Flagler County Anatomy & Physiology Honors
2025-2026 Scope and Sequence

Year at a glance: Please note that the map is based on a 180-day schedule.

Quarter 1: August 11, 2025- October 10, 2025	
Topics	Benchmark/ Standards
Introduction to Human Anatomy Tissues Integumentary System Skeletal System	SC.912.N.1.1: Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following: Pose questions about the natural world, (Articulate the purpose of the investigation and identify the relevant scientific concepts). Conduct systematic observations, (Write procedures that are clear and replicable. Identify observables and examine relationships between test (independent) variable and outcome (dependent) variable. Employ appropriate methods for accurate and consistent observations; conduct and record measurements at appropriate levels of precision. Follow safety guidelines). Examine books and other sources of information to see what is already known, Review what is known in light of empirical evidence, (Examine whether available empirical evidence can be interpreted in terms of existing knowledge and models, and if not, modify or develop new models). Plan investigations, (Design and evaluate a scientific investigation). Use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs), (Collect data or evidence in an organized way. Properly use instruments, equipment, and materials (e.g., scales, probeware, meter sticks, microscopes, computers) including set-up, calibration, technique, maintenance, and storage). Pose answers, explanations, or descriptions of events, Generate explanations that explicate or describe natural phenomena (inferences), Use appropriate evidence and reasoning to justify these explanations to others, Communicate results of scientific investigations, and Evaluate the merits of the explanations produced by others. SC.912.L.14.11: Classify and state the defining characteristics of epithelial tissue, connective tissue, muscle tissue, and nervous tissue. "SC.912.L.14.51: Describe the function of the vertebrate integumentary system. SC.912.L.16.8: Explain the relationship between mutation, cell cycle, and uncontrolled cell growth potentially resulting in cancer. SC.912.L.14.12: Describe the anatomy and histology of bone tissue. SC.912.L.14.13: Distinguish between bones of the axial skeleton and the appendicular skeleton. SC.912.L.14.14: Identify the major bones of the axial and appendicular skeleton. SC.912.L.14.15: Identify major markings (such as foramina, fossae, tubercles, etc.) on a skeleton. Explain why these markings are important.

Quarter 2: October 14, 2025-December 19, 2025	
Topics	Benchmark/ Standards
Skeletal System Muscular System Nervous System	SC.912.L.14.12: Describe the anatomy and histology of bone tissue. SC.912.L.14.13: Distinguish between bones of the axial skeleton and the appendicular skeleton. SC.912.L.14.14: Identify the major bones of the axial and appendicular skeleton. SC.912.L.14.15: Identify major markings (such as foramina, fossae, tubercles, etc.) on a skeleton. Explain why these markings are important." SC.912.L.14.16: Describe the anatomy and histology, including ultrastructure, of muscle tissue. SC.912.L.14.17: List the steps involved in the sliding filament of muscle contraction. SC.912.L.14.18: Describe signal transmission across a myoneural junction. SC.912.L.14.19: Explain the physiology of skeletal muscle. SC.912.L.14.20: Identify the major muscles of the human on a model or diagram. HE.912.C.1.7 Analyze how heredity and family history can impact personal health. SC.912.L.14.21: Describe the anatomy, histology, and physiology of the central and peripheral nervous systems and name the major divisions of the nervous system. SC.912.L.14.22: Describe the physiology of nerve conduction, including the generator potential, action potential, and the synapse. SC.912.L.14.23: Identify the parts of a reflex arc. SC.912.L.14.25: Identify the major parts of a cross section through the spinal cord. SC.912.L.14.27: Identify the functions of the major parts of the brain, including the meninges, medulla, pons, midbrain, hypothalamus, thalamus, cerebellum and cerebrum. SC.912.L.14.28: Identify the major functions of the spinal cord. SC.912.L.14.49: Identify the major functions associated with the sympathetic and parasympathetic nervous systems. SC.912.L.14.50: Describe the structure of vertebrate sensory organs. Relate structure to function in vertebrate sensory systems.
Quarter 3: January 7, 2026- March 12, 2026	
Topics	Benchmark/ Standards
Nervous System Endocrine System Blood Cardiovascular System	SC.912.L.14.21: Describe the anatomy, histology, and physiology of the central and peripheral nervous systems and name the major divisions of the nervous system. SC.912.L.14.22: Describe the physiology of nerve conduction, including the generator potential, action potential, and the synapse. SC.912.L.14.23: Identify the parts of a reflex arc. SC.912.L.14.25: Identify the major parts of a cross section through the spinal cord.

	SC.912.L.14.27: Identify the functions of the major parts of the brain, including the meninges, medulla, pons, midbrain, hypothalamus, thalamus, cerebellum and cerebrum. SC.912.L.14.28: Identify the major functions of the spinal cord. SC.912.L.14.49: Identify the major functions associated with the sympathetic and parasympathetic nervous systems. SC.912.L.14.50: Describe the structure of vertebrate sensory organs. Relate structure to function in vertebrate sensory systems. SC.912.L.14.29: Define the terms endocrine and exocrine. SC.912.L.14.30: Compare endocrine and neural controls of physiology. SC.912.L.14.31: Describe the physiology of hormones including the different types and the mechanisms of their action. SC.912.L.14.34: Describe the composition and physiology of blood, including that of the plasma and the formed elements. SC.912.L.14.35: Describe the steps in hemostasis, including the mechanism of coagulation. Include the basis for blood typing and transfusion reactions." "SC.912.L.14.36: Describe the factors affecting blood flow through the cardiovascular system. SC.912.L.14.37: Explain the components of an electrocardiogram. SC.912.L.14.38: Describe normal heart sounds and what they mean. SC.912.L.14.39: Describe hypertension and some of the factors that produce it. SC.912.L.14.40: Describe the histology of the major arteries and veins of systemic, pulmonary, hepatic portal, and coronary circulation. SC.912.L.14.41: Describe fetal circulation and changes that occur to the circulatory system at birth.
Quarter 4: March 23, 2026- May 28, 2026	
Topics	Benchmark/ Standards
Respiratory System Lymphatic System Digestive System Urinary System Reproductive System	SC.912.L.14.43: Describe the histology of the respiratory system. SC.912.L.14.44: Describe the physiology of the respiratory system including the mechanisms of ventilation, gas exchange, gas transport and the mechanisms that control the rate of ventilation. SC.912.L.14.42: Describe the anatomy and the physiology of the lymph system. SC.912.L.14.52: Explain the basic functions of the human immune system, including specific and nonspecific immune response, vaccines, and antibiotics. SC.912.L.14.45: Describe the histology of the alimentary canal and its associated accessory organs. SC.912.L.14.46: Describe the physiology of the digestive system, including mechanical digestion, chemical digestion, absorption and the neural and hormonal mechanisms of control. SC.912.L.18.2: Describe the important structural characteristics of monosaccharides, disaccharides, and polysaccharides and explain the functions of carbohydrates in living things.

	SC.912.L.18.3: Describe the structures of fatty acids, triglycerides, phospholipids, and steroids. Explain the functions of lipids in living organisms. Identify some reactions that fatty acids undergo. Relate the structure and function of cell membranes. SC.912.L.18.4: Describe the structures of proteins and amino acids. Explain the functions of proteins in living organisms. Identify some reactions that amino acids undergo. Relate the structure and function of enzymes. SC.912.L.14.47: Describe the physiology of urine formation by the kidney. SC.912.L.14.48: Describe the anatomy, histology, and physiology of the ureters, the urinary bladder and the urethra." SC.912.L.16.13: Describe the basic anatomy and physiology of the human reproductive system. Describe the process of human development from fertilization to birth and major changes that occur in each trimester of pregnancy.