



**Biology A**  
**Unit 03 Glossary**

<b>Term</b>	<b>Definition</b>
homeostasis	The regulation of an organism's internal environment. (Unit 3, Lesson1)
receptor	gathers the information from both inside and outside an organism. (Unit 3, Lesson 1)
control center	The control center is usually the brain which gathers information from the receptors and compares the information to the organism's ideal conditions. (Unit 3, Lesson 1)
effector	React changing the activity in response to the needs of the organism. Examples include organs, tissues or systems. (Unit 3, Lesson 1)
thermoregulation	The hypothalamus is the area of the brain that controls the regulation of temperature. (Unit 3, Lesson 1)
osmotic balance	The balance of water within the cells of organisms. Water is constantly needed by our cells and if the water level is too high then water has to be transported from the cell to the external environment; consequently, if the water level is too low then water needs to be transported into the cell from its external environment. (Unit 3, Lesson 1)
negative feedback loops	In this type of feedback loop, the control center will reverse the current condition of the body either higher or lower than the set point and return the body to its normal state. (Unit 3, Lesson 1)
positive feedback loop	In this type of feedback loop, the stimulus will increase the change from the set point. An example of this is childbirth. (Unit 3, Lesson 1)
cell membrane	The thin outer membrane of cells that allows items to be moved into and out of the cell. (Unit 3, Lesson 2)
phospholipids	This part of the cell membrane has two layers composed of phosphates and lipids. Each lipid is composed of a phosphate group and a lipid. (Unit 3, Lesson 2)
amphipathic molecule	A molecule that has a positively charged end and a negatively charged end. (Unit 3, Lesson 2)
peripheral proteins	Proteins that come in contact with only with the inside or outside of the cell. (Unit 3, Lesson 2)
integral membrane proteins	Proteins that are involved with the movement of certain materials into and out of the cell. (Unit 3, Lesson 2)
protein channels	Proteins that are involved with the movement of certain materials into and out of the cell. (Unit 3, Lesson 2)
glycoproteins	The proteins composed of a carbohydrate and protein function for protection and cell communication. (Unit 3, Lesson 2)
glycolipids	This part of the cell membrane is a lipid and a carbohydrate combined, which provide energy and cellular recognition. (Unit 3, Lesson 2)
cytoskeletal filaments	These filaments provide support and cellular movement. (Unit 3, Lesson 2)
cholesterol	These structures provide fluidity in the membrane. (Unit 3, Lesson

	2)
diffusion	The movement of molecules from an area of high concentration to an area of low concentration. (Unit 3, Lesson 2)
passive transport	A type of transport that does not require energy. (Unit 3, Lesson 2)
equilibrium	A state of balance. (Unit 3, Lesson 2)
concentration gradient	The difference in the concentration of molecules across a space. (Unit 3, Lesson 2)
osmosis	The diffusion of water across a semi-permeable membrane. (Unit 3, Lesson 2)
solute	Any substance that is dissolved in water. (Unit 3, Lesson 2)
hypertonic	This solution contains a higher concentration of dissolved substances or solutes than a solution to which it is being compared. (Unit 3, Lesson 2)
isotonic	This solution contains the identical concentration of dissolved substances or solutes as the solution to which it is being compared. (Unit 3, Lesson 2)
hypotonic	This solution contains a lower concentration of dissolved substances or solutes than a solution to which it is being compared. (Unit 3, Lesson 2)
facilitated diffusion	A form of passive transport where molecules move from areas of high concentration to low concentration but require the use of a transport molecule. (Unit 3, Lesson 2)
active transport	A form of cellular transport in which substances move from low concentrations to high concentrations. This movement against the concentration gradient requires energy. (Unit 3, Lesson 2)
vesicles	A cellular unit that helps in active transport. (Unit 3, Lesson 2)
endocytosis	The process of transporting substances into the cell through a vesicle. (Unit 3, Lesson 2)
pinocytosis	The process of transporting small particles into the cell. (Unit 3, Lesson 2)
phagocytosis	The process of transporting large molecules into the cell. (Unit 3, Lesson 2)
exocytosis	This is the process that the cell uses to get rid of particles. It is the opposite of phagocytosis. (Unit 3, Lesson 2)
red blood cells	Cells that are used by the circulatory system to carry oxygen. Red cells contain hemoglobin and it is the hemoglobin which permits them to transport oxygen (and carbon dioxide). (Unit 3, Lesson 3)
ciliated epithelial cells	Epithelium consisting of columnar or cuboidal cells bearing hair-like projections (cilia) that are capable of beating rapidly. These cells perform the function of moving particles or fluid over the epithelial surface in such structures as the trachea, bronchial tubes, and nasal cavities. (Unit 3, Lesson 3)
epidermal tissue	This tissue functions in homeostasis by cooling the body through sweat and heating the body through shivering. (Unit 3, Lesson 3)
neurons	A specialized nerve cell that transmits nerve impulses. (Unit 3, Lesson 3)
sickle cell anemia	An inherited blood disorder in which there are an insufficient amount of normal red blood cells needed to transport enough oxygen in the body (Unit 3, Lesson 3)

root and shoot systems	These systems provide the vital plant functions of transport, reproduction and response. (Unit 3, Lesson 4)
roots	These plant parts provide anchor and support plants; absorb and conduct water and minerals; and store products of photosynthesis (Unit 3, Lesson 4)
stems	These plants parts provide support for and the elevation of leaves, flowers and fruits; keep the leaves in the light and provide a place for the plant to keep its flowers and fruits; and transport of fluids between the roots and the shoots in the xylem and phloem. (Unit 3, Lesson 4)
leaves	The part of the shoot system which serve as the primary food producing organ.(Unit 3, Lesson 4)
xylem	Carries water and dissolved minerals from the roots to the stems to the leaves of a plant. (Unit 3, Lesson 4)
phloem	Carries sugar and starches made during photosynthesis from one part of the plant to another. (Unit 3, Lesson 4)
root hairs	A part of the root that provides greater surface area for water absorption. (Unit 3, Lesson 4)
epidermis	The outermost layer of protective tissue found in plants.(Unit 3, Lesson 4)
stomata	These structures are found on the underside of leaves and their function is to regulate water and gases. (Unit 3, Lesson 4)
transpiration pull	As leaves lose water to the environment, transpiration and the polarity of water also help to transport the water to the leaves. This process brings water into a plant. (Unit 3, Lesson 4)
cuticle	The waxy covering of the epidermal layer is protects the epidermis from water loss. (Unit 3, Lesson 4)
guard cells	These cells that surround the stomata will either open or close the stomata based on the amount of water within a plant cell. (Unit 3, Lesson 4)