

Chapter 3 STAAR Prep Vocabulary

biodiversity: the variation among organisms

taxonomy: systematic characterization of life

super kingdom: the broadest category and includes the prokaryotes and the eukaryotes

pathogens: A bacterium, virus, or other microorganism that can cause disease.

eubacteria: A bacterium of a large group (kingdom Eubacteria) typically having simple cells with rigid cell walls and often flagella for movement.

archaebacteria: Microorganisms that are similar to bacteria in size and simplicity of structure but radically different in molecular organization.

eukaryotes: organisms made up of cells that possess a membrane-bound nucleus

chloroplast: A plastid that contains chlorophyll and in which photosynthesis takes place.

phylum: A principal taxonomic category that ranks above class and below kingdom.

orders: The arrangement or disposition of people or things in relation to each other according to a particular sequence, pattern, or method.

family: Biology A taxonomic category of related organisms ranking between a family and a genus.

genus: a class, kind, or group marked by common characteristics or by one common characteristic; specifically

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species: the major subdivision of a genus or subgenus, regarded as the basic category of biological classification, composed of related individuals that resemble one another, are able to breed among themselves, but are not able to breed with members of another species.

Carl Linnaeus: botanist that created the current system used for naming organisms.

endocytosis: process by which substances are taken into the cell.

cell wall: the definite boundary or wall that is part of the outer structure of certain cells, as a [plant cell](#).

cilia: minute hairlike organelles, identical in structure to flagella, that [line](#) the surfaces of certain cells and [beat](#) in rhythmic waves, providing locomotion to ciliate protozoans and moving liquids along internal epithelial tissue in animals.

flagella: a long, lashlike appendage serving as an organ of locomotion in some types of cells

photosynthesis: the complex process by which [carbon dioxide](#), water, and certain inorganic salts are converted into [carbohydrates](#) by green plants, [algae](#), and certain bacteria, using energy from the sun and [chlorophyll](#).

passive transport:

transport of a substance across a cell membrane by diffusion; expenditure of energy is not required

osmosis:

the tendency of a fluid, usually water, to pass through a semipermeable membrane into a solution where the solvent concentration is higher, thus equalizing the concentrations of materials on either side of the membrane.

diffusion: Also called [migration](#). an intermingling of molecules, ions, etc., resulting from [random](#) thermal agitation, as in the dispersion of a vapor in air.

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semi-permeable: [permeable](#) only to certain small molecules:

exocytosis: the transport of material out of a cell by means of a sac or vesicle that first engulfs the material and then is extruded through an opening in the cell membrane

chloroplast:

a plastid containing chlorophyll.

photosynthesis: the complex process by [which carbon dioxide](#), water, and certain inorganic salts are converted into [carbohydrates](#) by green plants, [algae](#), and certain bacteria, using energy from the sun and [chlorophyll](#).

plastid: a small, double-membraned organelle of plant cells and certain protists, occurring in several varieties, as the chloroplast, and containing ribosomes, prokaryotic DNA, and, often, pigment.

glucose: a sugar, $C_6H_{12}O_6$, having several optically different forms, the common dextrorotatory form (dextroglucose, or -glucose) occurring in many fruits, animal tissues and fluids, etc., and having a sweetness about one half that of ordinary sugar

respiration:

the sum total of the physical and chemical processes in an organism by [which](#) oxygen is conveyed to tissues and cells, and the oxidation products, [carbon dioxide](#) and water, are given off.

mitochondria: an organelle in the cytoplasm of cells that functions in energy production.

cellular respiration:

respiration: the metabolic processes whereby certain organisms obtain energy from organic molecules

ATP: [ionary.com](#) > [Science](#)

ATP definition: Short for adenosine triphosphate. An organic compound, $C_{10}H_{16}N_5O_{13}P_3$, that is composed of adenosine and three phosphate groups.

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unicellular: Consisting of a single cell.

multicellular:

consisting of many cells; "multicellular organisms".

tissues: Any of the distinct types of material of which animals or plants are made, consisting of specialized cells and their products.

organs: A group of tissues that perform a specific function or group of functions.

organ system:

In biology, a Biological system (or Organ system) is a group of organs that work together to perform a certain task