

TIME FRAME (month or week)	CONTENT	SKILLS	STANDARD(s)
September	1. Introduction to Human Anatomy & Physiology	1.01 Define Anatomy and Physiology and describe their relationship	3.3.12.A, 3.3.12.B
		1.02 List and describe the major characteristics of life	3.3.12.A, 3.3.12.B
		1.03 List and describe the major requirements of organisms	3.3.12.A, 3.3.12.B
		1.04 Define homeostasis and explain its importance to survival	3.3.12.A, 3.3.12.B
		1.05 Sequence and explain biological levels of organization	3.3.12.A, 3.3.12.B
		1.06 Describe the location of the major body cavities	3.3.12.A, 3.3.12.B
		1.07 List the organs located in each of the major body cavities	3.3.12.A, 3.3.12.B
		1.08 Name the major organ systems, their major functions, and the organs associated with each	3.3.12.A, 3.3.12.B
		1.09 Properly use terms that describe relative positions, body sections and body regions	3.3.12.A, 3.3.12.B
September	2. Tissues	2.01 List the four major tissue types and examples of each	3.3.12.A, 3.3.12.B
		2.02 Describe the general characteristics and functions of epithelial tissues	3.3.12.A, 3.3.12.B
		2.03 Name and identify each specific type of epithelium	3.3.12.A, 3.3.12.B
		2.04 Name and identify each specific type of connective tissue	3.3.12.A, 3.3.12.B
		2.05 Describe the major functions of connective tissue	3.3.12.A, 3.3.12.B
		2.06 Name and identify each specific type of muscle tissue	3.3.12.A, 3.3.12.B
		2.07 Describe the major functions of muscle tissue	3.3.12.A, 3.3.12.B
		2.08 Identify nervous tissue	3.3.12.A, 3.3.12.B
		2.09 Describe the major functions of nervous tissue	3.3.12.A, 3.3.12.B
October	3. The Skeletal System	3.01 Describe the general structure of a bone and list the functions of its parts	3.3.12.A, 3.3.12.B
		3.02 Describe bone development and growth	3.3.12.A, 3.3.12.B
		3.03 Discuss the major functions of bones	3.3.12.A, 3.3.12.B
		3.04 Distinguish between the axial and appendicular skeletons	3.3.12.A, 3.3.12.B
		3.05 Locate and identify the bones and major features of bones located in the human skeleton	3.3.12.A, 3.3.12.B
		3.06 List the three classes of joints and give an example of each	3.3.12.A, 3.3.12.B
		3.07 List the six types of synovial joints and their actions	3.3.12.A, 3.3.12.B
November	4. The Muscular System	4.01 Describe how connective tissue is a part of skeletal muscle	3.3.12.A, 3.3.12.B
		4.02 Name the major parts of a skeletal muscle fiber and the functions of each	3.3.12.A, 3.3.12.B
		4.03 Explain the major events of skeletal muscle fiber contraction	3.3.12.A, 3.3.12.B
		4.04 Explain how energy is obtained for muscle contraction	3.3.12.A, 3.3.12.B
		4.05 Describe oxygen debt and muscle fatigue	3.3.12.A, 3.3.12.B
		4.06 Explain threshold and all-or-none response	3.3.12.A, 3.3.12.B
		4.07 Describe how skeletal muscle actions are possible	3.3.12.A, 3.3.12.B
		4.08 Locate and identify major skeletal muscles in the human body	3.3.12.A, 3.3.12.B

December	5. The Nervous System	5.01 Distinguish between the two types of cells that compose nervous tissue and their functions	3.3.12.A, 3.3.12.B
		5.02 Name the two major groups of nervous system organs	3.3.12.A, 3.3.12.B
		5.03 Describe and identify the general structure of a neuron	3.3.12.A, 3.3.12.B
		5.04 Explain how differences in structure are used to classify neurons	3.3.12.A, 3.3.12.B
		5.05 Describe and sequence the events that lead to a nerve impulse	3.3.12.A, 3.3.12.B
		5.06 Explain how information passes from one neuron to another	3.3.12.A, 3.3.12.B
		5.07 Identify the parts of a reflex arc and the functions of each part	3.3.12.A, 3.3.12.B
		5.08 Identify the coverings of the brain and spinal cord	3.3.12.A, 3.3.12.B
		5.09 Describe the structure of the spinal cord and its major functions	3.3.12.A, 3.3.12.B
		5.10 Identify and name the major parts and functions of the brain	3.3.12.A, 3.3.12.B
		5.11 Name the cranial nerves and their major functions	3.3.12.A, 3.3.12.B
		5.12 Name the two divisions of the Peripheral Nervous System	3.3.12.A, 3.3.12.B
January-February	6. Somatic and Special Senses	6.01 Distinguish between somatic and special senses	3.3.12.A, 3.3.12.B
		6.02 Name five kinds of receptors and explain their functions	3.3.12.A, 3.3.12.B
		6.03 Explain how a sensation arises	3.3.12.A, 3.3.12.B
		6.04 Describe the receptors associated with touch, pressure, temperature and pain	3.3.12.A, 3.3.12.B
		6.05 Identify the location of the receptors associated with the special senses	3.3.12.A, 3.3.12.B
		6.06 Describe the olfactory pathway that produces the sense of smell	3.3.12.A, 3.3.12.B
		6.07 Describe the gustatory pathway that produces the sense of taste	3.3.12.A, 3.3.12.B
		6.08 Identify the parts of the ear and their functions	3.3.12.A, 3.3.12.B
		6.09 Describe the auditory pathway that produces the sense of hearing	3.3.12.A, 3.3.12.B
		6.10 Distinguish between static and dynamic equilibrium	3.3.12.A, 3.3.12.B
		6.11 Identify the parts of the eye and the function of each part	3.3.12.A, 3.3.12.B
		6.12 Describe the visual pathway that produces the sense of sight	3.3.12.A, 3.3.12.B
February	7. Blood	7.01 Describe the major components of blood and its major functions	3.3.12.A, 3.3.12.B
		7.02 Explain the control of red blood cell production	3.3.12.A, 3.3.12.B
		7.03 Identify red blood cells, white blood cells and platelets	3.3.12.A, 3.3.12.B
		7.04 List the major components of blood plasma and their functions	3.3.12.A, 3.3.12.B
		7.05 Define hemostasis and explain how it is achieved	3.3.12.A, 3.3.12.B
		7.06 List the major steps in blood coagulation	3.3.12.A, 3.3.12.B
		7.07 Explain blood typing and how it is used to avoid adverse reactions during blood transfusions	3.3.12.A, 3.3.12.B
		7.08 Describe rH compatibility between mother and baby	3.3.12.A, 3.3.12.B

March-April	8. The Cardiovascular System	8.01 Name the organs of the cardiovascular system and discuss their functions	3.3.12.A, 3.3.12.B
		8.02 Identify and describe the locations and functions of the major parts of the heart	3.3.12.A, 3.3.12.B
		8.03 Trace the pathway of blood through the heart, pulmonary and systemic circulation	3.3.12.A, 3.3.12.B
		8.04 Describe the cardiac cycle and relate it to the patterns on an ECG	3.3.12.A, 3.3.12.B
		8.05 Compare the structures and functions of the major types of blood vessels	3.3.12.A, 3.3.12.B
		8.06 Describe how substances are exchanged between capillaries and surrounding tissues	3.3.12.A, 3.3.12.B
		8.07 Explain how blood pressure is produced	3.3.12.A, 3.3.12.B
		8.08 Identify and locate the major arteries and veins in humans	3.3.12.A, 3.3.12.B
April-May	9. The Digestive System	9.01 Describe the general functions of the digestive system	3.3.12.A, 3.3.12.B
		9.02 Identify and locate the major organs of the digestive system	3.3.12.A, 3.3.12.B
		9.03 Describe the structure of the wall of the alimentary canal	3.3.12.A, 3.3.12.B
		9.04 Explain how contents of the alimentary canal are mixed and moved	3.3.12.A, 3.3.12.B
		9.05 Identify the structures of the mouth and their functions	3.3.12.A, 3.3.12.B
		9.06 Describe how different types of teeth are adapted for different functions	3.3.12.A, 3.3.12.B
		9.07 List the enzymes the digestive organs and glands secrete and the functions of each	3.3.12.A, 3.3.12.B
		9.08 Describe how digestive secretions are regulated	3.3.12.A, 3.3.12.B
		9.09 Explain how the products of digestion are absorbed	3.3.12.A, 3.3.12.B
		9.10 Describe the defecation reflex	3.3.12.A, 3.3.12.B
May	10. The Respiratory System	10.01 List the general functions of the respiratory system	3.3.12.A, 3.3.12.B
		10.02 Identify and locate the major organs and features of the respiratory system	3.3.12.A, 3.3.12.B
		10.03 Describe the functions of each organ of the respiratory system	3.3.12.A, 3.3.12.B
		10.04 Explain the mechanisms of inspiration and expiration	3.3.12.A, 3.3.12.B
		10.05 Name and define some of the lung volumes and respiratory capacities	3.3.12.A, 3.3.12.B
		10.06 Locate the respiratory center and describe how it controls breathing	3.3.12.A, 3.3.12.B
		10.07 Describe the structure and function of the respiratory membrane	3.3.12.A, 3.3.12.B
		10.08 Explain how air, blood and tissues exchange gases and how these gases are transported	3.3.12.A, 3.3.12.B
May	11. The Urinary System	11.01 Name and list the general function of the organs of the urinary system	3.3.12.A, 3.3.12.B
		11.02 Describe the location and identify the major parts of the kidneys	3.3.12.A, 3.3.12.B
		11.03 List the functions of the kidneys	3.3.12.A, 3.3.12.B
		11.04 Trace the pathway of blood through the major parts of the kidney	3.3.12.A, 3.3.12.B

DEPARTMENT _____
COURSE _____

SHAMOKIN AREA SCHOOL DISTRICT
MAPPING

GRADE(s) _____

	11.05 Describe a nephron and its major parts	3.3.12.A, 3.3.12.B
	11.06 Explain how glomerular filtrate is formed and regulated	3.3.12.A, 3.3.12.B
	11.07 Describe the role of tubular reabsorption and secretion in urine formation	3.3.12.A, 3.3.12.B
	11.08 Identify the ureters, bladder and urethra and the functions of each part	3.3.12.A, 3.3.12.B
	11.09 Explain the process and control of micturition	3.3.12.A, 3.3.12.B