

Honors Anatomy and Physiology
1st Quarter

Chapter	Standards	Topics	Time Frame
Chapter 1 - The Human Body: An Orientation	HS-LS1-1 HS-LS1-2 HS-LS1-3	- Anatomy vs Physiology - Levels of Structural Organization - Overview of the Systems - Life Functions - Language of Anatomy - Body Cavities and Regions - Homeostasis	4 Weeks
Chapter 2 - Basic Chemistry	HS-LS1-6 HS-ETS1-1 HS-ESS2-5	- Concepts of Matter and Energy - Composition of Matter - Chemical Bonds and Reactions - Acids and Bases - Macromolecules - ATP	3 Weeks
Chapter 3 - Cells and Tissues	HS-LS1-1 HS-LS1-2 HS-LS1-3 HS-ETS1-3 HS-LS1-7 HS-LS4-6	- Anatomy of a Cell - Organelles - Cell Physiology - Passive and Active Transport - Cell Division - Epithelial Tissues - Connective Tissue - Muscle Tissue - Nervous Tissue - Tissue Repair	3 Weeks

2nd Quarter

Chapter	Standards	Topics	Time Frame
Chapter 4 - Skin and Body Membranes	HS-LS1-1 HS-LS1-2 HS-LS1-3	- Classifying Body Membranes - Functions of the Integumentary System - Structures of the Skin - Skin Color - Appendages of the Skin - Burns	3 Weeks

		- Skin Cancer	
Chapter 5 - The Skeletal System	HS-LS1-2	<ul style="list-style-type: none"> - Functions of Bones - Classifications of Bones - Structure of Bones - Bone Formation, Growth and Remodeling - Axial Skeleton - The Skull - Vertebral Column - Thoracic Cage - Appendicular Skeleton - Joints - Development of the Skeleton - Older Adults 	4 Weeks

3rd Quarter

Chapter	Standards	Topics	Time Frame
Chapter 6 - The Muscular System	HS-LS1-1 HS-LS1-2 HS-LS1-3	<ul style="list-style-type: none"> - Muscle Types - Muscle Functions - Microscopic Anatomy - Skeletal Muscle Activity - Muscle Contraction - Graded Responses - Effect of Exercise on Muscles - Types of Body Movements - Naming Skeletal Muscles - Developmental Aspects of Muscular System 	4 Weeks
Cat Dissection	HS-LS1-2 HS-LS4-1	- Relate the muscles of the cat to human muscles.	2 Weeks
Chapter 7 - The Nervous System	HS-LS1-1 HS-LS1-2	<ul style="list-style-type: none"> - Organization of the Nervous System - Structural and Functional Classification - Neurons 	4 Weeks

		<ul style="list-style-type: none"> - Nerve Impulses - Reflexes - Central Nervous System - Parts of the Brain - Brain Injuries and Dysfunctions - The Spinal Cord - Peripheral Nervous System - Cranial Nerves - Spinal Nerves - Somatic and Autonomic Nervous System - Sympathetic and Parasympathetic Nervous System - Developmental Aspects of the Nervous System - Neurological Diseases 	
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4th Quarter

Chapter	Standards	Topics	Time Frame
Chapter 8 - Special Senses	HS-LS1-1 HS-LS1-2	<ul style="list-style-type: none"> - Anatomy of the Eye - Physiology of Vision - Anatomy of the Ear - Hearing - Equilibrium - Taste and Smell - Developmental Aspects - Diseases 	3 Weeks
Chapter 10 - Blood	HS-LS1-1 HS-LS1-2 HS-LS1-3	<ul style="list-style-type: none"> - Composition and Function of the Blood - Erythrocytes - Leukocytes - Blood Cell Formation - Hemostasis - Blood Disorders - Blood Types and Transfusions 	2 Weeks
Chapter 11 - The Cardiovascular System	HS-LS1-1 HS-LS1-2 HS-LS1-3	<ul style="list-style-type: none"> - Anatomy of the Heart - Chambers of the Heart and Vessels 	3 Weeks

		<ul style="list-style-type: none"> - Heart Valves - Physiology of the Heart - Blood Vessels - Physiology of Circulation - Blood Pressure - Developmental Aspects - Diseases of the Heart 	
Chapter 13 - The Respiratory System	<p>HS-LS1-1 HS-LS1-2 HS-LS1-3</p>	<ul style="list-style-type: none"> - The Nose, Pharynx, Larynx and Trachea - The Lungs - Mechanics of Breathing - Respiratory Volumes and Capacities - External Respiration, Gas Transport, and Internal Respiration - Respiratory Disorders - Developmental Aspects - Diseases 	3 Weeks