

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).



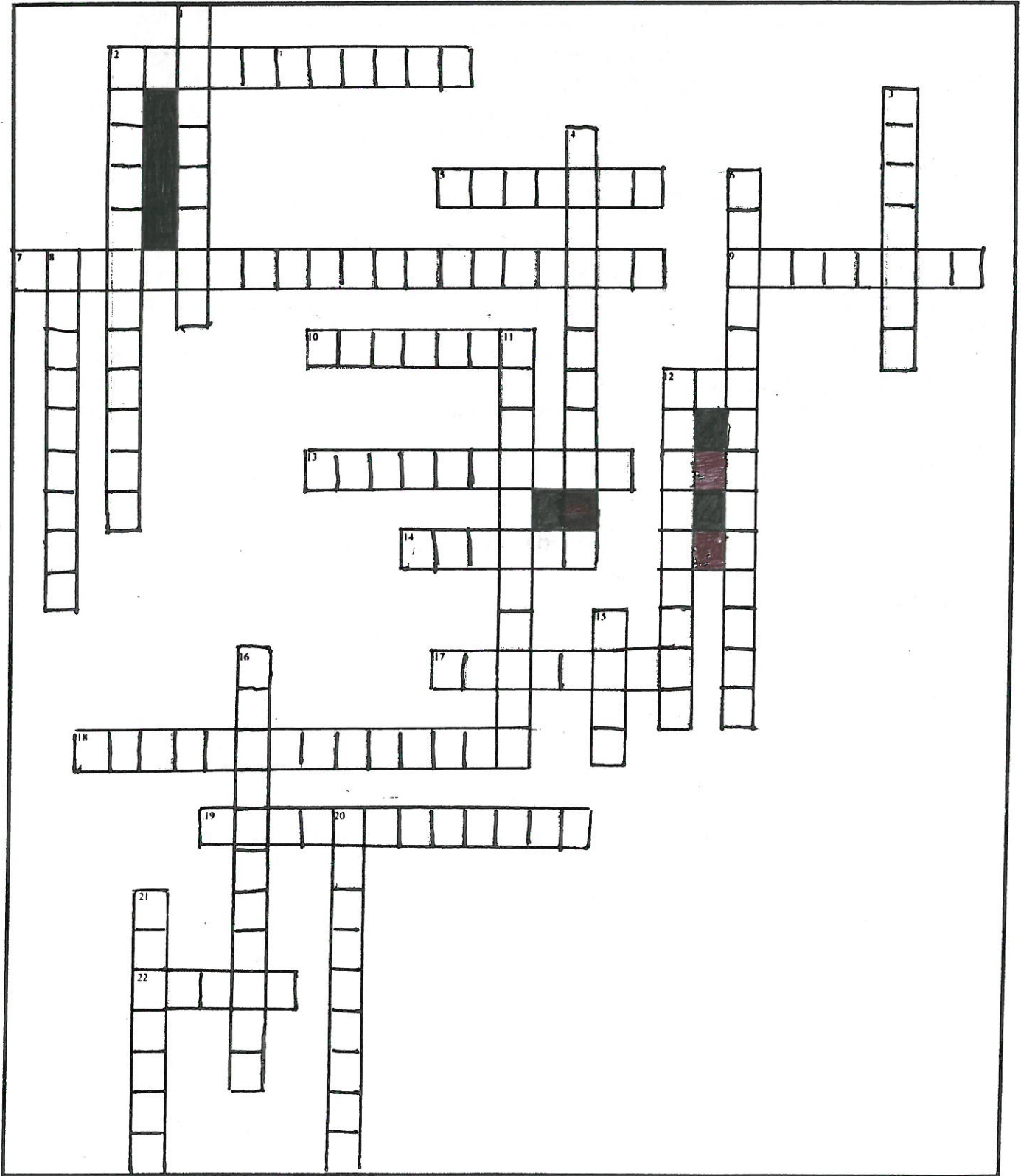
After the widget is constructed, they are placed on special carts which can deliver the widget anywhere in the city. In order for a widget to be exported, the carts take the widget to the postal office, where the widgets are packaged and labeled for export. Sometimes widgets don't turn out right, and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

CELL ORGANELLES CROSSWORD

Created by D. Colgur with EclipseCrossword by Green Eclipse Software — www.eclipsecrossword.com



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Across

2. GREEN SUBSTANCE FOUND ONLY IN PLANT CELLS
5. _____ MEMBRANE SURROUNDS THE NUCLEUS, LETTING SOME THINGS PASS THROUGH
7. (2 WORDS COMBINED INTO ONE) TRANSPORT SYSTEM FOR PROTEINS IN THE CELL.
9. ORGANELLES WHICH FUSE WITH FOOD VACUOLES AND DIGEST THE FOOD AND ALSO DIGEST AND CLEAN UP OLD ORGANELLES
10. THIS TYPE OF INFORMATION IS HELD IN THE DNA IN THE NUCLEUS
12. STANDS FOR A MOLECULE THAT BRINGS INSTRUCTIONS FROM THE DNA TO OTHER PARTS OF THE CELL
13. ORGANELLES MADE UP OF MICROTUBULES. PRODUCE SPINDLE FIBRES FOR MITOSIS
14. _____ ENDOPLASMIC RETICULUM DOES NOT CONTAIN RIBOSOMES ON THE SURFACE
17. THE CELL _____ IS A SEMI-PERMEABLE LAYER THAT ENCLOSES THE CYTOPLASM
18. THE PROCESS WHICH USES LIGHT ENERGY OF THE SUN TO PRODUCE SUGAR AND OXYGEN FROM CARBON DIOXIDE AND WATER
19. ORGANELLES IN WHICH FOOD ENERGY (SUGAR) IS CONVERTED TO ATP (ENERGY FOR THE CELL)
22. TAIL-LIKE PROJECTIONS WHICH HELP IN SENSING AND PROPULSION

Down

1. WHIP-LIKE ORGANELLES WHICH HELP PROPEL SOME CELLS AROUND
2. ORGANELLES IN WHICH CARBON DIOXIDE, WATER AND ENERGY ARE USED TO PRODUCE SUGAR AND OXYGEN
3. AN ORGANELLE USED FOR STORAGE OF WATER, NUTRIENTS OR WASTE MATERIALS
4. ONE MATERIAL FOUND IN CELL WALLS
6. (2 WORDS COMBINED INTO ONE) ORGANELLES IN WHICH PROTEINS ARE PACKAGED INTO VESICLES
8. DARK AREA IN THE CENTER OF THE NUCLEUS
11. STRUCTURES INSIDE THE NUCLEUS THAT CONTAIN DNA
12. ORGANELLES WHICH ASSEMBLE PROTEINS FROM AMINO ACIDS
15. CELL _____ GIVES RIGIDITY TO PLANT CELLS
16. REACTION IN WHICH SUGAR AND OXYGEN CONVERTS TO CARBON DIOXIDE, WATER AND ENERGY IS CELLULAR _____
20. liquid containing organelles between the cell membrane and the nucleus
21. the control center of the cell

