

Brain Dissection 6th-12th

Vocabulary Words & Concepts

- ◆ **Arachnoid layer:** Middle layer of the meninges; a network of delicate fibers..
- ◆ **Arbor vitae (Tree of Life):** Branched white matter within the cerebellum.
- **Corpus callosum:** Band of white fibrous tissue that connects the right and left halves of the brain.
- **Cranial Nerves:** Any of the twelve pairs of nerves that arise in pairs from the brainstem.
- **Dura Matter:** Tough, fibrous layer surrounding the brain; outermost layer of the three meninges
- **Gyri:** Raised areas on the convoluted surfaces of the cerebral hemispheres.
- **Meninges:** The membranes which cover the brain.
- **Olfactory lobe:** Lower portion of the cerebral hemisphere functioning in the sense of smell.
- ◆ **Optic Nerve:** Sensory tract from the eye.
- ◆ **Pituitary gland:** An endocrine gland attached to the base of the brain; secretions from this gland control other endocrine glands and influence growth, metabolism and maturation.

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Every Breathe You Take 6th –12th

Vocabulary Words & Concepts

- ◆ **Respiratory System**: The integrated system of organs involved in the intake and exchange of oxygen and carbon dioxide between an organism and the environment.
- ◆ **Nasal Cavity**: Consists of the nose and mouth. Where respiration (breathing) begins.
- ◆ **Epiglottis**: Flap of cartilage that covers the entrance to the larynx and trachea. It acts as a gate, keeping food from going down the trachea or windpipe.
- ◆ **Larynx (voice box)**: Sits in front of your throat at the top of your trachea or windpipe and is commonly called your “Adam’s apple.”
- ◆ **Trachea (windpipe)**: The tube that air travels down to reach the lungs.
- ◆ **Aleveoli**: Airs sacs that are located at the end of the bronchioles. Gas exchange occurs here.
- ◆ **Diaphragm**: Main breathing muscle. It is a thick curved muscle that is located at the bottom of the chest cavity and moves up and down making your chest cavity smaller and larger.
- ◆ **Lungs**: Your main breathing organs.
- ◆ **Second hand smoke**: Environmental tobacco smoke that is inhaled involuntarily or passively by someone who is not smoking.
- ◆ **Cancer**: Is the name of many diseases in which cells in the body multiply without control.
- ◆ **Chronic bronchitis**: Inflammation of the tissues that lines the airways into the lungs.
- ◆ **Emphysema**: Difficulty in breathing. Your lungs are filled with delicate air sacs, tiny, soft structures surrounded by very small blood vessels.

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Eye Dissection 6th-12th

Vocabulary Words & Concepts

- ◆ **Ventral:** Front or anterior of any structure.
- ◆ **Dorsal:** The back or posterior of any structure.
- **Nerves:** Help send electrical impulses to brain.
- **Sclera:** the visible white part of the eye; a protective connective tissue coat
- **Cornea:** transparent bulge on the front of the eye; bends light as it enters
- **Iris:** the colored portion of the eye; a muscle that constricts the pupil
- **Pupil:** the black center of the iris; permits variable amounts of light into the eye
- **Lens:** focuses light onto the retina; changes shape to accommodate for near or far vision
- **Retina:** innermost layer of the eye; contains rods and cones
- ◆ **Optic Nerve:** visual pathway to the brain.
- ◆ **Aqueous humor:** A watery fluid that fills the cavity between the cornea and lens. Helps nourish the cornea and maintain the shape of the eyeball by providing an internal fluid pressure.
- ◆ **Vitreous Humor:** Jelly-like fluid that helps nourish the cornea and maintain the shape of the eyeball by providing an internal fluid pressure.

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Fetal Pig Dissection 6th-12th

Vocabulary Words & Concepts

- ♦ **Cranial:** Toward the head.
- ♦ **Caudal:** Toward the tail.
- ♦ **Dorsal:** Toward the top or backbone of a four-legged animal.
- ♦ **Ventral:** Toward the bottom or belly side of a four-legged animal.
- ♦ **Liver:** Among other things, the liver manufactures bile to aid fat digestion.
- ♦ **Stomach:** Curved bag-like structure under the left side of the liver.
- ♦ **Spleen:** Storage organ for red blood cells and a site for manufacture of white blood cells.
- ♦ **Heart:** The muscle that pumps blood received from veins into arteries throughout the body.
- ♦ **Arteries:** Blood vessels that take oxygenated blood away from the heart (the pulmonary artery is the exception to this).
- ♦ **Veins:** Blood vessels that bring deoxygenation blood into the heart (the pulmonary vein is the exception to this).
- ♦ **Kidney:** Functions to maintain proper waste and electrolyte balance, regulate acid-base concentration, and filter the blood of metabolic wastes, which are then excreted as urine.
- ♦ **Intestines:** The portion of the digestive system extending from the stomach to the anus and, in humans and other mammals, consisting of two segments, the large intestine and the small intestine.

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Body of Evidence 6th-12th

Vocabulary Words & Concepts

- ♦ **Forensics:** The use of science and technology to investigate and establish facts in criminal or civil courts of law.
- ♦ **Evidence:** Data presented to a court or jury in proof of the facts in issue and which may include the testimony of witnesses, records, documents, or objects (in this case scientific proof)
- ♦ **Crime Scene:** Where the crime took place, and where evidence can be found.
- ♦ **Fibers:** A thread or a structure or object resembling a thread.
- ♦ **Analysis:** The separation of whole into its constituent parts for individual study.

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Gene Pool 6th-12th

Vocabulary Words & Concepts

- ♦ **Heredity**: The passing of traits from parent to offspring
- ♦ **Genetics**: The study of how genes (and more specifically, alleles) affect generations of offspring
- ♦ **Alleles**: different forms a gene may have for a trait (ex. Brown allele for eye color)
- ♦ **Chromosome**: threadlike strands of DNA and protein in a cell nucleus that carry the code for the inherited characteristics of an organism
- ♦ **Trait**: Specific appearance (such as round) of a characteristic (such as face shape) - controlled by genes
- ♦ **Red Blood Cells**: Blood cells that carry oxygen.
- ♦ **Genes**: Basic biological unit of heredity. Segments of DNA.
- ♦ **Deoxyribonucleic Acid (DNA)**: One of the two types of molecules that encode genetic material.

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Heart Dissection 6th-12th

Vocabulary Words & Concepts

- ♦ **Ventral:** Front or anterior of any structure.
- ♦ **Dorsal:** The back or posterior of any structure.
- ♦ **Atrium:** Top two chambers of the heart that bring blood into the heart.
- ♦ **Ventricles:** Bottom two chambers that push blood away from the heart.
- ♦ **Superior Vena Cava:** Brings blood from the head and arms into the heart.
- ♦ **Inferior Vena Cava:** Brings blood from the torso and legs into the heart.
- ♦ **Cardiac:** Has to do with the heart.
- ♦ **Pulmonary:** Has to do with the lungs.
- ♦ **Arteries:** Carry blood away from the heart.
- ♦ **Veins:** Bring blood into the heart.
- ♦ **Aorta:** Biggest blood vessel in the body.
- ♦ **Coronary Blood Vessels:** Blood vessels that surround the heart.

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Kidney Dissection 6th-12th

Vocabulary Words & Concepts

- ◆ **Ventral:** Front or anterior of any structure.
- ◆ **Dorsal:** The back or posterior of any structure.
- ◆ **Kidneys:** A pair of organs which clear “poisons” from the blood, regulate acid concentration and maintain water balance in the body by excreting urine.
- ◆ **Bladder:** Stores the urine until it is released during urination.
- ◆ **Nephron:** Filtering unit of kidneys that removes waste products from blood.
- ◆ **Ureter:** A tube that carries urine down from the kidney to the bladder.
- ◆ **Renal:** Relating to, or in the region of the kidneys.
- ◆ **Renal Capsule:** Thin membranous sheath that covers the outer surface of each kidney.
- ◆ **Renal Pyramid:** Any of the triangular sections of tissue that constitute the medulla, or inner substance, of the kidney. The pyramids consist mainly of tubules that transport urine from the cortical, or outer, part of the kidney, where urine is produced, to the calyces, or cup-shaped cavities in which urine collects before it passes through the ureter to the bladder.
- ◆ **Renal Sinus:** The cavity of the kidney, containing the calices and the pelvis.

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Life is a Battlefield 6th-12th

Vocabulary Words & Concepts

- ♦ **Microorganism/Microbe:** An organism of microscopic or submicroscopic.
- ♦ **Pathogens:** An agent that causes disease, especially a living microorganism such as bacterium or fungus.
- ♦ **Virus:** Very small and uses the machinery inside of living cells to make copies of itself. A virus cannot replicate on it's own.
- ♦ **Bacteria:** One-celled organism that does not rely on other cells to reproduce.
- ♦ **Ringworm:** Caused by several different fungus organisms.
- ♦ **Parasitic Worm:** Type of pathogen that looks like a worm. Parasitic worms living in the soil can enter the body through the feet. They can also enter the body when a person eats infected raw meats or eggs.

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Medical Terminology 6th-12th

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Mind Your Memories 6th-12th

Vocabulary Words & Concepts

- ♦ **Memory**: The capacity to preserve and recover information..
- ♦ **Short-term Memory**: Acts kind of like a scratch pad for temporary recall of the information under process.
- ♦ **Long-term Memory**: Is intended for storage of information over a long period of time, just as the name suggests.
- ♦ **Amygdala**: Initiates memory storage and is thought to store painful and emotion-related memories.
- ♦ **Hippocampus**: Involved in storage (or transfer) of information from working to long-term memory.
- ♦ **Sensory Memory**: Registers information that enters through the sense organs.
- ♦ **Skill Memory**: Refers to learning new motor skills, especially through repetition, like tying your shoes or riding a bike.

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Owl Pellet Dissection 6th –12th

Vocabulary Words & Concepts

- ♦ **Owl Pellet**: Compact undigested parts of animals that the owl has eaten. It gets ejected from the mouth.
- ♦ **Forensics**: The use of science and technology to investigate and establish facts in criminal or civil courts of law.
- ♦ **Bones**: Make up your skeletal system and help with protection, structure, movement and more!
- ♦ **Sutures**: Special joints that connect the bones of the skull.
- ♦ **Hydrogen Peroxide**: Solution we use to allow us to take apart much.
- ♦ **Bone Types**: There are 4 different types of bones:
 - Long
 - Short
 - Irregular
 - Flat

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Rat Dissection 6th-12th

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The Balancing Act 6th-12th

Vocabulary Words & Concepts

- ◆ **Nutrition:** The study of how food affects the health and survival of the human body.
- ◆ **Carbohydrates:** Are also called starches(complex carbohydrates) and sugars (simple carbohydrates); bodies most efficient source of energy.
- ◆ **Proteins:** Are large complex molecules composed of amino acids that help strengthen your muscles.
- ◆ **Fats:** The body's major form of energy storage.
- ◆ **Saturated Fatty Acids:** Come from animal foods like meat, milk, cheese, and some oils from plants.
- ◆ **Unsaturated Fatty Acids:** come from plants and fish.
- ◆ **Vitamins:** Help with a number of things. For example, help you grow and develop, help your blood clot when you get a cut, assist with chemical reactions that take place when your body is making energy, help you see color, and much more.
- ◆ **Minerals:** Help your body grow, develop, and be healthy.
- ◆ **Water:** An essential nutrient that is involved in every function of the body. The human body is approximately 65% to 70% water.
- ◆ **Digestion:** Process of how food is broken down in our bodies.
- ◆ **GI Tract (Gastrointestinal tract or alimentary canal)** that is made up of the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum and anus.
- ◆ **Accessory structure of digestive system:** Teeth, tongue, salivary glands, liver, gall bladder, and pancreas.
- ◆ **Bolus:** Your tongue is a muscle that helps move the bite of food around during chewing and shapes the bite into a round, soft mass called a bolus.
- ◆ **Peristalsis:** An involuntary action through the movement of the smooth muscle along the GI tract.

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