

## 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 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 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.

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

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

## Create Your Own Analogy

### Instructions

Cells, the basic units of life, are often compared to a pizza parlor, a factory, or even an entire city. In this project, you will need to make analogies to compare the function of the plant cell to the part and functions of an entire city. To accomplish this, you must complete the following tasks:

**Task 1:** Create analogies between a plant cell's parts and a city's (or any analogy's) parts by completing the Cell Analogy worksheet.



A must: When making the analogies between your cell and your city (or other analogy), the *functions* of the city part and cell part must match, not the appearance!

**Task 2:** Draw a detailed model of your cell city. This drawing must be neat and turned in as final draft form! Use a ruler for your straight edges! You must label the part in the city (for example: power plant) and the cell part that's represented (for example: mitochondria).