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Biology: _____
Date: _____

Unit IV
Biology – Cells
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IV

Cell Analogy Assignment

Now that you know the structures that are found in cells you are going to apply that knowledge. In today's assignment, read analogies for different cell functions (An analogy is a comparison between two things). For example: "The nucleus is like a brain because it controls the whole body like the nucleus controls the cell".

Analogy One – Cell City

Use the clues given in the reading to match the parts of the city (underlined) with the parts of the cell listed in the table.

Cell City Analogy

In a far away city called Grant 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 Grant 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 carpenter's union (whose headquarters are in town hall).

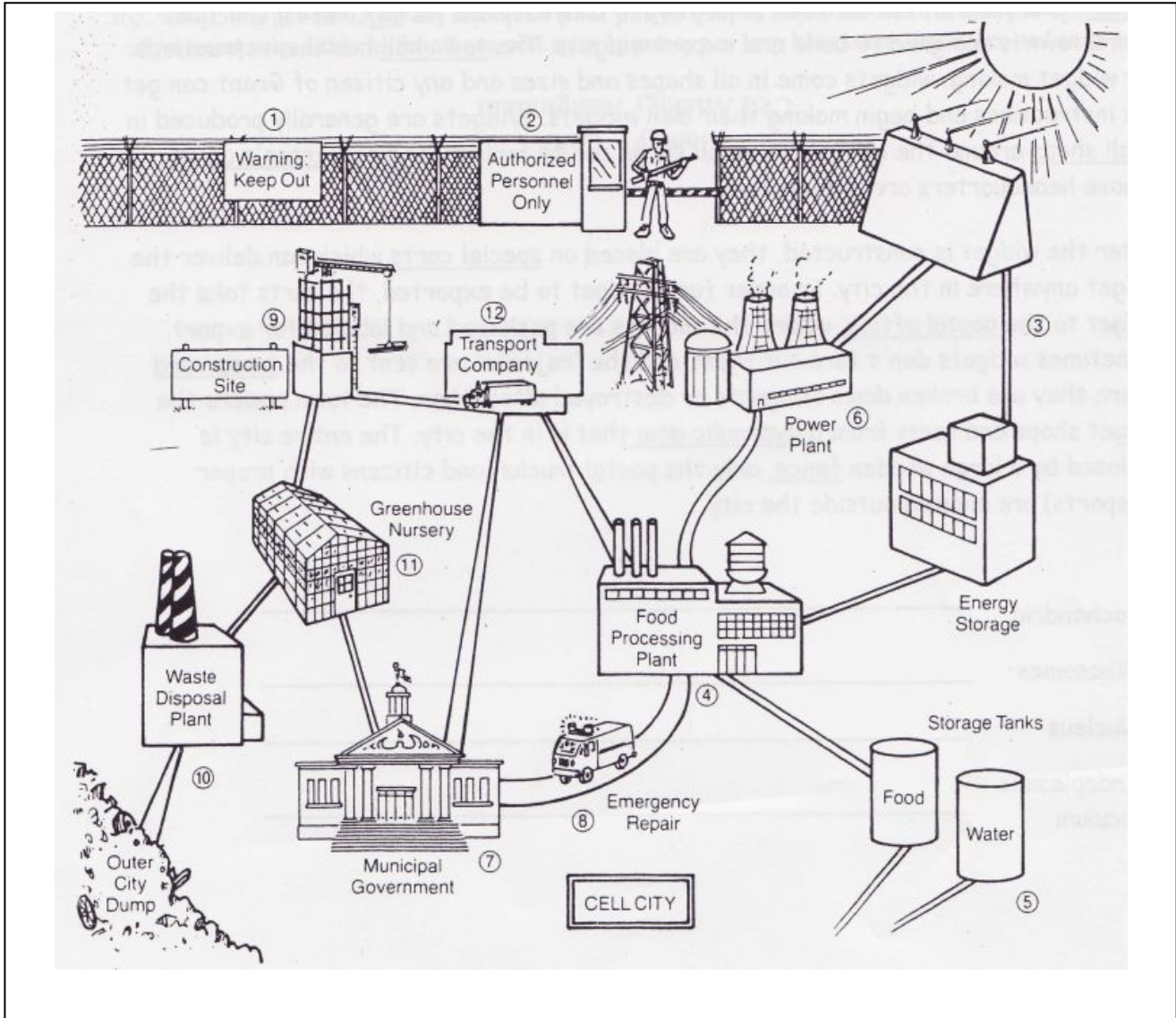
After the widgets are constructed, they are placed on special carts on tracks which can deliver the widget anywhere in the city. In order for a widget to be exported, the carts take the widget to the postal office, where the widgets are packaged and labeled for export. Sometimes widgets don't turn out 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 hydraulic dam 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.

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

Draw a sketch of your “cell city.”

Analogy Two – Cell Factory

Use the following picture to match a plant cell part with the correct function. Then describe why you choose the one that you did, in this description include the function of each of these organelles.



1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____
