Human Body Systems Vocabulary 2015

***Directions:*** *Read and learn these terms and definitions. Think about how they apply to everyday events and how you can explain using them in everyday events.*

|  |  |
| --- | --- |
| characteristics | qualities of an organism |
| inherited | Characteristics from parents |
| likeness | Similar or nearly the same |
| organism | a n individual living system, such as an an animal or pla |
| traits | distinguishing characteristics |
| generation | a group of individuals born and living at the same time, such as siblings |
| offspring | the young of a person, animal, or plant |
| parents | animals (including humans) or plants that produce offspring |
| DNA | material in organisms that transfer genetic characteristics from parents to their offspring |
| **cell** | the basic unit of life |
| **multicellular** | an organism composed of many cells |
| **unicellular** | an organism composed of only one cell; the single cell is capable of performing all life processes |
| **permeable** | able to pass through |
| **tissue** | similar cells with a specific function |
| **organ** | part of a system that consists of cells and tissues and is specialized to do a particular task |
| **direct evidence** | evidence you collect yourself |
| **indirect evidence** | evidence you do not collect yourself, but rely on evidence collected by others |
| **fitness** | state of being healthy |
| **skepticism** | not believing everything you read or hear; asking questions and insisting on evidence |
| **bones** | forms the substance of a skeleton; support the body and protect 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 |
| **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) |
| **muscles** | tissues that cause motion in the body when contracted |
| **musculoskeletal** | muscular and skeletal systems working together for movement |
| **skeleton** | a system of 206 bones that support and protect the body |
| **skeletal muscle** | muscle connected to bones for movement |
| **smooth muscle** | found in the walls of internal organs such as lungs, stomach, and blood vessels |
| **atrophy** | to waste away or decrease in size |
| **involuntary** | muscle controlled without thinking about it such as cardiac muscle of the heart pumping |
| **voluntary** | muscle whose action is controlled by the person, such as lifting an arm |
| **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** | circulates throughout the body to sustain life |
| **cholesterol** | fatty substance found in animal tissue; too much can lead to blockages of blood vessels and/or heart disease |
| **red blood cells** | carry oxygen throughout the body |
| **white blood cells** | fight off infections and diseases |
| **platelets** | smallest blood cells which form clots if you have an injury such as a cut or scrape |
| **plasma** | the watery part of blood that contains protein and suspends blood cells |
| **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 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; pulse can be detected near the wrists and/or sides of the neck |
| **ventricles** | two lower chambers of the heart |
| **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 |
| **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 |

**Nice-to-Know Words about the Skeletal System**

|  |  |
| --- | --- |
| **cranium** | skull; protects the brain |
| **femur** | longest, largest, and strongest bone in the human body; located in the upper leg |
| **fracture** | to break or crack |
| **humerus** | long bone in the arm extending from the shoulder to the elbow |
| **immovable** | not able to be moved |
| **mandible** | jaw bone |
| **patella** | flat, moveable bone in the front of the knee; knee bone |
| **pelvis** | funnel-shaped part of the skeleton supporting lower limbs; located at the hips |
| **phalanges** | bones that make up the fingers |
| **radius** | bone of the forearm on the thumb side |
| **ribs** | subset of bones in the chest that protect the heart and lungs |
| **scapula** | shoulder blade |
| **spine** | backbone |
| **sternum** | breastbone |
| **tarsals** | bones in the feet |
| **torso** | upper part of the body |
| **ulna** | bone of the forearm, located on the side opposite the thumb |
| **vertebrae** | bones in the spine, or backbone |

**Nice-to-Know Words about the Muscular System**

|  |  |
| --- | --- |
| **bicep** | muscle at the front of the upper arm |
| **endurance** | ability or strength to continue or last without becoming tired |
| **exertion** | activity of using muscles in various ways to keep fit |
| **extend** | to increase in length |
| **involuntary** | muscle controlled without thinking about it such as cardiac muscle of the heart pumping |
| **ligaments** | tissues that connect bones, hold organs in place |
| **resistance** | exercise that involves working muscles against free weights or your own body weight (walking, running, push ups) |
| **tendon** | connect muscles to bone |
| **tricep** | muscle located at the back of the upper arm |
| **voluntary** | muscle whose action is controlled by the person, such as lifting an arm |

**Nice-to-Know Words about the Nervous System**

|  |  |
| --- | --- |
| **autonomic nervous system** | system of nerves which control involuntary functions |
| **axon** | part of a neuron that takes information away from a nerve cell |
| **brain stem** | part of the brain near the spinal cord that controls reflexes, breathing, and heart beat |
| **cerebellum** | large portion of the brain which controls voluntary motions |
| **cerebrum** | largest part of the brain which controls voluntary movements and mental actions |
| **dendrites** | part of a neuron that brings information to a cell |
| **neurons** | specialized, impulse-conducting cells which are composed of a cell body, axon, and dendrites |
| **peripheral nervous system** | lies outside the brain and spinal cord and includes nerves to arms, legs, and sense organs, such as eyes and ears |
| **spinal nerve** | nerves that start in the spinal cord and extend to various parts of the body |
| **synapse** | place where neurons come together and nerve impulses are sent by axons and received by dendrites |

**Nice-to-Know Words About the Circulatory (Cardiovascular) System**

|  |  |
| --- | --- |
| **aorta** | major artery which circulates blood from the heart to all parts of the body except the lungs |
| **pulmonary artery** | transports blood away from the heart to the lungs |

**Nice-to-Know Words About the Respiratory System**

|  |  |
| --- | --- |
| **alveoli** | very small air sacs in the lungs; where breathed-in air goes |
| **bronchial tubes** | two tubes at the end of the trachea; one tube goes to the right lung and the other goes to the left lung |
| **larynx** | voice box |
| **pharynx** | throat; collects inhaled air and passes air to the trachea |
| **sinuses** | hollow spaces in the skull; warm and moisten air that is inhaled |

**Nice-to-Know Words about the Digestive System**

|  |  |
| --- | --- |
| **anus** | where solid waste exits the body |
| **appendix** | located near the small and large intestines; its purpose is not fully understood |
| **bile duct** | stores bile, a yellow-green liquid from the liver |
| **epiglottis** | located in the back of the mouth, it prevents food and drink from entering the trachea (windpipe) when swallowing |
| **liver** | a large organ that filters blood coming from the digestive system, releases bile, and helps take toxins from chemicals in the body |
| **pancreas** | an organ about 6” long and located behind the stomach, it secretes insulin |
| **tongue** | muscular organ in the mouth; it’s functions include tasting, speaking/pronunciation, and aiding in mashing food while chewing |