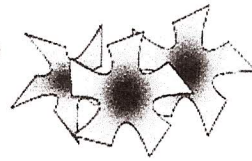


## Cell City Analogy

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 HYDRAULIC DAM
2. Ribosomes SMALL SHOPS
3. Nucleus TOWN HALL
4. Endoplasmic Reticulum SPECIAL CARTS
5. Golgi Apparatus POSTAL OFFICE
6. Protein WIDGET
7. Cell Membrane FENCE
8. Lysosomes SCRAP YARD
9. Nucleolus CARPENTER'S UNION

\*\* Create your own analogy of the cell using a different model. Some ideas might be: a school, a house, a factory, or anything you can imagine\*\*

### School

- Mitochondria - District office
- Ribosomes - Parents
- Nucleus - office
- ER - sidewalks
- Golgi App - teachers
- Proteins - students
- cell membrane - fence
- Lysosomes - Mr. Eberly
- Nucleolus - secretary