

GRADES 11-12: ANATOMY, PHYSIOLOGY, AND CURRENT ISSUES IN HUMAN HEALTH

UNIT 1: ORIENTATIONS & LANDMARKS AND SENSORY		
Big Questions	Formative/ Summative Assessments	
1. How do the nose, eyes, skin, and brain function to receive and integrate sensory information? 2. How do we describe body landmarks, sections, and orientations?	Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test 	
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources/Activities
Identify and discuss the structures and functions of the sensory system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 4 and 8 • DVD: “Pushing the Limits” • DVD: “Uncovering Skin” • Optional eye dissection
Use anatomy vocabulary to describe body landmarks, orientations, and sections		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 1
Identify and discuss the structures and functions of generalized cells and tissues		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 3

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UNIT 2: BODY CAVITIES, ENDOCRINE, AND DIGESTIVE		
Big Questions	Formative/ Summative Assessments	
1. What are the structures and functions of the digestive system? 2. How does the endocrine system regulate body processes? 3. What impact do diabetes, eating disorders and obesity have on individuals and society?	Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test 	
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources
Identify and discuss the structures and functions of the digestive system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 14 • Video: “Student Video Series for Human Anatomy and Physiology”
Identify and discuss the structures and functions of endocrine system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 9
Discuss the impact that diabetes, obesity and eating disorders have on individuals and society		<ul style="list-style-type: none"> • Video: “Big as Life: Obesity in America” • Language of Cells: Fat • A Map of the Child: Guts
Associate the names with the locations of body cavities		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 1

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UNIT 3: CELL CYCLE, HEALTHCARE, SKELETAL, MUSCULAR, DEATH AND DYING		
Big Questions	Formative/ Summative Assessments	
<ol style="list-style-type: none"> 1. How does cell behavior differ in healthy cells and cancerous cells? 2. What are personal and societal expectations of health care providers? 3. How does health insurance work? 4. What are the structures and function of the skeletal system? 5. What are the structures and functions of the muscular system? 6. What are the legal and societal issues surrounding death? 7. How does the organ donation process work? 	Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test 	
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources
Describe the cell cycle in healthy and cancerous cells		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 3 • Language of Cells: Working through Images
Analyze the Hippocratic Oath, and discuss personal and societal expectations of health care providers; understand the American health insurance system; discuss the process of organ donation		<ul style="list-style-type: none"> • DVD: “The Doctor” • DVD: “John Q” • DVD: “Fighting for Care”
Identify and discuss the structures and functions of the skeletal system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 5 • Death’s Acre: Bare Bones • Video: “Student Video Series for Human Anatomy and Physiology”
Identify and discuss the structures and functions of the muscular system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 6 • Video: “Student Video Series for Human Anatomy and Physiology”
Identify the legal definition of death, and discuss societal rituals		<ul style="list-style-type: none"> • DVD: “Mortuary Science” • Stiff: How to Know if You’re Dead

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UNIT 4: NERVOUS SYSTEM		
Big Questions	Formative/ Summative Assessments	
1. What are the structures and functions of the nervous system? 2. What are the characteristics of, and personal and societal implications of, Alzheimer’s, addiction, spinal cord injuries, and autism? 3. How does the teenage brain differ from the adult brain?	Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test 	
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources
Identify and discuss the structures and functions of the nervous system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 7 • DVD: “Pushing the Limits” • Video: “Student Video Series for Human Anatomy and Physiology”
Discuss the characteristics of, and personal and societal implications of, Alzheimer’s, addiction, spinal cord injuries, and autism		<ul style="list-style-type: none"> • Language of Cells: Old Soldier • Language of Cells; Early Alzheimer’s • DVD: “Constant Craving”
Describe how the teenage brain functions, emphasizing the development of the brain from teenage to adulthood		<ul style="list-style-type: none"> • Frontline: Inside the Teenage Brain

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UNIT 5: BLOOD AND CARDIOVASCULAR		
Big Questions	Formative/ Summative Assessments	
1. What are the structures and functions of blood? 2. What are the structures and functions of the cardiovascular system?	Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test 	
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources
Identify and discuss the structures and functions of blood		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 10 • DVD: “Hemo the Magnificent” • Blood-typing Lab • Language of Cells: Burden of Sickle Cells • Map of the Child: Blood
Identify and discuss the structures and functions of the cardiovascular system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 11 • Online case study: Anyone with a Heart

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UNIT 6: REPRODUCTION		
Big Questions		Formative/ Summative Assessments
1. What are the structures and functions of the male and female reproductive systems? 2. How does birth control work? 3. How is sex determined, and what are the personal and societal issues related to gender?		Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> • Unit test
Curriculum Benchmark	Standards of Proficiency Description of what students must show to demonstrate proficiency (created by teachers/teams)	Resources
Identify and discuss the structures and functions of the reproductive system		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 16 • Video: “Student Video Series for Human Anatomy and Physiology”
Explain how birth control methods interfere with the anatomy and physiology of a male or female		<ul style="list-style-type: none"> • Textbook: Essentials of Human Anatomy and Physiology, Ch. 16
Explain how sex is determined, and discuss the personal and social issues related to gender		<ul style="list-style-type: none"> • Video: “Gender; Unknown”

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UNIT 7: BIOETHICS		
Big Questions	Formative/ Summative Assessments	
1. What are bioethical issues related to human anatomy and physiology? 2. How can we use the principles of ethical decision making model to examine bioethical issues to arrive at a conclusion?	Formative and summative assessments created by teachers/teams Options include, but are not limited to: <ul style="list-style-type: none"> Bioethics research and position paper 	
Curriculum Benchmark	Standards of Proficiency	Resources
Identify bioethical issues related to human anatomy and physiology, and use the principles of ethical decision making model to examine the issue	Description of what students must show to demonstrate proficiency (created by teachers/teams)	<ul style="list-style-type: none"> Principles of Ethical Decision Making Video: "A Question of Genes: Inherited Risks"

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READING IN THE CONTENT AREA FOR GRADES 11-12: (Taken from “Standard for Literacy in History/Social Studies/Science/Technical Subjects”)		
Minnesota Benchmark	Activities	How Assessed
Cite specific textual evidence to support analysis of technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account (11.13.1.1)		
Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms (11.13.2.2) (All units/All quarters)	Worksheets, activities	Homework, tests
Follow precisely a complex multistep procedure when carrying out experiments, designing solutions, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text (11.13.3.3).		
Determine the meaning of symbols, equations, graphical representations, tabular representations, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics (11.13.4.4)		
Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas (11.13.5.5).		
Analyze the author’s purpose in describing phenomena, providing an explanation, describing a procedure, or discussing/reporting an experiment in a text, identifying important issues and questions that remain unresolved (11.13.6.6).		
Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem (11.13.7.7). (All units/All quarters)	Worksheets, activities, research	Homework, tests
Evaluate the hypotheses, data, analysis, and conclusions in a technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information (11.13.8.8).		
Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible (11.13.9.9). (All units/All quarters)	Worksheets, activities, research	Homework, tests
By the end of grade 12, read and comprehend technical texts in the grades 11-12 text complexity band independently and proficiently (11.13.10.10).		