

Program Transfer Goals

- Ask questions, recognize and define problems, and propose solutions.
- Safely and ethically collect, analyze, and evaluate appropriate data.
- Utilize, create, and analyze models to understand the world.
- Make valid claims and informed decisions based on scientific evidence.
- Effectively communicate scientific reasoning to a target audience.
- Engaging in argument from evidence.

Pacing

Semester One
Quarter One Concept: Organization of the Human Body
Course Introduction (5 days) AP.2A, AP.3A
Introduction to Anatomy and Physiology (9 days) AP.5C, AP.6ABCDE
Histology (14 days) AP.2D, AP.7ABC
Concept: Support and Body Movement The Integumentary System (10 days) AP.2B, AP.4A, AP.9ABCD
Quarter Two Concept: Support and Body Movement cont.
The Skeletal System (11 days) AP.2G; AP.8ABCDEFG
The Muscular System (10 days) AP.10ABCDEFGHI
Concept: Communication and Control The Nervous System and the Special Sense Organs (15 days) AP.11AEFGHIJ; AP.11BCD

Semester Two
Quarter Three Concept: Communication and Control cont.
The Endocrine System (7 days) AP.12ABCDEF
Concept: Maintenance and Regulation Blood and the Cardiovascular System (15 days) AP.14ABCDEFGH
The Lymphatic System (10 days) AP.15ABCDEFG
The Respiratory System [10 days= 3Q3 +7Q4] AP.17ABCDEF
Quarter Four Concept: Maintenance and Regulation cont.
The Digestive System (10 days) AP.7D; AP.16ABCD
The Urinary/Excretory System (10 days) AP.13ABCDEFG
Concept: Reproduction The Reproductive System (10 days) AP.18ABCDEF
Technology Applications in Medicine (7 days) AP.5ABC; AP.19AB

Assurance for a Guaranteed and Viable Curriculum

Adherence to this scope and sequence affords every member of the learning community clarity on the knowledge and skills on which each learner should demonstrate proficiency. In order to deliver a guaranteed and viable curriculum, our team commits to and ensures the following understandings:

Shared Accountability: Responding to the Needs of All Learners

- High levels of learning for all students.
- The district and course formative assessments aligned to the standards for this course support educators and learners in monitoring academic achievement and leveraging interventions.

Shared Understanding: Curriculum Design

- The district curriculum design weaves together elements of science and engineering practices, content, recurring themes and concepts, and assessments through phenomenon in order to adhere to curriculum design at the macro and micro level, ensuring vertical alignment.
- The district curriculum incorporates standards, scope and sequence, enduring understandings, essential questions, performance assessments, and recommended resources.

Interdependence: Curriculum Units

Members of the learning community utilize the curriculum units, plan collaboratively, and reflect on results for continuous improvement.

Unit 1: Introduction to Anatomy & Physiology

Timeline: 9 days

Objectives: Students will...

- Distinguish between the six levels of structural organization in the human body.
 - Identify and use appropriate directional terminology when referring to the human body.
 - Use anatomical language to define parts of the body as well as position.
 - Identify and describe the major characteristics of living organisms, including response to stimuli, growth and development, homeostasis, cellular composition, metabolism, reproduction, and the ability to adapt to the environment.
- Students will research and describe negative and positive feedback loops as they apply to homeostasis.

Unit 2: Histology

Timeline: 14 days

Objectives: Students will...

- Define tissue and identify histological samples from the human body and be able to explain their function.
- Explain how tissues come together to form organs and various parts of the body.
- Describe the process of tissue repair involved in the healing of a superficial wound.

Unit 3: The Integumentary System

Timeline: 10 days

Objectives: Students will...

- State the parts that make up the integumentary system.
- Identify and label parts on a cross section of the skin.
- Identify the major features of the nails and the hair.
- Explain the major functions of the integumentary system.
- Identify and describe common diseases and disorders of the integumentary system.

Unit 4: The Skeletal System

Timeline: 11 days

Unit Summary: Students will...

- Identify and label all bones in the axial and appendicular skeleton.
- Differentiate between axial and appendicular.
- Identify the types of joints.
- Explain how bone develops.
- Explain the process of bone repair after a fracture.
- Identify major markings on bone.

Unit 5: The Muscular System

Timeline: 10 days

Objectives: Students will...

- Identify and label major skeletal muscles of the human body and explain their functions.
- Explain the neuromuscular junction and the process of muscle contraction.
- Define muscle fatigue.
- Identify muscle fiber arrangements.
- Identify and describe common diseases and disorders of the muscular system.

Unit 6 & 7: The Nervous System and the Special Sense Organs

Timeline: 15 days

Objectives: Students will...

- Summarize and distinguish between the major physiological functions of the nervous system.
- Identify the senses and explain their relationship to the nervous system.
- Investigate and explain the interdependence between nerves with special senses.
- Describe the anatomy of the structures associated with the senses.
- Identify the anatomical and physiological divisions of the peripheral nervous system and central nervous system.
- Identify and describe common diseases and disorders of the nervous system.

Unit 8: The Endocrine System

Timeline: 7 days

Objectives: Students will...

- Explain how hormones affect the body's processes.
- Explain how the endocrine system works as a feedback mechanism to regulate various processes in the body.

Unit 9: Blood and the Cardiovascular System

Timeline: 18 days

Objectives: Students will...

- Explain the types of blood cells, their function, and the composition of the blood.
- Differentiate between arteries, capillaries, and veins and define their functions.
- Identify and label anatomical structures of the heart.
- Explain the flow of impulse through the heart.
- Identify normal heart wave/rhythm and compare it to tachycardia and bradycardia rhythms.
- State the different blood types, explain blood reactions, and the effects of Rh+.

Unit 10: The Lymphatic System

Timeline: 10 days

Objectives: Students will...

- Discuss the body's barriers to defenses.
- Compare/contrast innate vs. adaptive immunity (specific and nonspecific defenses).

Unit 11: The Respiratory System

Timeline: 10 days

Objectives: Students will...

- Identify and label parts of the upper respiratory tract.
- Identify and label parts of the lower respiratory tract.
- Explain the process of gas exchange at the alveolar level.
- Explain the physiology of taking a breath.

Unit 12: The Digestive System

Timeline: 10 days

Objectives: Students will...

- Identify and label anatomical structures of the digestive system.
- Define the physiological functions of the structures of the digestive system.
- Explain the role of accessory organs to the digestive system.
- Differentiate between macro- and micronutrients.
- Explain the mechanical and chemical processes of digestion.

Unit 13: The Urinary/Excretory System

Timeline: 10 days

Objectives: Students will...

- Identify and label anatomical structures of the kidney.
- Explain the importance of the nephron and its function in the human body.
- Explain the process of urine production.
- State the hormones responsible for fluid balance (and output) in the body.

Unit 14: The Reproductive System**Timeline:** 10 days**Objectives: Students will...**

- Identify and label the anatomical structures of the male and female reproductive system.
- Explain the physiological functions of various organs of the male and female reproductive systems.

Unit 15:**Timeline:****Unit Summary:**