

Haines - Semester Exam Study guide

Cells: Differences between plant and animal cells.

Cell: the basic unit of structure and function in living things

Cell Theory: 1. All living things are made of cells

2. Cells are the smallest unit of structure & function

3. All cells come from cells

Organelle: a tiny structure that carries out a function within a cell

Cell wall: a rigid layer that surrounds the cells of plants

Cell Membrane: controls which substances can enter or leave the cell

Nucleus: contains DNA and directs all the cell's activities

Cytoplasm: gel like substance that supports the organelles

Mitochondrion: produce most of the energy needed to carry out the cell's functions

Endoplasmic Reticulum: transports materials through the cell

Ribosome: where proteins are made

Chloroplast: captures energy from sunlight and uses it to produce food in plant cells

Vacuole: a water-filled sac inside a cell that acts as a storage area

Lysosome: breaks down food and digests old cell parts

Prokaryote: a single celled organism that does not have a nucleus or organelles

Eukaryote: an organism whose cells contain a nucleus and organelles

Multicellular: Many celled organisms

Unicellular: Organism made of one cell

Tissue: group of similar cells that work together to perform a specific function.

Organ: made up of different kinds of tissues that function together.

Organ System: A group of organs that work together to perform a major function.

Nucleolus: Located in the nucleus - makes ribosomes.

Golgi Apparatus: receives proteins and other newly formed materials.

Animal Cell: cells found in animals

Plant Cell: cells found in plants.

Respiratory System:

Breathing: the physical act of inhaling and exhaling air.

Nasal cavity: where air first enters the body, lined with mucus to keep tissues moist and to catch particles.

Pharynx: the throat

Trachea: the windpipe, leads from the pharynx to the bronchi; has rings of cartilage to keep it open.

Bronchi: two passages that split off from the trachea and lead into the lungs.

Lungs: the two main organs of the respiratory system where the alveoli are located.

Alveoli: tiny sacs of tissue where oxygen goes into the blood and carbon dioxide goes into the lungs.

Larynx: the voice box

Diaphragm: a large muscle under the lungs, contracts when you inhale and relaxes when you exhale.

Digestive system:

Stomach: An organ of the digestive system where the breaking down of food happens.

Esophagus: A muscular tube that connects the mouth to the stomach.

Large Intestine: Absorbs water and forms feces.

Mouth: Chemical Digestion begins in the mouth where food is broken down so it is able to fit down the esophagus.

Small Intestine: Long hollow tube where most absorption of nutrients occurs.

Digestive System: body system that breaks down food and absorbs nutrients.

Rectum: stores solid waste

Chemical digestion: breaking down food with enzymes

Mechanical digestion: crushing, mashing or breaking down food.

Circulatory System:

Atria: upper chambers of the heart

ventricle : lower chamber of the heart that pumps blood out of the heart

Aorta: largest artery in the body.

Vena Cava: largest vein in the body.

Arteries: carry blood away from the heart.

Capillary: A tiny blood vessel where substances are exchanged between the blood and the body cells.

Vein: a blood vessel that carries blood back to the heart

Red blood cells: carry oxygen

White blood cells: fight infection

Nervous System:

Nervous System: The body's speedy, electrochemical communication network, consisting of all the nerve cells of the peripheral and central nervous systems.

Synapse: A junction or space where information is transmitted from one neuron to the next.

Neuron: another name for nerve cell

Axon: A threadlike extension of a neuron that carries nerve impulses away from the cell body.

Dendrite: Branchlike parts of a neuron that are specialized to receive information.

Cerebrum: Area of the brain responsible for all voluntary activities of the body.

Cerebellum: part of the brain that deals with balance and coordination.

Skeletal System:

Bone: one of the main organs of the skeletal system

Joint: A place where two or more bones meet.

Immune System:

Pathogen: germs- these cause infectious diseases