

ANATOMY 1

LEARNING TARGETS

ORGANIZATION OF THE BODY

Upon completion of this unit, the student will be able to:

Huh??	Pretty good	Got it!!	Learning Target:
			1. Define "anatomy" and "physiology."
			2. Describe homeostasis.
			3. Identify examples of homeostasis
			4. Describe the organization of the body according to these structural units: A. cells. B. tissues. C. organs. D. systems. E. organism.
			5. Identify the three (3) main parts of the cell and give the functions of each.
			6. Identify the location for the DNA, gene, chromosome, RNA, organelles, mitochondria, and protoplasm within the cell.
			7. List the seven (7) activities of the cell and be able to compare the individual cell activities to man's physiological activities.
			8. Identify the four (4) main tissues within the body, their types, and main functions.
			9. Define "membrane" and give the location for each of the following membranes: A. mucous membrane. B. serous membrane. C. cutaneous membrane.
			10. Identify the nine (9) systems of the body and recall main structures and the function of each.
			11. Distinguish between the cranial, spinal, thoracic, and abdominopelvic cavities as to location and organs found within.
			12. Define and locate the planes of the body: A. sagittal. B. frontal. C. transverse.
			13. Utilize the following terms that relate to the human body and be able to recognize examples of each. A. superior B. inferior C. anterior or ventral D. posterior or dorsal E. medial F. lateral G. proximal H. distal I. supine J. prone K. central L. peripheral M. external N. internal

		<p>14. Locate the quadrants of the abdomen:</p> <ul style="list-style-type: none"> A. RUQ. B. LUQ. C. RLQ. D. LLQ.
		<p>15. Locate the nine (9) regions of the abdominopelvic area:</p> <ul style="list-style-type: none"> A. right hypochondriac. B. epigastric. C. left hypochondriac. D. umbilical. E. right lumbar. F. left lumbar. G. right inguinal (iliac). H. hypogastric. I. left inguinal (iliac).
		<p>16. Recognize the largest organ of the body, the skin, as the first line of the defense against illness and injury.</p>
		<p>17. List and explain the four (4) main functions of the skin.</p>
		<p>18. Distinguish between the "dermis" and "epidermis" layers of the skin as to the location of:</p> <ul style="list-style-type: none"> A. nerve endings. B. sweat glands. C. hair follicles. D. blood vessels. E. oil glands. F. dead cells. G. finger prints. H. pigmentation.
		<p>19. Identify the function of each of the following appendages of the skin:</p> <ul style="list-style-type: none"> A. sweat glands. B. sebaceous glands. C. hair. D. nails.

DIGESTIVE SYSTEM

Upon completion of this unit, the student will be able to:

Huh??	Pretty good	Got it!!	Learning Target:
			1. Describe the three (3) main functions of the digestive system.
			2. Recall the six (6) nutrients needed by the body.
			3. Locate the organs of digestion (alimentary canal) by using charts, diagrams, and models: <ul style="list-style-type: none"> A. mouth (accessory structures). B. esophagus. C. stomach (sphincters and fundus). D. small intestine and its parts. E. large intestine and its parts.
			4. Locate the accessory organs of digestion by using charts, diagrams, and models: <ul style="list-style-type: none"> A. liver. B. gallbladder. C. pancreas (duct).
			5. Identify the functions of each of the following accessory organs of digestion: <ul style="list-style-type: none"> A. liver (at least 4). B. gallbladder. C. pancreas (duct).
			6. Name the organs of digestion, in order, and describe their individual functions.
			7. Describe <u>chemical digestion</u> as to the action that takes place in the: <ul style="list-style-type: none"> A. mouth. B. stomach. C. small intestine. D. large intestine.
			8. Identify where digestion begins for each of the following nutrients: <ul style="list-style-type: none"> A. carbohydrates. B. fats. C. proteins.
			9. Identify the nutrient affected by the following enzymes and digestive juices: <ul style="list-style-type: none"> A. ptyalin (amylase). B. gastric juice (hydrochloric acid and pepsin). C. bile. D. pancreatic juice (trypsin, amylase, lipase).
			10. Name the end product of each of the following as absorption takes place in the small intestine: <ul style="list-style-type: none"> A. carbohydrates. B. fats. C. proteins.
			11. Differentiate between "mechanical" and "chemical" digestion.
			12. Differentiate between "anabolism" and "catabolism" and identify their relationship to metabolism.

URINARY SYSTEM

Upon completion of this unit, the student will be able to:

Huh??	Pretty good	Got it!!	Learning Target:
			1. Name the five (5) organs of the body that function to remove waste products of cell metabolism.
			2. Locate and describe the functions of the organs of the urinary system: A. kidneys B. ureter. C. urinary bladder. D. urethra.
			3. Identify the parts of a kidney using a diagram. A. cortex B. medulla C. pelvis D. blood supply 4. Renal artery 5. Renal vein 6. Nephron
			7. Identify the three (3) functions of the nephron according to these structures: A. glomerulus. B. Bowman's capsule. C. proximal and distal tubules. D. collecting tubules.
			8. Distinguish between "normal" and "abnormal" urine constituents.
			9. Describe normal characteristics of urine as to: A. appearance. B. odor. C. specific gravity. D. reaction. E. amount.
			10. Compare the length of the male and female urethra.
			11. Identify two (2) major functions of the urinary system.

RESPIRATORY SYSTEM

Upon completion of this unit, the student will be able to:

Huh??	Pretty good	Got it!!	Learning Target:
			1. Recognize the importance of oxygen to human survival.
			2. Locate and give the function for each of the following using diagrams, models, or the human torso. A. nose B. pharynx C. larynx D. epiglottis E. trachea F. bronchi G. bronchioles H. alveoli I. lungs J. pleura; pleural space K. diaphragm L. intercostal muscles M. sinuses N. cilia
			3. Differentiate between "internal" and "external" respiration.
			4. Describe the mechanism of respiration as to: A. inspiration and expiration. B. the contraction and relaxation of the diaphragm and intercostal muscles. C. the size of the chest wall. D. how air is taken in and forced out.
			5. Discuss the control of respiration as it relates to the will, the nerves, and the chemical stimulant.

MUSCULOSKELETAL SYSTEM

Upon completion of this unit, the student will be able to:

Huh??	Pretty good	Got it!!	Learning Target:
			1. Describe the location and function of the following parts of the long bone: A. epiphysis. B. diaphysis. C. periosteum. D. marrow. E. articular surface.
			2. Locate and describe the cranial bones using models, diagrams, skeletons, and charts: A. frontal. B. occipital. C. parietal. D. temporal–mastoid process. E. sphenoid.
			3. Locate the following facial bones using models, diagrams, skeletons, and charts: A. mandible. B. nasal. C. maxilla. D. zygoma
			4. Identify the location and number of bones in the vertebral column using models, diagrams, skeletons, and charts: A. cervical – atlas and axis – 7. B. thoracic – 12. C. lumbar – 5. D. sacrum – 5 in child – 1 in adult. E. coccyx - 5 in child – 1 in adult.
			5. Identify the bones of the thorax: A. true ribs – 7 pair. B. false ribs – 3 pair. C. floating ribs – 2 pair. D. sternum (xiphoid process).
			6. Identify the bones of the upper extremities: A. clavicle – collar bone. B. scapula – shoulder blade. C. humerus – upper arm bone. D. radius – lower arm bone – thumb side. E. ulna – lower arm bone – little finger side. F. carpals. G. metacarpals – hand bones. H. phalanges – finger bones.
			7. Identify the bones of the lower extremities: A. pelvic (ilium, iliac crest, symphysis pubis, acetabulum). B. femur – greater and lesser trochanter. C. tibia – shinbone. D. fibula. E. patella – kneecap. F. tarsals. G. metatarsals – foot bones. H. phalanges – toe bones.
			8. Differentiate between the male and female pelvis.

		<p>9. Identify the following types of joints and movement and give an example of each:</p> <ul style="list-style-type: none"> A. hinge (flexion and extension). B. ball and socket (freedom of movement). C. pivot (rotation). D. gliding (one bone glides across another). E. immovable. F. slightly movable.
		10. Discuss the five (5) functions of the skeletal system.
		<p>11. Give an example of the types of bones:</p> <ul style="list-style-type: none"> A. long. B. short. C. flat. D. irregular. E. sesamoid.
		12. Name two (2) minerals and one (1) vitamin essential for strong bones.
		13. List the three (3) functions of the muscular system.
		14. List and define the five (5) characteristics of muscle tissue.
		15. Identify the three (3) types of muscle tissue and the control of each by the nervous system.
		<p>16. Identify the following skeletal muscles on charts, diagrams, and the human torso:</p> <ul style="list-style-type: none"> A. movement of head – holds head erect sternocleidomastoid B. movement of chest – breathing intercostal muscles – attached to cartilage of ribs diaphragm C. movement of the upper arm pectoralis major – flexes arm across chest latissimus dorsi – adducts upper arm deltoid – abducts arm D. movement of shoulder trapezius E. movement of the lower arm biceps brachii – flexes forearm triceps brachii – extends forearm F. muscles that support the abdomen internal and external oblique rectus abdominus transversalis G. movement of thigh quadriceps femoris group – <u>helps</u> flex thigh gluteus maximus – extension of thigh H. movement of lower leg quadriceps of the lower leg hamstrings – flexes lower leg I. movement of foot gastrocnemius – extends foot (plantar flexes) tibialis anterior – flexes foot (dorsi flexes)
		<p>17. Recall the following types of joint movement:</p> <ul style="list-style-type: none"> A. Flexion/Extension B. Abduction/Adduction C. Rotation/circumduction