Lesson 7: Cell Structures

Differences in Cells

* Usually the shape of a cell is related to its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(job)
* Plant cells have a boxlike shape and animal cells do not have a particular shape
* Plant cells have some structures that animal cells do not – cell wall and chloroplasts
* A plant cell usually has one large \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and an animal cell usually has several small ones

Cell Organelles

* the parts inside a cell
* they carry out functions (jobs) inside the cell

Cell Membrane

* A thin, flexible barrier that surrounds a cell
* Controls what goes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the cell
* Protects and supports the cell

Nucleus

* “Control center of the cell” - Directs all cell activities
* Usually the easiest organelle to see under a microscope
* Cells with a nucleus (plant cells and animal cells) are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and those without a nucleus (bacteria) are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Nuclear Membrane

* Surrounds the nucleus
* Controls what goes into and out of the nucleus

Inside the Nucleus

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – structures in the nucleus made of DNA
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – long, threadlike, material that contains the instructions for everything the cell does

Cytoplasm

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ substance inside the cell
* Fills the space between all the cell parts and gives the cell its shape

Endoplasmic Reticulum

* A.k.a. “ER”
* Moves materials around the cell

Ribosome

* Smallest and most abundant organelles
* Makes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Proteins are very important for many of the cell’s activities

Golgi Apparatus

* Sends proteins to where they are needed

Lysosomes

* Break down food, cell wastes, and old, worn-out \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* These materials are recycled and used again

Mitochondria

* “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell”
* Cellular respiration occurs here to release energy for the cell to use to make materials and move them around

Vacuoles

* Storage container for water, food, and wastes
* Vacuoles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in plant cells than they are in animal cells

Cell Wall

* Found only in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and bacterial cells
* Rigid, protective barrier that protects and supports the cell
* Found outside of the cell membrane of plant and bacterial cells

Chloroplast

* Found only in plant cells
* Contains the green pigment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Where photosynthesis takes place