ANATOMY 2
LEARNING TARGETS

NERVOUS SYSTEM

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Distinguish between the parts of the central nervous system and the peripheral nervous system.
			2. Identify the neuron as the basic structural and functional unit of the nervous system.
			3. Distinguish between the function of a dendrite and an axon.
			4. Distinguish between a sensory and motor neuron.
			5. Name the four (4) "protectors" of the central nervous system and give the functions of each.
			6. Locate the following regions of the brain using charts, diagrams, and models: A. cerebrum B. cerebellum C. midbrain D. pons E. medulla
			7. Give two (2) functions of each of the following: A. cerebrum B. cerebellum C. medulla D. hypothalamus
			8. Describe the spinal cavity as to the following: A. where the spinal cord ends. B. meninges. C. cerebrospinal fluid.
			9. Identify the two (2) functions of the spinal cord.
			10. Name the three (3) layers of the meninges.
			11. Describe a simple reflex action.
			12. Identify the parts of the peripheral nervous system.
			13. Explain the main function of the autonomic nervous system.
			14. Distinguish between the sympathetic and parasympathetic divisions of the autonomic nervous system.
			15. Name the senses associated with the cranial nerves.
			16. Identify the total number of cranial nerves and give the function of each of the following: A. olfactory B. optic C. auditory D. vagus
			17. Identify the total number of spinal nerves that originated from the spinal cord.
			18. Identify the main function of the peripheral nerves.

ENDOCRINE SYSTEM

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Name two (2) functions of the endocrine system.
			2. Discuss the interrelationships of the endocrine and nervous system.
			3. Describe hormones and how they function.
			4. List and be able to locate the endocrine glands known to secrete hormones: A. pituitary B. thyroid C. parathyroid D. adrenal E. Islet Cells of Pancreas F. gonads
			5. Name the hormone or hormones secreted by each of the following and identify their main function. A. pituitary B. thyroid C. parathyroid D. adrenal E. Islet Cells of Pancreas F. gonads
			6. Name and locate the endocrine glands about which little is known: A. Thymus B. pineal body
			7. Explain negative feedback system.

CIRCULATORY SYSTEM

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Identify the five (5) major functions of the circulatory system.
			2. Name the three (3) formed elements of blood (cells) and give the functions of each.
			3. Identify the three (3) main constituents of plasma and explain why it can be given without a type and crossmatch.
			4. Name the five (5) essential substances needed for the blood clotting mechanism.
			5. Give the normal range for red blood cells, white blood cells, and hemoglobin.
			6. List the four (4) types and discuss the importance of the type and crossmatch prior to the blood transfusion.

CIRCULATORY SYSTEM: The Heart

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Name the four (4) chambers of the heart.
			2. Identify the three (3) layers of the heart. A. endocardium B. myocardium C. pericardium
			3. Name the four (4) great vessels of the heart and identify the source and destination of the flow of blood.
			4. Trace the flow of blood as it circulates through the heart, beginning with the vena cava and ending with the aorta: A. right heart pump 1. inferior and superior vena cava 2. right atrium 3. tricuspid valve 4. right ventricle 5. semilunar valve 6. pulmonary artery 7. lungs B. left heart pump 1. pulmonary veins 2. left atrium 3. bicuspid or mitral valve 4. left ventricle 5. semilunar valve 6. aorta 7. coronary arteries 8. body
			5. Discuss the origin of the heartbeat.
			6. Explain the influence of the nervous system upon regulation of the heartbeat.
			7. Describe briefly the conduction of electrical impulses that cause the heartbeat: A. S.A. Node (pacemaker) B. A.V. Node C. Bundle of His D. fibers E. contraction of ventricles
			8. Explain what is happening with the heart according to the "lub-dub" sounds.

CIRCULATORY SYSTEM: The Vessels

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Describe the structure and function of each of the following blood vessels: A. arteries B. veins C. capillaries
			2. Distinguish between the blood vessels of the distribution and collection routes.
			3. Describe briefly the special names given to the blood circulation of various parts of the body: A. systemic circulation B. coronary circulation C. pulmonary circulation D. portal circulation E. cerebral circulation F. renal circulation
			4. Locate the following major arteries of the body by using charts, diagrams, and models: A. ascending aorta B. descending aorta C. common carotid D. temporal E. brachial F. radial G. femoral H. popliteal I. dorsalis pedis
			5. Locate the following major veins of the body by using charts, diagrams, and models: A. superior vena cava B. inferior vena cava C. jugular D. great saphenous E. basilic

CIRCULATORY SYSTEM: Lymphatic System

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Identify the four (4) functions of the lymphatic system.
			2. Identify the function of each of the following: A. lymphatic vessels B. lymph nodes (glands) C. lymphatic ducts D. lymph
			3. Locate the spleen and identify its function.
			4. Locate the areas of the "lymph nodes" or "lymph glands."

HUMAN REPRODUCTION: Male Reproductive System

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Locate and identify the functions for each of the following using diagrams, models or the human torso: A. external genitalia 1. scrotum 2. penis B. gonads (testes) C. ducts of male reproductive system 1. epididymis (2) 2. vas deferens (2) 3. ejaculatory duct (2) 4. urethra (1) D. accessory structures 1. seminal vesicle (2) 2. bulbourethral glands (2) 3. prostate gland (1) 2. Trace the flow of sperm from the testes to the urethra.
			3. Explain the function of the male hormone "testosterone."

HUMAN REPRODUCTION: Female Reproductive System

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Locate and identify the functions for each of the following using diagrams, models or the human torso: A. external genitalia (vulva) B. gonads (ovaries) C. internal organs 1. fallopian tubes 2. uterus 3. vagina D. accessory structures 1. breasts (2) 2. Bartholin glands (2)
			2. Explain the menstrual cycle.
			3. Explain the role of the pituitary gland in the production of the male and female sex hormones.
			4. Identify the functions of the female hormones: A. estrogen B. progesterone
			5. Trace the route of an unfertilized ovum from the ovary to the vagina.

HUMAN REPRODUCTION: Conception

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Explain how the sex of a new life is determined.
			2. Identify how certain characteristics (traits) are passed from parents to offspring.
			3. Discuss briefly the development of a new life.
			4. Discuss at least five (5) factors that affect the fertility of the male and female.

SENSE ORGANS: The Eye

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Identify the following structure of the eye: A. Iris B. Pupil C. Lens D. aqueous humor E. vitreous humor F. optic nerve G. conjunctiva
			2. Identify and list the function of the three (3) layers of tissue that form the eyeball: A. sclera and cornea B. choroid C. retina
			3. List the function of the following structures of the eye: A. Iris B. Pupil C. Conjunctiva D. Lens E. aqueous humor F. vitreous humor G. optic nerve H. ciliary muscle I. cornea J. lacrimal glands and ducts
			4. Describe the flow of aqueous humor and identify the condition that is caused by its disruption.
			5. Name the vitamin that prevents night blindness.
			6. Explain the process of vision.

SENSE ORGANS: The Ear

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

Huh??	Pretty Good	Got it!!	Learning Target:
			1. Identify the following structures of the ear: A. external ear 1. auditory canal 2. tympanic membrane (eardrum) 3. pinna B. middle ear 1. malleus (hammer) 2. incus (anvil) 3. stapes (stirrup) C. oval window 1. Eustachian tube D. inner ear 1. cochlea 2. semicircular canals 3. vestibule 4. auditory nerve (acoustic) E. organ of Corti
			2. List the functions of the three (3) parts of the ear: A. external ear B. middle ear C. inner ear
			3. Explain the disadvantage of having the nasopharynx connected to the middle ear by way of the Eustachian tube.
			4. Name the fluid found in the inner ear.
			5. Explain the process of hearing.