

THESE ARE THE IMPORTANT CONCEPTUAL UNDERSTANDINGS I NEED TO MASTER FOR THIS UNIT:

<p><b>A. Demonstrates an understanding of the functions for the organs and structures of the circulatory system.</b></p> <p>" I CAN... "</p>	<p><i>RESOURCES</i> THAT MAY SUPPORT MY LEARNING:</p>	<p><i>RESULTS/SCORES</i> FROM LEARNING ASSESSMENTS</p>	<p><i>MASTERY REFLECTION:</i> WHAT DO I STILL NEED TO MASTER BEFORE THE EXAM? (What is your strategy for <u>improvement</u>?)</p> <p><b>1 ON 1 : HELP</b> : Most effective <u>DURING</u> instruction... do not wait until the end of the unit!</p>
<ul style="list-style-type: none"> <li>• Identify function and composition of blood</li> <li>• Contrast arteries, capillaries, veins, and venules. Describe the function of the coronary arteries. Explain why veins require valves.</li> <li>• Describe the function of the lung in circulatory system function.</li> <li>• Describe the function of the heart in circulatory system function. Contrast the right atrium, right ventricle, left atrium, and left ventricle.</li> <li>• Plot the path of blood through the body in sequential order starting with and ending at the aorta.</li> <li>• Locate when and where blood is oxygenated or deoxygenated</li> <li>• Contrast systolic vs. diastolic blood pressure.</li> <li>• Identify normal blood pressure measurement</li> </ul> <p>Organs/parts that need to be identified and the function explained:</p> <ol style="list-style-type: none"> <li>1. Superior/inferior vena cava</li> <li>2. Rt./Lt atrium</li> <li>3. Rt./Lt. ventricle</li> <li>4. pulmonary arteries</li> <li>5. pulmonary veins</li> <li>6. aorta</li> <li>7. blood - RBC, WBC, platelets, plasma</li> <li>8. major valves</li> <li>9. blood vessels</li> </ol>	<p><b>TEXT:</b></p> <ul style="list-style-type: none"> <li>• Sect 22.1 2<sup>nd</sup> (or) 23.1 3<sup>rd</sup> <i>General functions</i></li> <li>• Sect 22.2 - 22.4 2<sup>nd</sup> (or) 23.2 – 23.4 3<sup>rd</sup> <i>General components</i></li> <li>• Sect 22.7 2<sup>nd</sup> (or) 23.7 3<sup>rd</sup> <i>Mammalian system and circulatory pattern (key fig 2_12)</i></li> </ul> <p>• <b>On weebly/edline:</b> Human Body Supplemental Textbook Reading: <i>Circulatory System</i></p> <p>* <b>Essential Study Partner:</b></p> <ul style="list-style-type: none"> <li>• Unit: Animals</li> <li>Topic: Transport→ <ul style="list-style-type: none"> <li>• Human heart</li> <li>• Vessels &amp; Pressure</li> <li>• Blood</li> </ul> </li> </ul> <p>* other documents and links posted in Course Documents or provided by the instructional team.</p>	<p>SELF ASSESSMENT - Based on the Body System Mastery Quiz provided by the instructional team</p> <hr/> <p>Unit Exam</p>	<p>INSTRUCTOR VERIFICATION:</p>

<p><b>B. Demonstrates an understanding of the functions for the organs and structures of the digestive system.</b></p> <p><b>" I CAN... "</b></p>	<p><b>RESOURCES THAT MAY SUPPORT MY LEARNING:</b></p>	<p><b>RESULTS/SCORES FROM LEARNING ASSESSMENTS</b></p>	<p><b>MASTERY REFLECTION: WHAT DO I STILL NEED TO MASTER BEFORE THE EXAM? (What is your strategy for <u>improvement</u>?)</b></p> <p><b>1 ON 1 : Most effective <u>DURING</u> instruction... HELP do not wait until the end of the unit!</b></p>												
<p>* <i>Contras processes of digestion vs. absorption.</i></p> <p>* <i>Contrast mechanical and chemical digestion &amp; provide examples of each.</i></p> <p>* <i>Contrast the function of amylases,nproteases, and lipases.</i></p> <p>* <i>Describe the events which occur in the mouth which aid in both digestion and absorption.</i></p> <p>* <i>Identify function of the esophagus and describe Peristalsis</i></p> <p>* <i>Identify what is digested in stomach</i></p> <p>* <i>Describe chime?</i></p> <p>* <i>Explain how HCl, pepsin, and mucous aid in Dig. processes within stomach. Identify ulcer &amp; cause</i></p> <p>* <i>Identify what is dig./ Abs. in small intestine</i></p> <p>* <i>ID roles of Bile and bicarbonate in dig process</i></p> <p>* <i>Describe the structure/function of villi.</i></p> <p>* <i>Identify what is dig./ Abs. in largl intestine</i></p> <p>* <i>explain benefits to dig process that bacteria and fiber provide</i></p> <p>* <i>Contrast relative lengths of small/large intestine</i></p> <p>* <i>Identify causes of malfunctions such as diarrhea or constipation</i></p> <p>* <i>Identify any roles of pancreas, liver, and gallbladder play in digestion and absorption?</i></p> <p>Organs/parts that need to be identified and the function explained:</p> <table border="0" style="width: 100%;"> <tr> <td>* esophagus</td> <td>* pancreas</td> </tr> <tr> <td>* epiglottis</td> <td>* small intestine</td> </tr> <tr> <td>* salivary glands</td> <td>* large intestine</td> </tr> <tr> <td>* stomach</td> <td>* appendix</td> </tr> <tr> <td>* liver</td> <td>* rectum</td> </tr> <tr> <td>* gallbladder</td> <td>* enzymes responsible for digestion</td> </tr> </table>	* esophagus	* pancreas	* epiglottis	* small intestine	* salivary glands	* large intestine	* stomach	* appendix	* liver	* rectum	* gallbladder	* enzymes responsible for digestion	<p><b>TEXT:</b></p> <ul style="list-style-type: none"> <li>• Sect 23.3 2<sup>nd</sup> (or) 24.3 3<sup>rd</sup> <i>Evolution of dig. systems</i></li> <li>• Sect 22.2 - 22.4 2<sup>nd</sup> (or) 23.2 – 23.4 3<sup>rd</sup> <i>Vert. Systems (key fig 2_6)</i></li> <li>• Sect 23.5 - 23.7 2<sup>nd</sup> (or) 24.5 – 24.7 3<sup>rd</sup> <i>Struct. &amp; func. of organs (key figs: 2_.6, 2_.14)</i></li> <li>• Sect 23.9 2<sup>nd</sup> (or) 24.9 3<sup>rd</sup> <i>Accessory organ struc. &amp; func. (key figs: 2_.17, 2_.18)</i></li> <li>• <b>On weebly/edline:</b> Human Body Supplemental Textbook Reading: <i>Digestive System</i></li> </ul> <p>* <b>Essential Study Partner:</b></p> <ul style="list-style-type: none"> <li>• Unit: Animals</li> <li>Topic: Digestion→</li> <li>• All sections</li> </ul> <p>* other documents and links posted in Course Documents or provided by the instructional team.</p>	<p>SELF ASSESSMENT - Based on the Body System Mastery Quiz provided by the instructional team</p> <hr/> <p>Unit Exam</p>	<p>INSTRUCTOR VERIFICATION:</p>
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* stomach	* appendix														
* liver	* rectum														
* gallbladder	* enzymes responsible for digestion														

<p><b>C. Demonstrates an understanding of the functions for the organs and structures of the respiratory system.</b></p> <p>" I CAN... "</p>	<p><i>RESOURCES</i> THAT MAY SUPPORT MY LEARNING:</p>	<p><i>RESULTS/SCORES</i> FROM LEARNING ASSESSMENTS</p>	<p><i>MASTERY REFLECTION:</i> WHAT DO I STILL NEED TO MASTER BEFORE THE EXAM? (What is your strategy for <u>improvement</u>?)</p> <p><b>1 ON 1 : HELP</b> : Most effective <u>DURING</u> instruction... do not wait until the end of the unit!</p>										
<ul style="list-style-type: none"> <li>Identify the function of the resp. system?</li> <li>Explain gas exchange in the lungs</li> <li>Describe transportation of oxygen/CO<sub>2</sub></li> <li>Describe the mechanism of breathing.</li> <li>Identify the role of the diaphragm and describe its movement related to inhalation/exhalation?</li> </ul> <p>Organs/parts that need to be identified and the function explained:</p> <table border="0"> <tr> <td>nasal cavity</td> <td>bronchus</td> </tr> <tr> <td>pharynx</td> <td>bronchiole</td> </tr> <tr> <td>larynx</td> <td>alveoli</td> </tr> <tr> <td>trachea</td> <td>diaphragm</td> </tr> <tr> <td>lung</td> <td></td> </tr> </table>	nasal cavity	bronchus	pharynx	bronchiole	larynx	alveoli	trachea	diaphragm	lung		<p><b>TEXT:</b></p> <ul style="list-style-type: none"> <li>Sect 22.12 2<sup>nd</sup> (or) 23.12 3<sup>rd</sup> <i>Vert. Resp. (key fig 2_.19)</i></li> <li>Sect 22.13 2<sup>nd</sup> (or) 23.13 3<sup>rd</sup> <i>Mammalian System</i></li> <li>Sect 22.14 2<sup>nd</sup> (or) 23.14 3<sup>rd</sup> <i>Gas Exchange Process (key fig 2_.25)</i></li> </ul> <p><b>* Essential Study Partner:</b></p> <ul style="list-style-type: none"> <li>Unit: Animals Topic: Respiration→</li> <li>All sections</li> </ul> <p>* other documents and links posted in Course Documents or provided by instructional team.</p>	<p>SELF ASSESSMENT - Based on the Body System Mastery Quiz provided by the instructional team</p> <p>Unit Exam</p>	<p>INSTRUCTOR VERIFICATION</p>
nasal cavity	bronchus												
pharynx	bronchiole												
larynx	alveoli												
trachea	diaphragm												
lung													
<p><b>D. Demonstrates an understanding of the functions for the organs and structures of the excretory (urinary) system.</b></p> <p>" I CAN... "</p>	<p><i>RESOURCES</i> THAT MAY SUPPORT MY LEARNING:</p>	<p><i>RESULTS/SCORES</i> FROM LEARNING ASSESSMENTS</p>	<p><i>MASTERY REFLECTION:</i> WHAT DO I STILL NEED TO MASTER BEFORE THE EXAM? (What is your strategy for <u>improvement</u>?)</p> <p><b>1 ON 1 : HELP</b> : Most effective <u>DURING</u> instruction... do not wait until the end of the unit!</p>										
<ul style="list-style-type: none"> <li>Identify role of the kidneys in maintaining homeostasis</li> <li>Describe the structure of the kidney</li> <li>Describe the structure and function of a nephron?</li> <li>Explain the process of filtration.</li> <li>Explain reabsorption and secretion (formation of urine)</li> <li>Explain how urine is eliminated from the body</li> </ul> <p>Organs/parts that need to be identified and the function explained</p> <ol style="list-style-type: none"> <li>kidney</li> <li>nephron (as a whole)</li> <li>bowman's capsule</li> <li>glomerulus</li> <li>renal artery</li> <li>loop of henle</li> <li>ureter</li> </ol>	<p><b>TEXT:</b></p> <ul style="list-style-type: none"> <li>Sect 23.10 2<sup>nd</sup> (or) 24.10 3<sup>rd</sup> <i>Homeostasis – Nitrogenous wastes.</i></li> <li>Sect 23.13 2<sup>nd</sup> (or) 24.13 3<sup>rd</sup> <i>Mammalian Kidney Struct. &amp; Funct. (key fig 2_.29)</i></li> </ul> <p><b>* Essential Study Partner:</b></p> <ul style="list-style-type: none"> <li>Unit: Animals Topic: Osmoregulation → All sections</li> </ul> <ul style="list-style-type: none"> <li>* other documents and links posted in Course Documents or provided by the instructional team.</li> </ul>	<p>SELF ASSESSMENT - Based on the Body System Mastery Quiz provided by the instructional team</p> <p>Unit Exam</p>	<p>INSTRUCTOR VERIFICATION:</p> <p style="text-align: right;"><i>The Extra Degree</i></p>										

<p><b>E. Demonstrates an understanding of the functions for the structures of the brain and general nervous system.</b></p> <p><b>" I CAN... "</b></p>	<p><b>RESOURCES THAT MAY SUPPORT MY LEARNING:</b></p>	<p><b>RESULTS/SCORES FROM LEARNING ASSESSMENTS</b></p>	<p><b>MASTERY REFLECTION: WHAT DO I STILL NEED TO MASTER BEFORE THE EXAM? (What is your strategy for <u>improvement</u>?)</b></p> <p><b>1 ON 1 : Most effective <u>DURING</u> instruction... HELP do not wait until the end of the unit!</b></p>
<ul style="list-style-type: none"> <li>• Describe the function of a neuron as well as its structures: dendrites, axon, and synaptic terminal structures of the neuron.</li> <li>• Describe the function of neurotransmitters</li> <li>• Contrast the functions of the pons, midbrain, medulla, thalamus, and the hypothalamus.</li> <li>• Contrast the functions of the cerebellum and the cerebrum.</li> <li>• Contrast the functions of the frontal, parietal, occipital, and temporal lobes of the cerebrum.</li> <li>• Identify the function of the corpus callosum</li> <li>• Identify the ventricle and its purpose</li> <li>• Identify the function of the spinal cord?</li> <li>• Contrast the roles of the sympathetic and parasympathetic nervous systems.</li> <li>• Contrast the roles of the peripheral and the central nervous systems.</li> </ul>	<p><b>TEXT:</b></p> <ul style="list-style-type: none"> <li>• Sect 25.2- 4,25.7- 10 2<sup>nd</sup> ed or) 26.2- 4, 26.7- 10 3<sup>rd</sup> ed (key figs: 2_.5, 2_.8, 2_.15, 2_.16,, 2_..22,)</li> </ul> <p><b>* Essential Study Partner:</b></p> <ul style="list-style-type: none"> <li>• Unit: Animals</li> <li>Topic: Nervous→</li> <li>• All sections</li> </ul> <p>* other documents and links posted in Course Documents or provided by the instructional team.</p>	<p>SELF ASSESSMENT - Based on the Body System Mastery Quiz provided by the instructional team</p> <hr/> <p>Unit Exam</p>	<p>INSTRUCTOR VERIFICATION</p>

## 2. SCIENTIFIC SKILLS & APPLICATION OF RESEARCH

<p>A. <b>Demonstrates the ability to identify and describe the structure and function of anatomical structures of a representative mammalian specimen - the pig.</b></p> <p>B. <b>Demonstrates knowledge and practice of safe, respectful dissection techniques.</b></p> <p><b>" I CAN.. "</b></p>	<p>Possible METHODS OF ASSESSMENT</p>																												
<p>A. IDENTIFY STRUCTURES AND FUNCTIONS OF VITAL ORGANS IN MAMMALS VIA DISSECTION OF THE FETAL PIG:</p> <p>*clearly demonstrate an ability to dissect, locate, and identify the following structures or regions of the fetal pig:</p> <table border="0"> <tr> <td>-small intestine</td> <td>-rib cage</td> </tr> <tr> <td>-large intestine</td> <td>-bladder</td> </tr> <tr> <td>-stomach</td> <td>-kidneys</td> </tr> <tr> <td>-esophagus</td> <td>-spleen</td> </tr> <tr> <td>-liver</td> <td>-diaphragm</td> </tr> <tr> <td>-pancreas</td> <td>-lungs</td> </tr> <tr> <td>-gallbladder</td> <td>-trachea</td> </tr> <tr> <td>-The heart</td> <td>-Left Ventricle</td> </tr> <tr> <td>-Coronary Arteries</td> <td>-Left Atrium</td> </tr> <tr> <td>-Aorta</td> <td>-Right Ventricle</td> </tr> <tr> <td>-Vena Cava</td> <td>-Right Atrium</td> </tr> <tr> <td>-Pulmonary Artery</td> <td></td> </tr> </table> <table border="0"> <tr> <td>- abdominal cavity</td> <td>- Anterior/posterior</td> </tr> <tr> <td>- thoracic cavity</td> <td>- dorsal/ventral</td> </tr> </table> <p>* <b>treat my specimen with RESPECT and operate an efficient, safe, and clean lab station on a daily basis during this unit.</b></p> <p>* <b>return all dissection tools CLEAN, dry, and ready for use by the next class period (table is DRY and your sink is CLEAR of solid materials.)</b></p>	-small intestine	-rib cage	-large intestine	-bladder	-stomach	-kidneys	-esophagus	-spleen	-liver	-diaphragm	-pancreas	-lungs	-gallbladder	-trachea	-The heart	-Left Ventricle	-Coronary Arteries	-Left Atrium	-Aorta	-Right Ventricle	-Vena Cava	-Right Atrium	-Pulmonary Artery		- abdominal cavity	- Anterior/posterior	- thoracic cavity	- dorsal/ventral	<p>Observation of dissection techniques</p> <p>Fetal Pig Dissection Assessment/Lab practical</p> <p>Unit Exam</p>
-small intestine	-rib cage																												
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