

Handout

Animal Cell Organelle Terminology

Use a variety of resources, such as textbooks and the internet, to research, define the following terms, and relate the terms to climate change.

Nucleus: The nucleus contains nearly all of the cell's DNA and is the control center. It controls the reproduction and all the activities of the cell. The nucleus directs protein synthesis by sending messages out to the ribosomes.

Ribosomes: Ribosomes are found free floating in the cytoplasm or found attached to the endoplasmic reticulum. Ribosomes are the site of protein synthesis.

Cell Membrane: provides protection and support to the cell and regulates what enters and exits the cell.

Rough Endoplasmic Reticulum: The rough endoplasmic reticulum has ribosomes attached to it. Newly made proteins leave the ribosome and are inserted into the spaces of the endoplasmic reticulum where they are modified and shaped into a functioning protein.

Smooth Endoplasmic Reticulum: The smooth endoplasmic reticulum has no ribosomes and the function is to make lipids that will be used in the cell membrane.

Vacuoles: Vacuoles are the storage area inside a cell. A vacuole may store water, salts, proteins, and carbohydrates.

Mitochondria: The mitochondria are the powerhouse of the cell because it completes cellular respiration, which is the process of converting glucose or sugar molecules into a usable form of energy for the cell. 100's or 1000's of mitochondria can be found in a cell!

Golgi Apparatus: Golgi apparatus receives proteins from the rough endoplasmic reticulum. The Golgi modifies, sorts, and packages the proteins that have arrived from the endoplasmic reticulum, which will either be stored inside the cell or secreted outside of the cell.

Lysosomes: Lysosomes filled with very strong digestive enzymes. Lysosomes help digest carbohydrates, proteins, and lipids into small molecules that can be used by the rest of the cell. Lysosomes are responsible for recycling the cell's own organic materials, such as destroying old organelles that can no longer carry out their function and returning them to the cytoplasm.

Brainstorming

Your task is to create an efficient code (the shortest code possible) in the *Biochemistry Animal Cell Organelle Terminology Example* Scratch program that will continue the current pattern with the remaining Animal Cell Organelle Terminology