

GENETICS AND HUMAN BODY SYSTEMS VOCABULARY

GENETICS

Vocabulary Term	Meaning/Definition
characteristics	qualities of an organism
DNA	material in organisms that transfer genetic characteristics from parents to their offspring
generation	a group of individuals born and living at the same time (such as siblings)
inherited	characteristics from parents
likeness	similar or nearly the same
offspring	the young of a person, animal, or plant
organism	an individual living system such as an animal or plant
parents	animals (including humans) or plants that produce offspring
traits	distinguishing characteristics

CELLS, TISSUES, AND ORGANS

Vocabulary Term	Meaning/Definition
cell	the basic unit of life
multicellular	an organism composed of many cells
organ	part of a system that consists of cells and tissues and is specialized to do a particular task
permeable	able to pass through
tissue	similar cells with a specific function
unicellular	an organism composed of only one cell; the single cell is capable of performing all life processes

MUSCULOSKLETAL SYSTEM

Vocabulary Term	Meaning/Definition
atrophy	to waste away or decrease in size
bones	forms the substance of a skeleton; supports the body and protects the organs such as the heart and lungs
cardiac muscle	heart muscle, pumps blood throughout the body
cartilage	flexible connective tissue often found in joints, also present in nose and ears

contract	to draw together
flex	to bend
framework	support structure, i.e. skeleton
involuntary	muscle controlled without thinking about it (i.e. cardiac muscle of the heart pumping)
joints	place where two bones are joined or united to allow motion; some examples of joints include ball and socket (hip), gliding (foot, wrist), and hinge (elbow, knee, ankle)
ligaments	tissues that connect bones, hold organs in place
muscles	tissues that cause motion in the body when contracted
musculoskeletal	muscular and skeletal systems working together for movement
skeletal muscle	muscle connected to bones for movement
skeleton	a system of 206 bones that support and protect the body
smooth muscle	found in the walls of internal organs such as lungs, stomach, and blood vessels
tendons	connect muscles to bone
voluntary	muscle whose action is controlled by the person (i.e. lifting an arm)

NERVOUS SYSTEM

Vocabulary Term	Meaning/Definition
brain	the organ located in the cranium (skull) that controls mental and physical actions
nerves	bundles of fiber that carry impulses from the brain to other parts of the body
relay	the transmission of a signal
signal	messages sent from the brain to the nerves
spinal cord	cord of nerve tissue extending through the spine and protected by vertebrae
stimuli	something that causes a reaction; example: touching a hot stove, reaction: moving hand away from the hot stove (nerves in the hand sense heat and relay a signal to the brain which, in turn, relays a signal to the muscles to pull the hand away from the heat source—this all happens in a matter of milliseconds)

BLOOD CELLS

Vocabulary Term	Meaning/Definition
blood	circulates throughout the body to sustain life
cholesterol	waxy substance found in animal tissue; too much can lead to blockages and/or heart disease
plasma	the watery part of blood that contains protein and suspends blood cells
platelets	smallest blood cells that form clots if you have an injury such as a cut or a scrape
red blood cells	carry oxygen throughout the body
white blood cells	fight off infections and diseases

CIRCULATORY AND CARDIOVASCULAR SYSTEMS

Vocabulary Term	Meaning/Definition
aerobic exercise	exercise that increases the need for oxygen such as running this type of exercise builds endurance
anaerobic exercise	exercise that builds muscle through tension such as weight lifting
atrium	each of the two upper chambers on each side of the heart, receives blood from veins and forces it into the ventricles
blood vessels	any of the tubing through which blood travels and circulates throughout the body: arteries: carry blood away from the heart veins: carry blood to the heart capillaries: smallest of blood vessels
cardiac	relating to the heart; cardiac muscle is only found in the heart
circulation	flowing (such as the flow of blood throughout the body)
heart	an organ consisting of four chambers, contracts to pump blood throughout the body
heart rate/pulse	number of heartbeats counted in one minute, can be detected near the wrists and/or sides of the neck
ventricles	two lower chambers of the heart

RESPIRATORY SYSTEM

Vocabulary Term	Meaning/Definition
diaphragm	sheet-like muscle separating the chest from the abdominal (stomach) cavity, its movement creates a change in air pressure to draw air in and expand the lungs
exhale	to breathe out
inhale	to breathe in
lungs	two respiratory organs located in the chest; they are soft and protected by the ribs
nasal passages	openings in the nose that allow inhaling and exhaling
respiration	breathing, inhaling and exhaling air
trachea	windpipe, passage from the throat (pharynx) to the lungs

DIGESTIVE SYSTEM

Vocabulary Term	Meaning/Definition
digestion	processing food in a way that is useful for cells
esophagus	muscular passage between the mouth and the stomach; its rhythmic motion pushes food to the stomach
large intestine	where solid waste (stool) accumulates before being eliminated from the body
saliva	a watery fluid that aids in breaking down food into smaller particles along with chewing, keeps mouth moist
salivary glands	release saliva into the mouth
small intestine	receives food processed by the stomach, nutrients from food are absorbed into the bloodstream here
stomach	organ in the digestive system that stores and processes food