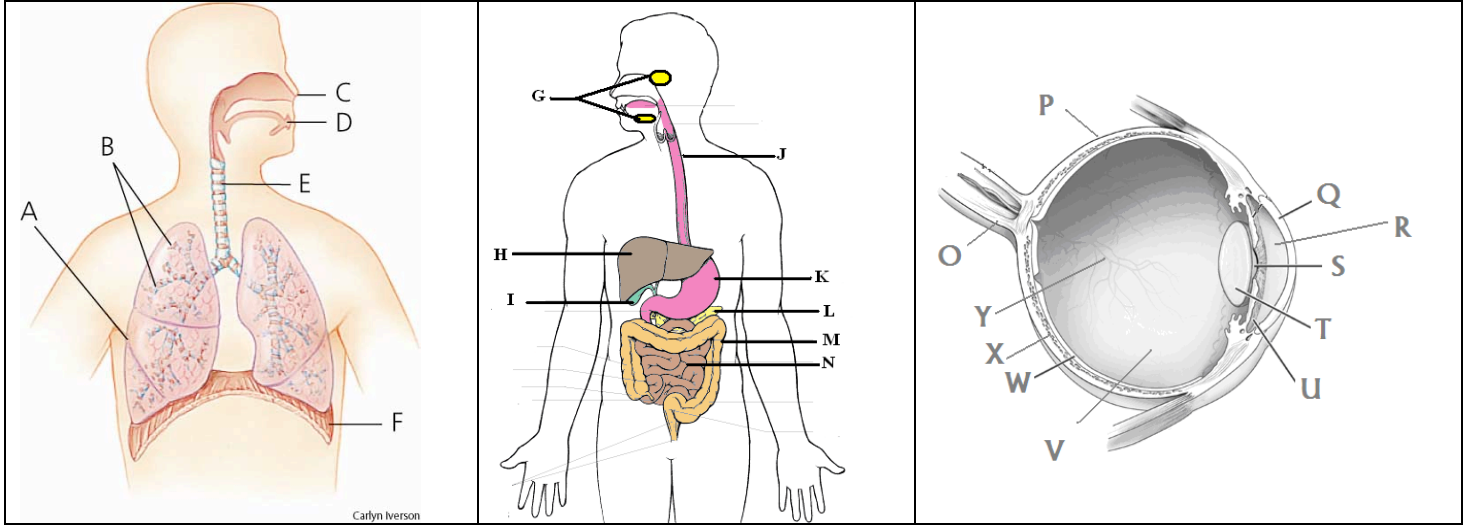


## Unit 9 Review Sheet #1

**Part 1:** Identify each of the following organs. Make sure you know what each organ does and what organ system it belongs to.

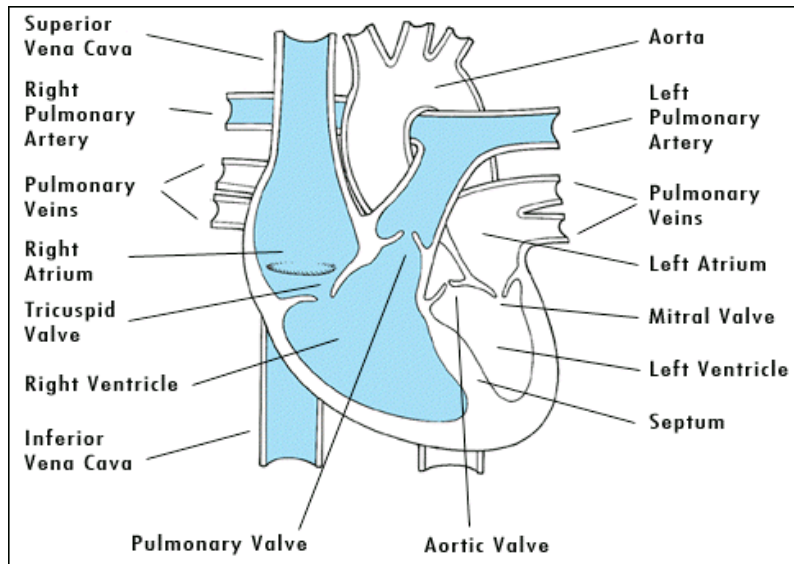


Letter	Name of Part	Function of Part (what does it do or describe it)	What Body system is it in?
A.	Lung	Brings oxygen into the alveoli so the oxygen can diffuse into the blood	Respiratory
B.	Brochioles	Pathways to the alveoli through the lungs	Respiratory
C.	Nose	Air enters	Respiratory
D.	Mouth	Mechanical digestion of food	Digestive
E.	Trachea	Brings air from nose to lungs	Respiratory
F.	Diaphragm	Smooth muscle that moves up and down to breath	Respiratory
G.	Salivary Glands	Produces saliva for chemical digestion in the mouth (salivary amylase digests starch and lysozymes kill bacteria)	Respiratory
H.	Liver	Makes bile to help with digestion of fats	Digestive
I.	Gallbladder	Stores bile made by the liver	Digestive
J.	Esophagus	Smooth muscle that brings food from mouth to stomach	Digestive
K.	Stomach	Adds stomach acid to food to break down food molecules, secretes pepsin to break down proteins	Digestive
L.	Pancreas	Makes enzymes to assist in digestion (ex: tripsin, lipase, amylase) Makes insulin and glucagon to regulate bloodsugar Makes sodium bicarbonate to neutralize stomach acid	Digestive
M.	Large Intestine	Absorb water and Vitamins K and B that bacteria made	Digestive
N.	Small Intestine	Digests rest of food and <b>absorbs</b> nutrients through villi	Digestive
O.	Optic Nerve	Sends signal from Eye to brain	Nervous
P.	Sclera	The white part of the eye, firm to give eye round shape	Nervous
Q.	Cornea	Focuses light coming into eye, outer most part of eye	Nervous
R.	Aqueous Humor	Fluid behind the cornea	Nervous
S.	Pupil	The hole that light enters through	Nervous
T.	Lens	Hard circular ball behind the iris that helps you focus on things far and near.	Nervous
U.	Iris	Colored part of the eye, dilates and contracts to allow more or less light through the retina	Nervous
V.	Vitreous Humor	The jelly-like substance in the eye, holds retina to back of eye	Nervous
W.	Retina	Made of nerve cells (rods and cons), light sensitive, relays message	Nervous
X.	Choroid	Nourishes retina. In animals contains tapetum to help animals see at night	Nervous
Y.	Blood Vessels	Supply eye with blood	Circulatory

## Part 2: Make sure you can identify all the labeled parts of the heart

Circulatory System:

1. Draw arrows showing the direction of blood through the heart.
2. Circle all the terms in the diagram below that carry oxygenated blood
3. Underline all the terms in the diagram below that carry deoxygenated blood.
4. What artery pumps blood to the lungs? **Pulmonary artery** Does the right or left atrium or ventricle pump blood to the lungs? **Right ventricle**
5. **Bad Question: Do NOT DO:** What vein pumps deoxygenated blood to the body? \_\_\_\_\_  
Does the right or left atrium or ventricle pump deoxygenated blood to the body? \_\_\_\_\_
6. The **Superior Vena Cava** is the vein that brings deoxygenated blood from body to the heart



## Part 3: Identify each structure.

<p><b>Hint:</b> A is where fat cells are located D is what red blood cells are made from</p>	<p>A <u>yellow marrow</u></p> <p>B <u>compact bone</u></p> <p>C <u>veins and arteries (through Haversian canals)</u></p> <p>D <u>red bone marrow</u></p> <p>E <u>Spongy bone</u></p> <p>What body system is this? <b>Skeletal</b></p>
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## Part 4: List as many structures as you can that are found in the Skin:

	<p><b>Epidermis:</b> <b>Dead skin cells, melanocytes, sweat pores</b></p> <p><b>Dermis:</b> <b>Blood vessels, hair follicle, sebaceous (oil) glands, smooth muscle, sweat glands</b></p>
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## Unit 9 Review Sheet #2

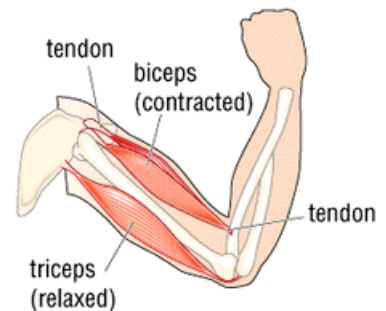
**Part 5: With what you know about human physiology what organ is being described below:**

Description	Structure/ Organ
Largest organ in the body. Produces melanin.	<b>Skin (Epidermis)</b>
Connects bones to other bones	<b>Ligaments</b>
Type of muscle that lines the walls of blood vessels	<b>Smooth Muscle</b>
Filters excess water and salts out of the blood.	<b>Kidney</b>
Makes blood cells (be specific)	<b>Red Bone Marrow</b>
Responsible for the mechanical digestion in the mouth.	<b>Teeth</b>
Small air sacs in the lungs	<b>Alveoli</b>
Contracting and relaxing this muscle causes the lungs to inflate and deflate	<b>Diaphragm</b>
Produces bile, which breaks down fats during digestion, bile is stored in the gallbladder.	<b>Liver</b>
Absorbs most nutrients and some water from the digestive system	<b>Small Intestine</b>
Absorbs lots of water from the digestive system creating solid waste.	<b>Large Intestine</b>
Made of smooth muscle tissue, where a baby grows and develops in females	<b>Uterus</b>
18 inch long tube that sperm travels through to get from testes to urethra	<b>Vas Deferens</b>
Tube that connects kidneys to bladder	<b>Ureter</b>
Connects muscle to bone	<b>Tendon</b>
Part of the eye used to regulate the amount of light that enters.	<b>Iris</b>
Where eggs are fertilized in females	<b>Fallopian Tubes</b>
Where sperm is made in males	<b>Testes</b>

**Part 5: Answer the following questions.**

A. Moving your arm is a voluntary decision. Explain how your body's arm bends up like in the picture on the right. Make sure to refer to the nervous, muscular, skeletal and integumentary systems.

**The nervous system sends a message using the motor division. This message tells the bicep to contract. The bicep is attached to the bone with a tendon. When the muscle contracts the tendon pulls the arm upward. The skin stretches in the correct direction to allow for movement.**



B. Explain how the respiratory and circulatory system work together to bring oxygen to your cells?

**The respiratory system brings oxygen into the lungs through the nose and trachea. The lungs are made of tiny air pockets called alveoli. The circulatory system has tiny capillaries wrapped around the alveoli. Diffusion brings air into the blood. Then the heart pumps to move the blood cells (and oxygen) around to the cells in your body.**

C. In what ways does the Lymphatic system work with the Circulatory System? **The circulatory system leaks a lot of blood, lymphatic system picks it up and puts it back into the circulatory system. The escaped fluid is called lymph.**

D. Explain how the digestive system, circulatory system and excretory system work together to maintain homeostasis of salt/water concentrations. **The digestive system allows water and salts to enter the body. Water is absorbed in the large intestine by the blood in the**

**circulatory system. The circulatory system filters water and salts through the kidneys. The kidneys get rid of extra water and salt, but let the rest stay in the blood.**

- E. What is the difference between the sensory nervous system and the motor nervous system? **The Motor division sends signals from the brain to the muscles to cause movement. The sensory division picks up information from sense organs and relays the information to the brain.**
- F. The air (oxygen) in your blood is 8-10% oxygen. The body needs 15% oxygen in the blood in order to feed the oxygen demands of Cellular Respiration. The air in our normal environment is 21% oxygen. Would diffusion still work well enough to feed the demands of cellular respiration if you were in a sealed room of 18% oxygen? Explain: **Diffusion works until it hits equilibrium, which would be the halfway point. Total oxygen in the air is 21%, in the blood is 10%. Half way between those is about 15.5% so it is enough oxygen. But if it goes down to 18%, the halfway point is 14% which is lower than what you need (15%)**
- G. How does the pancreas aid in digestion? **Adds enzymes that help break down food. Example: Insulin breaks down sugar.**
- H. What are villi? **Finger like tentacles in the small intestine** How do villi help in digestion? **Villi increase the surface area of the small intestine so you can have more surface to absorb nutrients**

**Overall Summary: This is a list of the basic knowledge that you should have to do well on the Unit 9 Test. You do not have to answer these questions, but you should know that you can answer these questions.**

**Integumentary:**

- What are the different layers of skin?
- What is sebum?
- How does the skin help regulate body temperature?

**Digestive:**

- Know all the parts and functions of the digestive system. Know where to find the organs in the pig.

**Circulatory:**

- What types of muscle are found in the circulatory system?
- Where do blood cells come from?
- What types of white blood cells are there?
- Know all the parts of the heart and if oxygenated or deoxygenated blood passes through.

**Skeletal:**

- What is the purpose of this system?
- What are the different parts and functions? (ex: ligaments)

**Muscular:**

- What are the 3 kinds of muscles and where are they found?
- Which are voluntary, which are involuntary?

**Respiratory:**

- What is diffusion? How does it work in the lungs?
- Why do the lungs inflate and deflate (how do you breath)

**Lymphatic**

- What is the purpose of the lymphatic system?
- What parts make up the lymphatic system and what do they do? What does the spleen do? (must identify spleen in pig)

**Nervous:**

- What is the difference between the sensory nervous system and the motor nervous system?
- Be able to label the parts of the eye.

**Excretory:**

- What are the parts of the excretory system, what do they do?
- If you drink a glass of water, what are all of the body systems and parts that water must go through to exit the body as urine?

**Reproductive:**

- Be able to name the parts and functions for males and females