

A Cell is a City

Introduction

What comes to mind when you think of going to a pizza parlor? Can you smell the aroma of cheese, pepperoni, onions, or picture the employees making pizzas? Can you hear music playing in the background as well as sounds from people laughing and talking? People come in and go out, taking boxes of pizzas-to-go. What a flurry of activity!

Cells, the basic units of life, can be compared to a pizza parlor, a factory, and even an entire city. These cells are busy building and breaking down macromolecules. They are at work releasing energy from foods, and then using that energy to make needed cell parts. Together, your cells function to make your body operate like a well-run business, factory or city.

The Task

You will be working in a team that will consist of 3-4 members. Each member will be assigned a role:

- **Architect /City Planner (1)**
- **City Builders (2)**
- **Reporter (1)**

You will use the Internet to research the functions of cell organelles.

You will share your research notes with the other members of the group to make sure EVERYONE understands the information.

Using the role assigned to you, your group will work together to plan, design, and construct a 3-D "Cell City" based on your research of the organelles and what their function is.

The Process

1. Before you can construct a cell city, you must research each cell organelle to determine its function and how it works with other cell parts to function correctly.
2. Once EVERYONE in your group has researched the functions of the above organelles, get together and compare notes to make sure that you all agree on the information.
3. Now you need to decide who will assume which role for this project.

The Architect/City Planner---This individual should enjoy drawing. He/She will be drawing the plans of the city onto a sheet of paper as a reference for the City Builders. This individual will also decide the placement of organelles in the city.

The City Builders--- These two individuals will be constructing the actual city. These individuals should have access to each other after school and on weekends (if needed) to work on the city.

The Reporter--- This individual should enjoy writing. He/She will be responsible for keeping all members on task, and will be recording the process in newsletter form.

Learning Advice

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Keep the communication between all group members OPEN!! Trade telephone numbers if possible to help each other when not in class.

Help each other along during each phase of the project. If there are any concerns at all, talk to me as soon as possible.