Georgia Performance Standard- SB1a. Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction.

Cells contain many parts that have to work together in order for the cell to survive. Each part of the cell has a specific role. If one part of the cell doesn’t do its job, it affects the entire cell in a negative way. We can compare a cell to a city. Like cells, cities can be broken down into different parts. These different parts must work together in order for the city to run smoothly. What would happen if the trash was never picked up or the dumpsters never emptied? The city would stink!! What would happen if the energy power plants decided to take a day off? All of these parts are very important! You will see that all of the parts in a cell, like a city, are very important as well.

Task Explanations

Cell City Map
In your group, work together to plan and create both a rough draft blueprint of your cell city. It should include the following:

- Labels of all cell organelles and their corresponding city structures
- Name of city (Be creative!)

You may want to make a rough draft first, as you will be graded for neatness as well as accuracy! Your map may be done in pencil, pen, or marker as long as it is neatly done. You will be constructing a model from your map.
Cell City Model
In your group, create a 3-D model for your cell city. The model should be made of materials from home, and should have a large base. Be sure to include a label for all cell organelles and corresponding city structures! Your labels need to be attached to toothpicks. Your model should look like your map! BE CREATIVE!

You may use (but are not limited to) materials such as the following. Please do not use anything that will ruin.

Pipe cleaners
Legos
Toy cars
Dollhouse furniture
Markers
Aluminum foil
Stickers
Modeling clay
Toothpicks
Packing peanuts

Blocks
Poster board
Construction paper
Bobby pins
Macaroni pieces
Wooden rods
Cotton balls
Popsicle sticks

Career Day
Each member will chose one of the following careers and complete the job associated with that role. See the job descriptions below.

- Travel Agent
- Newspaper Journalist
- Musician/Poet

*Travel Agent: You will create a brochure for your cell city.

Brochure Instructions:
1. Please use one sheet of unlined paper.
2. Fold your paper into thirds.
3. Include your "Cell City" name.
4. Describe the attractions of your city. These would be the organelles that people would come to visit. You will need to describe the structure and function of at least 6 organelles.
5. Include colorful hand-drawn illustrations of the attractions of your city.
6. Present highlights to the class.

*Newspaper Journalist: You will write news articles regarding "Cell City" news.

Article Instructions:
1. Please type your article(s).
2. Name your newspaper.
3. Create 4 stories about what is happening in "Cell City". Be creative. Try an eye-catching idea or headline.
   You must write at least one story for each of the following categories:
   - Editorial
   - Classified Ad
   - Human Interest
   - Entertainment
4. You must describe the structure and function of at least 6 organelles in your articles.
5. Pick one of your articles and read to the class.

*Musician/Poet: You will compose and perform a song OR compose and recite a poem.

Song Instructions:
1. Type the lyrics to your "Cell City" song using a familiar tune. Name your song.
2. You must describe the structure and function of at least 6 organelles in your song.
3. Perform your song for the class.

Poem Instructions:
1. Type the words to your "Cell City" poem.
2. You must describe the structure and function of at least 6 organelles in the poem.
3. Illustrate your poem.
4. Recite your poem for the class.
**Cell City Project: 100 points**

### Map/Model

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**Total points earned:**

### Career Day

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<td></td>
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**Total points earned:**

**Grand total:**