

**Lawton Public Schools**  
**ANATOMY & PHYSIOLOGY SUMMARY**  
*Revised April 2008*

Text: Hole's Essentials of Human Anatomy and Physiology

**First 9 weeks**

Unit 1: Levels of Organization  
Chapters 1 – 5  
Objectives 1 - 13

**Second 9 weeks**

Unit 2: Support and Movement  
Chapters 6 – 8  
Objectives 14 – 16

Unit 3: Integration and Coordination  
Chapters 9 – 11  
Objectives 17 – 18

**Third 9 weeks**

Unit 4: Transport  
Chapters 12 – 14  
Objectives 19 – 21

Unit 5: Absorption and Excretion  
Chapter 15  
Objective 22

**Fourth 9 weeks**

Unit 5: Absorption and Excretion  
Chapters 16 – 17  
Objectives 23 – 24

Unit 6: The Human Life Cycle  
Chapters 19 – 20  
Objectives 25 – 27

# Lawton Public Schools

## ANATOMY & PHYSIOLOGY PACING CALENDAR

*Revised April 2008*

### 1<sup>st</sup> Quarter

<b>Local Objectives: Previously determined by the district</b>			<b>Section</b>	<b>Chapter</b>
1	First day of school	Introduction of class/course includes syllabus and rules; Define anatomy/physiology; Assess basic data keeping skills to include data tables, graphing, and ability to perform math computations		
1	Week 1 –2 5 – 7 Days	Define anatomy/physiology; Discuss scientific investigation using scientific method; Perform a scientific investigation (ex. STEP test to measure cardiovascular fitness)	Unit 1	1
1, 2	Week 2 1 – 2 Days	Define anatomy/physiology; Discuss levels of organization; Discuss characteristics of life and requirements for life; Define homeostasis and provide examples; Distinguish between positive and negative feedback	Unit 1	1
3, 4	Week 3 2 – 3 Days	Identify major body cavities; Introduce 11 body systems to be used as study focus; Suggest use of mnemonics to help recall packets of information, might start with C. RED MEN IRIS to help recall 11 body systems	Unit 1	1
<b>Local Objectives:</b>			<b>Section</b>	<b>Chapter</b>
4	Week 3 – 4 2 – 3 Days	Define anatomical position; Apply the use of relative position terms to relate body parts to each other; Identify body sections and body regions	Unit 1	1
5	Week 4 3 – 5 Days	Introduce chemistry of life; Discuss the atom and its structural makeup to include its relationship to elements, compounds, and chemical bonding; Discuss chemical reactions; Identify the macromolecules of life to include carbohydrates, lipids, proteins, and nucleic acids	Unit 1	2
7, 8, 9	Week 5 –6 6 – 8 Days	Identify cell structures and their function; Concentrate on membrane's structure and function as involved with cellular transport; Identify types of active and passive transport; Laboratory activity over cellular function (ex. Osmosis)	Unit 1	3
6	Week 6 – 7 3 – 5 Days	Describe cell life cycle; Provide exposure to cloning and stem cell research; Discuss cell differentiation; Laboratory activity over stages of the cell cycle (ex. Microscopic identification of the stages of the cell cycle from a representative tissue)	Unit 1	3
<b>Local Objectives:</b>			<b>Section</b>	<b>Chapter</b>
8, 10, 11	Week 7 –8 5 – 6 Days	Discuss metabolic reactions; Identify energy source for cellular reactions specifically cellular respiration; Discuss enzymes and their role in cellular metabolism; Review nucleic acids and their role in protein synthesis	Unit 1	4
12	Week 8 – 9 5 Days	Explain importance of genes as they determine all cellular activity use specific examples (ex. Genes that determine blood types)	Unit 1	4

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**2<sup>nd</sup> Quarter**

<b>Local Objectives: Previously determined by the district</b>			<b>Section</b>	<b>Chapter</b>
13	Week 1 4 - 5 Days	Define tissue; Identify structure, function, and location of epithelial, connective, and muscular tissue; Familiarize with function and location of nervous tissue	Unit 1	5
14	Week 2 – 3 7 – 10 Days	Cover integumentary system; Discuss skin function and structure to include burns and skin color; Discuss the structure and function of hairs, nails, and glands of the skin; Discuss conditions that affect the integumentary system; Laboratory activity (ex. microscopic evaluation of light and dark skin)	Unit 2	6
15	Week 4 – 6 12 – 15 Days	Cover skeletal system; Discuss structure and function of skeletal system; Students learn names of all bones; Students identify significant bony features; Discuss fractures and value of x-rays; Discuss joint types; Discuss conditions that affect the skeletal system; Laboratory activity (ex. forensics as used to identify a skeleton or x-ray practical to ID bones as seen in x-ray)	Unit 2	7
16	Week 6 – 8 12 – 15 Days	Cover muscular system; Discuss structure and function of the muscular system; Discuss skeletal muscle contraction; Discuss muscle origin and insertion; Student should be able to identify several muscles as to their origin, insertion, and action; Introduce mnemonic LAD SNOR to help recall seven criteria used in naming of muscles; Discuss conditions that affect the muscular system; Laboratory activity (ex. Facial expressions as made by muscles of facial expression or Wooden limbs using rubber bands as muscles)	Unit 2	8
<b>Local Objectives:</b>			<b>Section</b>	<b>Chapter</b>
1–16	Week 9 5 Days	Semester test with review		1 – 8

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**3<sup>rd</sup> Quarter**

<b>Local Objectives: Previously determined by the district</b>			<b>Section</b>	<b>Chapter</b>
17	Week 1 – 3 12 – 15 Days	Cover nervous system; Discuss structure and function of nervous tissue; Describe how nerve impulse occur; Describe normal nervous and reflex pathways; Describe structure and function of nervous system organs; Discuss senses and associated sense organs; Discuss effects of drugs on system; Discuss conditions that affect system; Laboratory activity ( ex. dissection of sheep eye)	Unit 3	9 – 10
18	Week 4 4 – 5 Days	Cover endocrine system; Discuss structure and function of system; Discuss hormones as to production location and function; Relate homeostasis where to two opposing hormones such as those regulating blood glucose; Discuss conditions that affect system	Unit 3	11
19, 20	Week 5 – 8 12 – 15 Days	Cover circulatory system; Discuss structure and function of system; Describe blood and its components; Describe the flow of blood through system to include study of blood vessels and heart; Discuss blood pressure and blood clotting; Discuss blood types and genetics of blood types; Discuss condition that affect system; Laboratory activity (ex. Blood typing simulation)	Unit 4	12 – 13
21	Week 8 – 9 4 – 7 Days	Cover immune system with study of lymphatic structures; Discuss structure and function of system; Discuss conditions that affect system with special emphasis on HIV and AIDS; Laboratory activity (ex. Disease transmission)	Unit 4	14

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**4<sup>th</sup> Quarter**

<b>Local Objectives: Previously determined by the district</b>			<b>Section</b>	<b>Chapter</b>
22	Week 1 – 2 7 – 10 Days	Cover digestive system; Discuss digestive system structures and functions; Discuss nutrition and the classes of food; Discuss conditions that affect the digestive system; Laboratory activity (ex. Lactose intolerance)	Unit 4	15
23	Week 3 – 4 7 – 10 Days	Cover respiratory system; Discuss respiratory system structures and function; Discuss conditions that affect the respiratory system; Laboratory activity (ex. Lung capacity)	Unit 4	16
24	Week 4 – 5 7 – 10 Days	Cover excretory system with concentration on urinary organs; Discuss process by which kidneys produce urine; Discuss conditions affecting system	Unit 4	17 - 18
25	Week 5 – 6 7 – 10 Days	Cover male and female reproductive systems; Discuss structure and function of reproductive system; Discuss conditions affecting system	Unit 6	19
<b>Local Objectives:</b>			<b>Section</b>	<b>Chapter</b>
3, 13 – 25	Week 7 – 8 7 Days	Lab dissection of comparable mammal; Lab should include a practical requiring students to identify mammal's sex while concentrating on internal anatomy		
26 – 27	Week 8 3 Days	Discuss fertilization and development from conception to child birth; Discuss methods used to produce fertilized offspring and methods of contraception	Unit 6	20
1 – 27	Week 9 3 – 5 Days	Semester test with review		