

The Cell: Structure and Function

Vocabulary List

The following words and terms used in the program may be unfamiliar to you. Try to listen for these terms while viewing the program, pay close attention so you can later include them in your scientific descriptions, observations, and creative writing assignment activities.

Algae - any one of a wide diversity of single celled organisms.

Amino acids - an organic compound.

ATP - adenosine triphosphate.

Bacteria - a type of prokaryotic cell.

Biochemistry - a branch of chemistry that deals with plants and animals.

Carbohydrates - organic compounds such as sugars, starch and cellulose.

Carbon dioxide - a chemical element.

Carnivores - an animal that feeds only on animal tissue.

Cell division - the reproduction of a cell to produce two new cells (also called mitosis).

Cellulose - polymer of molecules used by plants for structural support.

Chloroplasts - an organelle in plants that perform photosynthesis.

Chromosomes - a structure in eukaryotic cells composed of DNA and proteins that contain the genetic information of the cell.

Compounds - substances made up of atoms of more than one element.

Cytoplasm - the contents of the cell excluding the nucleus.

DNA (deoxyribonucleic acid) - a molecule that contains hereditary material.

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Enzymes - proteins that catalyze chemical reactions in organisms.

Eukaryotic cells - cells containing their genetic material inside a nucleus; all multicellular organisms are made up of eukaryotic cells.

Fertilization - union of gametes from a male and a female.

Fossil fuels - fuels such as oil, gasoline, and coal that are composed of fossils.

Genes - hereditary information held in the DNA of cells.

Genetics - the study of heredity.

Global warming - a form of air pollution in which gases are trapped in the atmosphere, producing the Greenhouse Effect, which leads to atmospheric warming.

Glucose - a form of liquid sugar.

Golgi apparatus - an organelle in eukaryotic cells.

Greenhouse Effect - gases trapped in the atmosphere, which produces global warming.

Hereditary - passed from one generation to the next. The study of heredity is called genetics.

Meiosis - the process of sexual reproduction.

Membrane - outer skin of cells or organelles.

Microfilament - minute fibrous structures in eukaryotic cells.

Microorganisms - any microscopic organism.

Microtubules - minute tubular structures in eukaryotic cells.

Mitochondria - an organelle in eukaryotic cells whose primary function is to convert glucose into ATP that can be used as energy.

Mitosis - cell division.

Molecules - particles made up of two or more atoms.

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Vocabulary List (cont.)

Nucleoid region - the region that contains genetic material in a prokaryotic cell.

Nucleus - the largest organelle in eukaryotic cells containing the DNA.

Nutrients - food substances of various forms.

Organelles - structures found in eukaryotic cells.

Oxygen - an element.

Photosynthesis - a process carried out by green plants in which carbon dioxide, water, and sunlight are converted into ATP and glucose and releasing oxygen as a by-product.

Pore - a gap or hole in a cell membrane.

Prokaryotic cells - single celled organisms such as bacteria.

Protein - one of the most fundamental building substances of living organisms.

Ribosomes - a small organelle that is the site of protein synthesis.

Vacuole - an organelle in a plant cell that stores nutrients.