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<p>Relevant Organelles (10 points – 1 point per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Similarities and Differences between plant and animal cells (15 points)</p> <p style="text-align: right;">_____ pts</p>	<p>Describes three ways that plant and animal cells are different; describes how the organelles and their functions help the plant or animal cell carry out necessary processes</p>	<p>Describes two ways that plant and animal cells are different; some information to describe how the organelles and their functions help the plant or animal cell carry out necessary processes</p>	<p>Describes one or no ways that plant and animal cells are different; lacks information that describes how the organelles and their functions help the plant or animal cell carry out necessary processes</p>
<p>Format (5 points)</p> <p style="text-align: right;">_____ pts</p>	<p>Project is completed in the required format; includes a detailed illustration</p>	<p>Project is meets some requirements of the format; includes an incomplete illustration</p>	<p>Project is not completed in the required format; no illustration is included</p>

Total points _____

Comments: _____

T-shirt (50 points)

Design and create a t-shirt with a picture of an animal cell or plant cell on it. Identify the type of cell (animal or plant). Include the required organelles on your t-shirt. Label each organelle directly on the t-shirt with the functions of each organelle listed on the back of the t-shirt. Use fabric paints, puff paints, fabric markers, scraps of fabric, beads, ribbon, or anything else you would like. You may not find a picture of a cell on the internet and use iron-on paper to attach it to the shirt. The shirt must be designed by you. Be creative!

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall



Grading Rubric for T-Shirt (50 points)

Name _____ Date _____ Period _____

	Advanced	Proficient	Unsatisfactory
<p align="center">Relevant Organelles (10 points – 1 point per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p align="right">_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p align="center">Descriptions of Organelle Functions (30 points – 3 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p align="right">_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p align="center">Neatness and Overall Appearance (10 points)</p> <p align="right">_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail. Includes a picture on the front and description of organelles on the back</p>	<p>Project shows good effort. Is of average quality and average appearance. Includes a picture on the front and description of organelles on the back, but is missing some required parts</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete. Includes a picture on the front and description of organelles on the back, but is includes few to no required parts</p>

Total points _____

Comments: _____

Interview with a Cell (50 points)

You are a news reporter that works for a magazine or newspaper. Create an interview with a cell (you can choose an animal or plant cell) to show information from the perspective of the cell. Be creative and have fun writing information about the amazing things a cell does in its lifetime. Be sure to include what kind of cell you are in the interview.

You need to include information about all required organelles and the functions of the organelles in your interview. Include 2 or more illustrations with your interview. Be sure that your interview helps the reader understand the main structures, roles, responsibilities and activities of cells. Your finished product should look like a magazine or newspaper article.

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall

Required elements of an interview in a magazine or newspaper article:

- A headline - text at the top of a newspaper article, indicating the nature of the article. The headline catches the attention of the reader and relates well to the topic
- Byline - A byline gives the name of the writer
- Lead - a sentence that captures the attention of the reader and sums up the focus of the story
- Introductory paragraph - tells the most important facts and answers the questions: who, what, where, when, why, and how
- Body - includes details and gives more information about the topic
- Conclusion - a summary statement

Grading Rubric for Interview with a Cell (50 points)



	Advanced	Proficient	Unsatisfactory
<p>Relevant Organelles (10 points – 1 point per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p>_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Format and illustrations (15 points)</p> <p>_____ pts</p>	<p>Presented in an interview/newspaper or magazine article format and includes ALL of the required parts of an interview/newspaper or magazine article; includes 2 or more illustrations</p>	<p>Presented in an interview/newspaper or magazine article format and includes some of the required parts of an interview/newspaper or magazine article; includes 1 illustration</p>	<p>Presented in an interview/newspaper or magazine article format and includes few or none of the required parts of an interview/newspaper or magazine article; includes no illustrations</p>
<p>Neatness and Overall Appearance (5 points)</p> <p>_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Travel Brochure (100 points)

You will create a travel brochure that describes an animal or a plant cell as if it were a large exhibit, amusement park, ski resort, or other travel location. You should accurately describe the cell and the functions of the required organelles and how they compare to the real-world attractions at your travel location. Include drawings of the real-world attractions on your brochure. Humor and creativity are encouraged for this assignment. Your goal is to attract visitors to the plant or animal cell.

- Animal Cell Projects MUST include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects MUST include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall

How to make a Travel Brochure

- Fold a piece of paper into threes; you can use regular printer paper, construction paper or a small poster board
- The front cover of the brochure should include the name of your cell and a graphic of your cell. It should be attractive and eye catching. Remember you want people to visit your cell!
- The inside needs to include:
 - a brief description of the travel location
 - things to do
 - places to stay
 - where to eat
 - how to get around
 - Comparison between the organelles and the real-world attraction (*Ex. While staying at our resort please remember to tip our Lysosome ladies generously. They are the best cleanup crew around. They use special digestive enzyme cleaning agents to destroy any dirt or grime!*)
- The back cover should have a map (a labeled cell diagram) and fictional directions to your cell.



Grading Rubric for the Travel Brochure (100 points)

	Advanced	Proficient	Unsatisfactory
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Name _____ Date _____ Period _____

<p>Relevant Organelles (20 points – 2 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>All relevant organelles are included and organelles are all correctly placed with plant or animal cell.</p>	<p>Most organelles are included (few missing). Most organelles are correctly placed with plant or animal cell.</p>	<p>Few to no organelles included in project or few to no organelles correctly placed with plant or animal cell.</p>
<p>Descriptions of Organelle Functions (30 points – 3 points per organelle)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	<p>Accurate descriptions of ALL organelle functions are present.</p>	<p>Most descriptions of organelle functions are present and correct.</p>	<p>Descriptions of organelle functions are absent or few. Descriptions of functions present for most or all organelles but are inaccurate.</p>
<p>Comparison to real-world attractions and pictures of real-world attractions (40 points – 4 points per organelle)</p> <p style="text-align: right;">_____ pts</p>	<p>Comparison and pictures for ALL organelles are present and relevant.</p>	<p>Comparison and pictures for some organelles are present and relevant.</p>	<p>Comparison and pictures for few to no organelles are present and relevant.</p>
<p>Neatness and Overall Appearance (10 points)</p> <p style="text-align: right;">_____ pts</p>	<p>Project is neat and well done. Shows excellent effort and attention to detail.</p>	<p>Project shows good effort. Is of average quality and average appearance.</p>	<p>Project shows lack of effort and/or attention to detail. Is messy or incomplete.</p>

Total points _____

Comments: _____

Organelle Autobiography (10 points per organelle, up to 100 points)

You will write an autobiography for an organelle. This means you write in the first person from the perspective of the organelle. This autobiography describes what you are, what you do and why you are important to the cell. Your autobiography should be **half** page in length and should have a **half** page drawing of the organelle that is colored.

- Animal Cell Projects can include the following 10 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole.
- Plant Cell Projects can include the following 12 organelles: nucleus, ribosomes, cytoplasm, mitochondria, endoplasmic reticulum, Golgi body, cell membrane, chromosomes, lysosome, vacuole, chloroplast, cell wall

Use the template below to create your autobiography.

Picture



Grading Rubric for the Organelle Autobiography (10 points per organelle, up to 100 points)

Name _____ Date _____ Period _____

	Advanced	Proficient	Unsatisfactory
<p style="text-align: center;">Chosen Organelle(s) (3 points)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	A relevant organelle is chosen and drawn	A relevant organelle is chosen and drawing is incomplete	A relevant organelle is chosen and drawing is missing
<p style="text-align: center;">Descriptions of Organelle Functions (5 points)</p> <p>[] Cell membrane [] Nucleus [] Endoplasmic Reticulum [] Golgi apparatus [] Ribosomes [] Mitochondria [] Vacuole [] Cytoplasm [] Chromosomes [] Lysosomes [] Chloroplasts (PLANT CELL) [] Cell Wall (PLANT CELL)</p> <p style="text-align: right;">_____ pts</p>	Detailed and accurate descriptions what organelle you are, what you do and why you are important to the cell	Some information and/or an inaccurate description what organelle you are, what you do and why you are important to the cell	Little to no description of what organelle you are, what you do and why you are important to the cell
<p style="text-align: center;">Neatness and Overall Appearance (2 points)</p> <p style="text-align: right;">_____ pts</p>	Project is neat and well done. Shows excellent effort and attention to detail.	Project shows good effort. Is of average quality and average appearance.	Project shows lack of effort and/or attention to detail. Is messy or incomplete.

Total points _____

Comments: _____
