

Sand Springs Public Schools

Human Physiology Local Objectives

1st Nine Weeks

Local Objectives	Chapters\Other
<p>Student will practice basic orientation terminology.</p> <p>Student will list levels of organization within the body.</p> <p>The student will identify body cavities and membranes.</p> <p>The student will correctly identify homeostatic controls.</p> <p>The student will participate in a rabbit dissection.</p> <p>The student will practice naming and identifying organs, organ systems and body cavities.</p>	<p>Chapter 1 Orientation</p>
<p>The student will participate in discussing chemical bonding.</p> <p>The student will participate in a laboratory activity focused on factors altering diffusion rates.</p> <p>The student will identify the four organic families.</p> <p>The student will list examples of each family.</p>	<p>Chapters 2 Basic Chemistry</p>
<p>The student will show a basic understand of cell membrane structure.</p> <p>The student will identify basic cell organelles.</p> <p>The student will correctly match organelles with functions.</p> <p>The student will model a basic understanding of DNA structure, transcription & translation.</p>	<p>Chapters 3 Cells/Membranes</p>
<p>The student will list the basic characteristics of each tissue.</p> <p>The student will identify the various types of human tissue in the laboratory.</p> <p>The student will draw and label fifty microscope tissue samples.</p> <p>The student will identify the organ from which a tissue sample was taken.</p>	<p>Chapter 4 Tissues</p> <p>End of 1st 9Weeks</p>

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2nd Nine Weeks

Local Objectives	Chapters\Other
<p>Students will participate in lab activities articulating bones.</p> <p>Students will discuss the classification of bones.</p> <p>Students will identify bony tissue types.</p> <p>Students will discuss bone formation and remodeling.</p> <p>Students will name types of bone cells and function of each.</p> <p>Students will report on bone disease and repair processes.</p>	<p>Chapter 6 Bony tissue</p>
<p>Students will review and label major bones of the body.</p> <p>Students will identify bones, sutures, foramen of the skull.</p> <p>Students will identify disarticulated bones.</p> <p>Students will identify major surface features on most bones.</p>	<p>Chapter 7 The skeleton</p>
<p>The student will identify types of muscle tissue.</p> <p>The student will examine and models of muscle groups.</p> <p>The student will discuss the function of each category of muscle.</p> <p>The student will relate action potential to muscle contraction.</p> <p>The student will model the sliding filament theory.</p> <p>The student will place the physiological steps of a muscle contraction in the correct sequence.</p>	<p>Chapter 9 Muscle Tissue</p>
<p>The student will identify major muscles of the head, neck and thorax.</p> <p>The student will identify major muscles of the arms & legs.</p> <p>Students will identify origin and insertion for major muscle groups.</p>	<p>Chapter 10 Muscle groups</p>
<p>The student will identify the major lymphatic vessels.</p> <p>The student will identify and locate the various lymphoid organs.</p> <p>The student will model the structure of a lymph node and discuss circulation as it pertains to the lymphatic system.</p>	<p>Chapter 20 Lymphatics</p>
<p>The student will distinguish between general and specific defenses.</p> <p>The student will identify the role of various immune cells.</p> <p>The student will explain the role of inflammation in immunity.</p> <p>The student will model antigen/antibody reactions.</p> <p>The student will relate the lymphatic system to the immune and cardiovascular system.</p>	<p>Chapter 21 Immunity</p> <p>End of Semester</p>

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3rd Nine Weeks

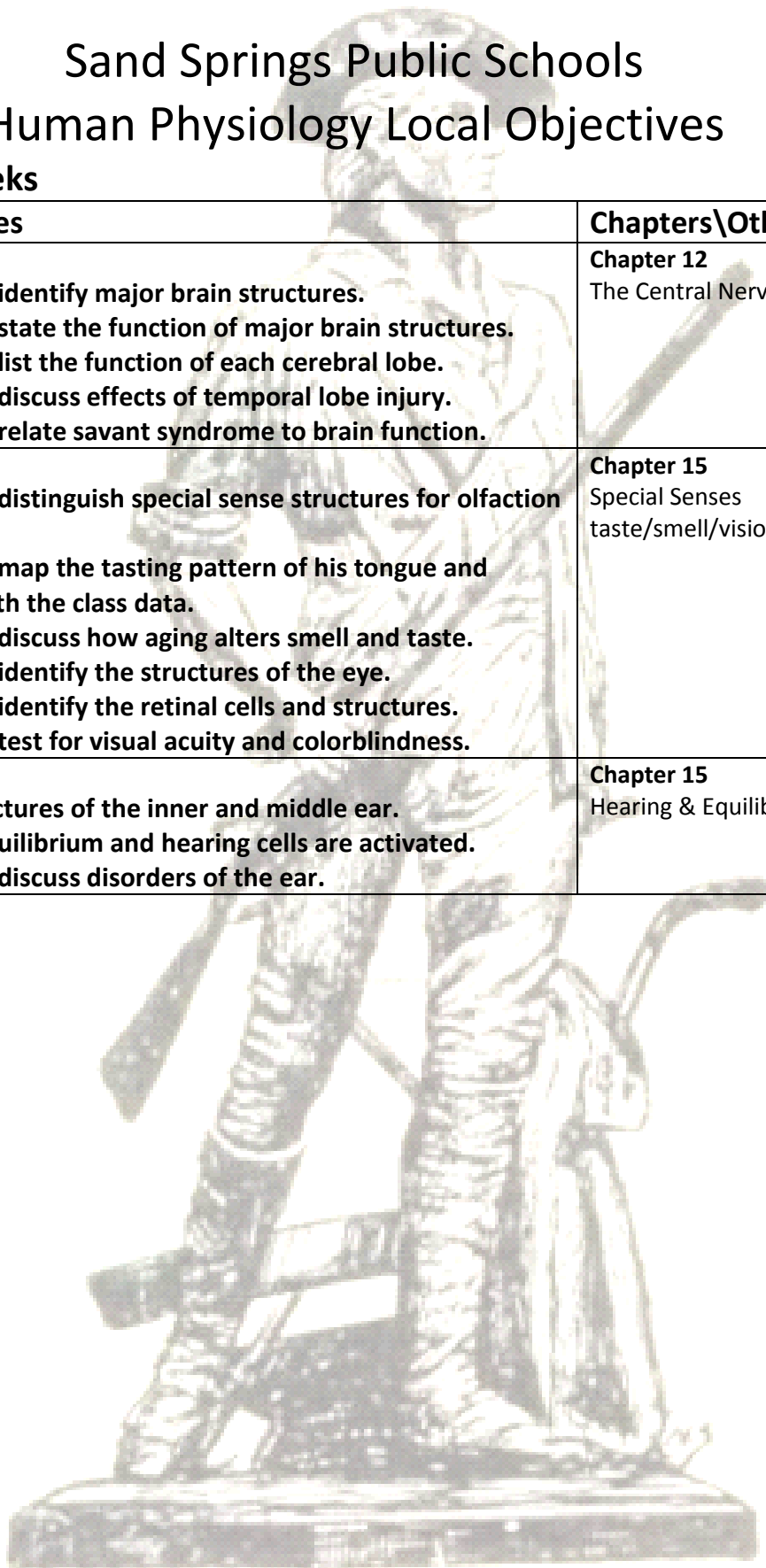
Local Objectives	Chapters\Other
<p>The student will discuss the components, characteristics and functions of blood.</p> <p>The student will describe the function of red blood cells.</p> <p>The student will describe the function of various white cells.</p> <p>The student will learn to distinguish blood types.</p> <p>The student will describe the process of coagulation.</p>	<p>Chapter 17 Blood</p>
<p>The student will distinguish between venous and arterial flow.</p> <p>The student will identify & locate the major blood vessels.</p> <p>The student will discuss the development of plaque in vessels and the danger it poses.</p>	<p>Chapter 19 Blood vessels</p>
<p>The student will identify heart chambers, valves and vessels.</p> <p>The student will explain the path of blood through the cardiovascular system.</p> <p>The student will identify the heart activity for each wave on an EKG.</p> <p>The student will discuss the relationship between blood flow, pressure and resistance.</p> <p>The student will measure systolic and diastolic pressure.</p> <p>The student will relate coronary circulation to a heart attack.</p>	<p>Chapter 18 The Heart</p>
<p>The student will distinguish between the branches of the nervous system.</p> <p>The student will discuss the neuron action potential.</p> <p>The student will explain the organization of neural pools & distinguish the function of various circuits.</p> <p>The student will model the neural synapse.</p>	<p>Chapter 11 Basic Nervous System</p>
<p>The student will identify types of neurons by shape.</p> <p>The student will distinguish the function of neuroglia.</p> <p>The student will identify the components of the reflex arc.</p> <p>The student will compare somatic and autonomic divisions.</p> <p>The student will describe the actions of the parasympathetic and sympathetic system branches.</p>	<p>Chapter 13,14 Peripheral & Autonomic</p> <p>End of 3rd 9Weeks</p>

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Human Physiology Local Objectives

4th Nine Weeks

Local Objectives	Chapters\Other
<p>The student will identify major brain structures.</p> <p>The student will state the function of major brain structures.</p> <p>The student will list the function of each cerebral lobe.</p> <p>The student will discuss effects of temporal lobe injury.</p> <p>The student will relate savant syndrome to brain function.</p>	<p>Chapter 12 The Central Nervous System</p>
<p>The student will distinguish special sense structures for olfaction and gustation.</p> <p>The student will map the tasting pattern of his tongue and compare that with the class data.</p> <p>The student will discuss how aging alters smell and taste.</p> <p>The student will identify the structures of the eye.</p> <p>The student will identify the retinal cells and structures.</p> <p>The student will test for visual acuity and colorblindness.</p>	<p>Chapter 15 Special Senses taste/smell/vision</p>
<p>Identify the structures of the inner and middle ear.</p> <p>Describe how equilibrium and hearing cells are activated.</p> <p>The student will discuss disorders of the ear.</p>	<p>Chapter 15 Hearing & Equilibrium</p>



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4th Nine Weeks

Local Objectives	Chapters\Other
<p>The student will identify and locate various respiratory structures.</p> <p>The student will relate the gas exchange in lungs and tissue based on diffusion and concentration.</p> <p>The student will determine his respiratory volumes.</p>	<p>Chapter 22 Respiratory system</p>
<p>The student will locate kidneys and identify external vessels.</p> <p>The student will dissect and identify internal kidney structures.</p> <p>The student will discuss glomerular filtration & urine formation.</p>	<p>Chapter 25 Urinary system</p>
<p>The student will identify male reproductive structures.</p> <p>The student will place the portions of the duct system in sequence.</p> <p>The student will locate & list the function of accessory organs.</p> <p>The student will discuss the process of spermatogenesis.</p> <p>The student will discuss the regulation of male sexual response.</p>	<p>Chapter 27 Reproductive System Male</p>
<p>The student will identify & locate female reproductive structures.</p> <p>The student will discuss the stages of follicle development and ovulation.</p> <p>The student will identify the origin and target of female hormones.</p> <p>The student will distinguish the role of various contraceptives.</p> <p>The student will discuss the effects of sexually transmitted diseases on various body systems.</p>	<p>Chapter 27 Reproductive system Female</p> <p>Comprehensive Final</p>

**If time becomes limited, chapters 22 & 25 may be abbreviated or eliminated per instructors' decision.*

