



Anatomy & Physiology

TERM 1	
Term 1 Dates	MS College and Career Readiness Standards
WK 1: Aug 6-16	Science Engineering Practices
WK 2: Aug 19-23	HAP.1.1 Apply appropriate anatomical terminology when explaining the orientation of regions, directions, and body planes or sections.
Unit Assessment 1	
WK 3: Aug 26-30	HAP.1.2 Locate organs and their applicable body cavities and systems.
WK 4: Sept 2-6	HAP.1.3 Investigate the interdependence of the various body systems to each other and to the body as a whole.
Mid-term OR Unit Assessment 2 WK 4.5/ WK 5	
WK 5: Sept 9-13	HAP.2.1 Analyze the characteristics of the four main tissue types: epithelial, connective, muscle, and nervous. Examine tissues using microscopes and other various technologies
WK 6: Sept 16-20	HAP.2.2 Construct a model to demonstrate how the structural organization of cells in a tissue relates to the specialized function of that tissue
Unit Assessment 3	
WK 7: Sept 23-27	HAP.2.3 Enrichment: Use an engineering design process to research and develop medications (i.e., targeted cancer therapy drugs) that target uncontrolled cancer cell reproduction.*
WK 8: Sept 30- Oct 4	Review
Unit Assessment 4 optional due to BMA	
WK 9: Oct 7-11	Benchmark or Unit Assessment

TERM 1	
Recurring Standards	
Standards taught the first 4-5 weeks; the mid-term data will indicate remediation is needed.	
WK 5: Sept 9-13	HAP.1.1
WK 6: Sept 16-20	HAP.1.2
WK 7: Sept 23-27	HAP.1.3



Anatomy & Physiology

TERM 2

Term 2 Dates	MS College and Career Readiness Standards
WK 1: Oct 14-18	HAP.3.1 Identify structures and explain the functions of the integumentary system, including layers of skin, accessory structures, and types of membranes. HAP.3.2 Investigate specific mechanisms (e.g., feedback and temperature regulation) through which the skin maintains homeostasis
WK 2: Oct 21-25	HAP.3.3 Research and analyze the causes and effects of various pathological conditions (e.g., burns, skin cancer, bacterial/viral infections, and chemical dermatitis). HAP.3.4 Enrichment: Use an engineering design process to design and model/simulate effective treatments for skin disorders (e.g., tissue grafts).*
Unit Assessment 1	
WK 3: Oct 28- Nov 1	HAP.4.1 Use models to compare the structure and function of the skeletal system. HAP.4.2 Develop and use models to identify and classify major bones as part of the appendicular or axial skeleton
WK 4: Nov 4-8	HAP.4.3 Identify and classify types of joints and their movement. HAP.4.4 Demonstrate an understanding of the growth and development of the skeletal system, differentiating between endochondral and intramembranous ossification. HAP.4.5 Construct explanations detailing how mechanisms (e.g., Ca ²⁺ regulation) are used by the skeletal system to maintain homeostasis.
Mid-term OR Unit Assessment 2 WK 4.5/ WK 5	
WK 5: Nov 11-15	HAP.4.6 Research and analyze various pathological conditions (e.g., bone fractures, osteoporosis, bone cancers, various types of arthritis, and carpal tunnel syndrome). HAP.4.7 Enrichment: Use an engineering design process to develop, model, and test effective treatments for bone disorders (i.e., prosthetics).*
WK 6: Nov 18-22	HAP.5.1 Develop and use models to illustrate muscle structure, muscle locations and groups, actions, origins, and insertions. HAP.5.2 Describe the structure and function of the skeletal muscle fiber and the motor unit. HAP.5.3 Explain the molecular mechanism of muscle contraction and relaxation
Unit Assessment 3	
WK 7: Dec 2-6	HAP.5.4 Use models to locate the major muscles and investigate the movements controlled by each muscle. HAP.5.5 Compare and contrast the anatomy and physiology of the three types of muscle tissue.

	HAP.5.6 Use technology to plan and conduct an investigation that demonstrates the physiology of muscle contraction, muscle fatigue, or muscle tone. Collect and analyze data to interpret results, then explain and communicate conclusions.
Wk 8: Dec 9-13	HAP.5.7 Research and analyze the causes and effects of various pathological conditions, (e.g., fibromyalgia, muscular dystrophy, cerebral palsy, muscle cramps/strains, and tendonitis). HAP.5.8 Enrichment: Use an engineering design process to develop effective ergonomic devices to prevent muscle fatigue and strain (e.g., carpal tunnel, exoskeletons for paralysis, or training plans to prevent strains/sprains/cramps).*
Unit Assessment 4 optional due to BMA	
Wk 9: Dec 16-20	Benchmark OR Unit Assessment

TERM 2	
Recurring Standards	
Standards taught the first 4-5 weeks; the mid-term data will indicate remediation is needed.	
Wk 5: Nov 11-15	HAP.3.1, HAP.3.2 & HAP.3.3
Wk 6: Nov 18-22	HAP.4.1 & HAP.4.2
Wk 7: Dec 2-6	HAP.4.3, HAP.4.4 & HAP.4.5



Anatomy & Physiology

TERM 3

Term 3 Dates	MS College and Career Readiness Standards
WK 1: Jan 6-10	<p>HAP.6.1 Describe and evaluate how the nervous system functions and interconnects with all other body systems.</p> <p>HAP.6.2 Analyze the structure and function of neurons and their supporting neuroglia cells (e.g. astrocytes, oligodendrocytes, Schwann cells, microglial).</p> <p>HAP.6.3 Discuss the structure and function of the brain and spinal cord.</p>
WK 2: Jan 13-17	<p>HAP.6.4 Compare and contrast the structures and functions of the central and peripheral nervous systems. Investigate how the systems interact to maintain homeostasis (e.g., reflex responses, sensory responses).</p> <p>HAP.6.5 Enrichment: Plan and conduct an experiment to test reflex response rates under varying conditions. Using technology, construct graphs in order to analyze and interpret data to explain and communicate conclusions.</p> <p>HAP.6.6 Describe the major characteristics of the autonomic nervous system. Contrast the roles of the sympathetic and parasympathetic nervous systems in maintaining homeostasis</p>
Unit Assessment 1	
WK 3: Jan 20-24	<p>HAP.6.7 Describe the structure and function of the special senses (i.e., vision, hearing, taste, and olfaction).</p> <p>HAP.6.8 Research and analyze the causes and effects of various pathological conditions (e.g., addiction, depression, schizophrenia, Alzheimer’s, sports-related chronic traumatic encephalopathy [CTE], dementia, chronic migraine, stroke, and epilepsy).</p> <p>HAP.6.9 Enrichment: Use an engineering design process to develop, model, and test preventative devices for neurological injuries and/or disorders (e.g., concussion-proof helmets or possible medications for addiction and depression).*</p>
WK 4: Jan 27-31	<p>HAP.7.1 Obtain, evaluate, and communicate information to illustrate that the endocrine glands secrete hormones that help the body maintain homeostasis through feedback mechanisms.</p> <p>HAP.7.2 Discuss the function of each endocrine gland and the various hormones secreted.</p> <p>HAP.7.3 Model specific mechanisms through which the endocrine system maintains homeostasis (e.g., insulin/glucagon and glucose regulation; T3 / T4 and metabolic rates; calcitonin/parathyroid and calcium regulation; antidiuretic hormone and water balance; growth hormone; and cortisol and stress)</p>
Mid-term OR Unit Assessment 2 WK 4.5/ WK 5	
WK 5: Feb 3-7	<p>HAP.7.4 Research and analyze the effects of various pathological conditions (e.g., diabetes mellitus, pituitary dwarfism, Graves’ disease, Cushing’s syndrome, hypothyroidism, and obesity).</p>

	HAP.7.5 Enrichment: Use an engineering design process to develop effective treatments for endocrine disorders (e.g., methods to regulate hormonal imbalance).*
WK 6: Feb 10-14	HAP.8.1 Compare and contrast the structure and function of the male and female reproductive systems. HAP.8.2 Describe the male reproductive anatomy and relate structure to sperm production and release. HAP.8.3 Describe the female reproductive anatomy and relate structure to egg production and release.
<i>Unit Assessment 3</i>	
WK 7: Feb 17-21	HAP.8.4 Construct explanations detailing the role of hormones in the regulation of sperm and egg development. Analyze the role of negative feedback in regulation of the female menstrual cycle and pregnancy. HAP.8.5 Evaluate and communicate information about various contraceptive methods to prevent fertilization and/or implantation
WK 8: Feb 24-28	HAP.8.6 Describe the changes that occur during embryonic/fetal development, birth, and the growth and development from infancy, childhood, and adolescence to adult. HAP.8.7 Research and analyze the causes and effects of various pathological conditions (e.g., infertility, ovarian cysts, endometriosis, sexually transmitted diseases, and ectopic pregnancy). Research current treatments for infertility
<i>Unit Assessment 4 optional due to BMA</i>	
WK 9: Mar 3-7	<i>BMA OR Unit Assessment</i>

TERM 3	
Recurring Standards	
Standards taught the first 4-5 weeks; the mid-term data will indicate remediation is needed.	
WK 5: Feb 3-7	HAP.6.1, HAP.6.2 & HAP.6.3
WK 6: Feb 10-14	HAP.6.4 & HAP.6.6
WK 7: Feb 17-21	HAP.6.7 & HAP.6.8



Anatomy & Physiology

TERM 4	
Term 4 Dates	MS College and Career Readiness Standards
WK 1: March 17-21	HAP.9 Students will analyze the structure and functions of blood and its role in maintaining homeostasis.
WK 2: March 24-28	HAP.10 Students will investigate the structures and functions of the cardiovascular system, including the cause and effect of diseases and disorders
WK 3: March 31- April 4	HAP. 11 Students will investigate the structures and functions of the lymphatic system, including the cause and effect of diseases and disorders.
WK 4: April 7-11	HAP. 12 Students will investigate the structures and functions of the respiratory system, including the cause and effect of diseases and disorders.
WK 5: April 14-18	HAP.13 Students will investigate the structures and functions of the digestive system, including the cause and effect of diseases and disorders
WK 6: April 21-25	HAP.13 Students will investigate the structures and functions of the digestive system, including the cause and effect of diseases and disorders.
WK 7: April 28- May 2	HAP.14 Students will investigate the structures and functions of the urinary system, including the cause and effect of diseases and disorders.
WK 8: May 5-9	State Testing
WK 9: May 12-21	

TERM 4	
Recurring Standards	
Standards taught the first 4-5 weeks; the mid-term data will indicate remediation is needed.	
WK 5: April 14-18	
WK 6: April 21-25	
WK 7: April 28- May 2	