

Explore: Cells - Structure and Function

PROCESS AND PROCEDURES

Part A - Cell Diagram “foldie”

1. Using colored pencils, color your cell diagram.
2. Carefully cut along the dashed lines to create small fold up flaps on your cell diagram. Your teacher will show you some ways to make this easier.
3. Put glue on the back of your cell diagram. Be careful to not put any glue on the backs of any of the fold up flaps. Glue your diagram into your science journal.
4. When dry, lift each flap and write the names of the cell parts in the correct places. You may use a textbook or other source as a reference or your teacher may provide or project a reference for you.
5. The following structures/organelles are included in your diagram: **mitochondrion, lysosomes, ribosomes, golgi apparatus, cytoplasm, cell membrane, smooth ER, nucleolus, nucleus, rough ER, vacuoles, cilia, flagellum, cytoskeleton, centrioles.**

Part B - Table of Cell Structures/Organelles

1. In the first column, list the fifteen structures/organelles listed in #5 of Part A above.
2. In the right-hand column, list the jobs/functions for each structure or organelle.

ANALYSIS

Write the following questions in your notebook and answer them using complete sentences.

1. How many different types of cells are there in the human body?
2. How are these cells different from each other? How are they the same?
3. Which part of the cell is responsible for taking care of the energy needs of the cell?
4. What does the smooth endoplasmic reticulum do?
5. Where do we find the DNA in the cell?
6. Name two reasons why DNA is important?
7. Plasma cells are part of your immune system, and each cell can produce millions of antibodies. Which organelle would you expect to see high numbers of in a plasma cell?