

Name _____ Date _____

Read the article. Then answer the questions that follow.

The Parts of a Cell

All living things are made of cells. There are tiny organisms made of only a single cell, and large organisms made up of hundreds of different types of cells. Humans have two hundred different types of cells, and many cells moving, working and reproducing in their body at any given time. Different cells have different roles, but most cells are made up of similar organelles.

Organelles are the tiny parts of a cell that keep it working. Animal cells have a cell membrane to control what enters and exits a cell. Inside the cell membrane is the cytoplasm, a liquid within the cell containing enzymes, fats, sugars, acids and waste. Mitochondria are the parts of the cell that provide energy for it to do what it needs to do. Lysosomes are like the digestive system of the cell; they help break down old cell parts. Ribosomes make proteins for the cell and the endoplasmic reticulum (E.R.) carry substances, particularly proteins that the cells need.

Inside the cell is a nucleus, which is in charge of the cell and controls it, similar to a brain. It is also the home of the cell's DNA, which is very important when a cell goes through mitosis cell division. A nuclear membrane surrounds the nucleus. Inside the nucleus is the nucleolus, where ribosomes are made. The Golgi bodies or Golgi apparatus package and transport materials made in the cell including hormones.

Most animal cells consist of these organelles discussed. Plant cells also have many of the same organelles, but they have three unique organelles as well. Instead of a cell membrane plants cells have a cell wall to protect the cell and provide structure. Inside the cell, chloroplasts are the part that create food and energy for the plant through photosynthesis. This process uses sunlight to create energy for the plant. The vacuoles take up a large portion of a plant cell to store water, food and waste.

Within the tiny cells that make up all living things are even tinier parts that allow a cell to do its job. Just like each cell has an important role, every organelle, or part of the cell also has an important role.

Answer each question.

1. What parts of the cell provide it with energy?
2. What are organelles?
3. How do cells prevent things from entering the cell that they don't want or need?
4. In which part of a cell does DNA belong?
5. Why are the parts of the cell important?