Lowndes County Anatomy & Physiology Pacing Guide 2009-2010

MS Frameworks Pacing Guide Worksheet

Grade Level: 9-12
Grading Period: 1st—9 weeks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
		2. Demonstrate an understanding of the basic organization of the body.		
Unit 1: Levels of Organization **Chapter 1: Introduction to A&P**	**Anatomical Positions**	2a. Apply and relate appropriate anatomical terms to the body in anatomical position. (DOK 1)	**9**	• **Video: Life** • **Group modeling: Positions** • **Video: Human Machines** • **Vital Signs Lab** • **Vocabulary Quiz**
Unit 1: Levels of Organization **Chapter 1: Introduction to A&P**	**Feedback mechanisms**	2b. Explain how specific mechanisms (e.g., feedback, transport, pH, temperature regulation, etc.) maintain homeostasis. (DOK 1)	**1**	• **Process Posters** • **Draw pH Scale** • **pH Lab**
Unit 1: Levels of Organization **Chapter 2: Chemical Basis of Life**	**Chemical Basis of Life**	2c. Describe the relationships and interactions of biochemical composition of the human body to body functions. (DOK 2)	**10**	• **Paper Molecules of Life** • **Vocabulary Quiz**

Unit 1: Levels of Organization **Chapter 3/5: Cells and Tissues**	**Cells and Tissues**	2d. Categorize the relationship of the cell and its functions to the more complex levels of organization within the body. (DOK 2)	**10**	• **Cell Model** • **Draw various cell types** • **Osmosis Lab** • **Vocabulary Quiz** • **Microscopes: Tissues**

MS Frameworks Pacing Guide Worksheet

Grade Level: 9-12
Grading Period: 2nd —9 weeks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days	Suggested Teaching Strategies
		3. Demonstrate an understanding of the structure, functions, and relationships of the body systems.		
Unit 2: Support and Movement **Chapter 6: Integumentary**	**Integumentary System**	3a. Identify structures and explain functions of the components of the integumentary system. (DOK 1)	**7**	• **Video: Body Worlds** • **Skin, Hair, Teeth and Nails Lab** • **Vocabulary Quiz** • **Natl Geographic Skin**
Unit 2: Support and Movement **Chapter 6: Integumentary**	**Integumentary System disorders**	3b. Research and distinguish among common integumentary system disorders in terms of origin, manifestation, and treatments. (DOK 1)	**3**	• **Clinical Terms Quiz**
Unit 2: Support and Movement **Chapter 7: Skeletal System**	**Skeletal System**	3c. Compare the structure and functions of the skeletal system with its relationship to movement. (DOK 1)	**7**	• **Mr/Ms Bone Man** • **Toothpick Skeletons** • **Vocabulary Quiz**

Unit 2: Support and Movement **Chapter 7: Skeletal System**	**Skeletal System disorders**	3d. Research and draw conclusions about changes in the skeletal system associated with disease, disorder, injury, age, and stress. (DOK 3)	**3**	• **Clinical Terms Quiz** • **Inside Look: Broken Bones**
Unit 2: Support and Movement **Chapter 8: Muscular System**	**Muscular System**	3e. Compare the functions and structures of the muscular system with its relationship to movement. (DOK 1)	**7**	• **Bubble Gum Muscles** • **Muscle Structure Paper Lab** • **Vocabulary Quiz**
Unit 2: Support and Movement **Chapter 8: Muscular System**	**Muscular System disorders**	3f. Research and evaluate the impact of medical technology on muscle physiology and disease. (DOK 3)	**3**	• **Clinical Terms Quiz**
Unit 3: Integration and Coordination **Chapter 9/10: Nervous System**	**Nervous System**	3g. Relate the components of the nervous system to the senses and the functions of the human body systems. (DOK 1)	**7**	• **Brain Cap** • **Senses Lab** • **Vocabulary Quiz** • **Eye Test Lab** • **Draw special senses diagrams**
Unit 3: Integration and Coordination **Chapter 9/10: Nervous System**	**Nervous System disorders**	3h. Describe functions of the various sense organs and identify environmental factors that affect their responses. (DOK 1)	**3**	• **Clinical Terms Quiz** • **Autopsy Files**

MS Frameworks Pacing Guide Worksheet

Grade Level: 9-12
Grading Period: 3rd —9 weeks

Chapter/Unit	Lesson Topic	Objective Number	Approximate Days Needed	Suggested Teaching Strategies
		3. Demonstrate an understanding of the structure, functions, and relationships of the body systems.		
Unit 3: Integration and Coordination **Chapter 11: Endocrine System**	**Endocrine System**	3i. Distinguish the location, structure, and functions of the endocrine glands.	**7**	• **Hormone Case Studies** • **Vocabulary Quiz**
Unit 3: Integration and Coordination **Chapter 11: Endocrine System**	**Endocrine system disorders**	3j. Research common disorders or diseases of the endocrine system and assess the unique problems associated with diagnoses and treatments. (DOK 3)	**3**	• **Clinical Terms Quiz**
Unit 4: Transport **Chapter 12/13: Blood / Circulatory System**	**Circulatory System**	3o. Demonstrate an understanding of the structures and functions of the circulatory system and their role in maintaining homeostasis. (DOK 2)	**7**	• **Blood Flow through the Heart** • **Blood Case Study** • **Blood Type Lab** • **Vocabulary Quiz**

Unit 4: Transport **Chapter 12/13: Blood / Circulatory System**	**Circulatory System disorders**	3p. Investigate and describe the social and economic impact of technological advances in medical treatment on cardiovascular disorders. (DOK 3)	**3**	• **Clinical Terms Quiz** • **EKG Lab** • **Inside Look: Heart Attack** • **NobelPrize.org EKGs** • **MHHE Virtual Blood Pressure Lab** • **Blood Typing Game** • **Anatomy of the Heart**
Unit 4: Transport **Chapter 14: Lymphatic System**	**Lymphatic System**	3q. Describe and discuss the structures and functions of the lymphatic system and the relationships to the circulatory system and immunity. (DOK 1)	**7**	• **Epidemic Simulation: Flu** • **Vocabulary Quiz** • **Video: Unknown Worlds** • **Nobel Prize Immune System**
Unit 4: Transport **Chapter 14: Lymphatic System**	**Lymphatic System disorders**	3r. Research and describe common lymphatic disorders and present conclusions about the effectiveness of available treatment options. (DOK 3)	**3**	• **Clinical Terms Quiz** • **Video: Secret Life of Green Street** • **Video: Discovery Flu** • **Video: Immunology** • **Sneeze Mystery**
Unit 5: Absorption and Excretion **Chapter 15: Digestive System / Nutrition**	**Digestive System**	3k. Identify and discuss the structures and functions of the organs of the digestive system and discuss their relationships to the interaction among the human body systems. (DOK 2)	**7**	• **My Guts Posters** • **Trace food through the GI tract** • **Enzyme Lab** • **Vocabulary Quiz**

Unit 5: Absorption and Excretion **Chapter 15: Digestive System / Nutrition**	**Digestive System disorders**	3l. Research common disorders or diseases of the digestive system and identify a diagnosis, based upon a given set of symptoms, for a specific disorder. (DOK 3)	**3**	• **Clinical Terms Quiz** • **Video: Typhoid Mary**

MS Frameworks Pacing Guide Worksheet

Grade Level: 9-12
Grading Period: 4th –9 weeks

Chapter/Unit	**Lesson Topic**	**Objective Number**	**Approximate Days Needed**	**Suggested Teaching Strategies**
		3. Demonstrate an understanding of the structure, functions, and relationships of the body systems.		
Unit 5: Absorption and Excretion **Chapter 16: Respiratory System**	**Respiratory System**	3m. Describe the primary functions of the respiratory organs and the relationships between structure and function. (DOK 1)	**7**	• **Make a Spirometer** • **Respiratory Volume Lab** • **Diffusion Lab** • **Vocabulary Quiz** • **BrainPop Respiratory Video** • **Asthma WebQuest.**
Unit 5: Absorption and Excretion **Chapter 16: Respiratory System**	**Respiratory System disorders**	3n. Research to describe various diseases commonly affecting normal respiratory function and assert environmental and social factors which may contribute to the incidence of disease. (DOK 2)	**3**	• **Clinical Terms Quiz**

Unit 5: Absorption and Excretion **Chapter 17/18: Urinary System/Water-Electrolyte/Acid Base Balance**	**Urinary System**	3s. Explain the role of the structures and functions of the urinary system as they relate to the formation, composition and elimination of urine. (DOK 1)	**7**	• **Urinalysis Simulation Lab** • **Vocabulary Quiz**
Unit 5: Absorption and Excretion **Chapter 17/18: Urinary System/ Water-Electrolyte/Acid Base Balance**	**Urinary System disorders**	3t. Research and describe the treatments of common urinary system disorders. (DOK 1)	**3**	• **Clinical Terms Quiz**
Unit 6: The Human Life Cycle **Chapter 19/20: Reproductive System/Pregnancy, Growth, and Development**	**Reproductive System**	3u. Identify and discuss the locations, structures, and functions of the major components of the male and female reproductive systems. (DOK 1)	**7**	• **Vocabulary Quiz** • **Video: Ultimate Journey** • **Video: Journey into Life**
Unit 6: The Human Life Cycle **Chapter 20: Reproductive System/Pregnancy, Growth, and Development**	**Reproductive System disorders**	3v. Research common reproductive diseases and disorders and justify the need for continued research in the diagnosis and treatment of reproductive system diseases. (DOK 3)	**3**	• **Clinical Terms Quiz**

Unit: Lab Practicum **Fetal Pig Dissection**			**10**	
Continuous		**1. Apply inquiry-based and problem-solving processes and skills to scientific investigations.**		
Continuous		1a. Use current technologies such as CD-ROM, DVD, Internet, and on-line data search to explore current research related to a specific topic. (DOK 3)		**Virtual Labs:** • Asthma WebQuest. • BrainPop Video • Respiratory System Games (3) • Nobel Prize Immune System • Sneeze Mystery • NobelPrize.org EKGs • MHHE Virtual Blood Pressure Lab • Blood Typing Game • Anatomy of the Heart
Continuous		1b. Clarify research questions and design laboratory investigations. (DOK 3)		**Labs:** • **Senses Lab** • **pH Lab** • **Osmosis Lab** • **Diffusion Lab** • **Enzyme Lab** • **Vital Signs Lab** • **Blood Typing Lab** • **Senses Lab**

				• **Respiratory Volume Lab** • **Case Studies** • **Simulations**
Continuous		1c. Demonstrate the use of scientific inquiry and methods to formulate, conduct, and evaluate laboratory investigations (e.g., hypotheses, experimental design, observations, data analyses, interpretations, theory development). (DOK 3)		**Design an experiment**
Continuous		1d. Organize data to construct graphs (e.g., plotting points, labeling x-and y-axis, creating appropriate titles and legends for circle, bar, and line graphs) to draw conclusions and make inferences. (DOK 3)		**Design an experiment**
Continuous		1e. Evaluate procedures, data, and conclusions to critique the scientific validity of research. (DOK 3)		**Design an experiment.**
Continuous		1f. Formulate and revise scientific explanations and models using logic and evidence (data analysis). (DOK 3)		**Design an experiment.**

Continuous		1g. Collect, analyze, and draw conclusions from data to create a formal presentation using available technology (e.g., computers, calculators, SmartBoard, CBL's, etc.) (DOK 3)	**5 (Nine Week Tests and Exam weeks)**	**Design an experiment.** **Power Point Disease Project**