

Name: Key

Date: _____

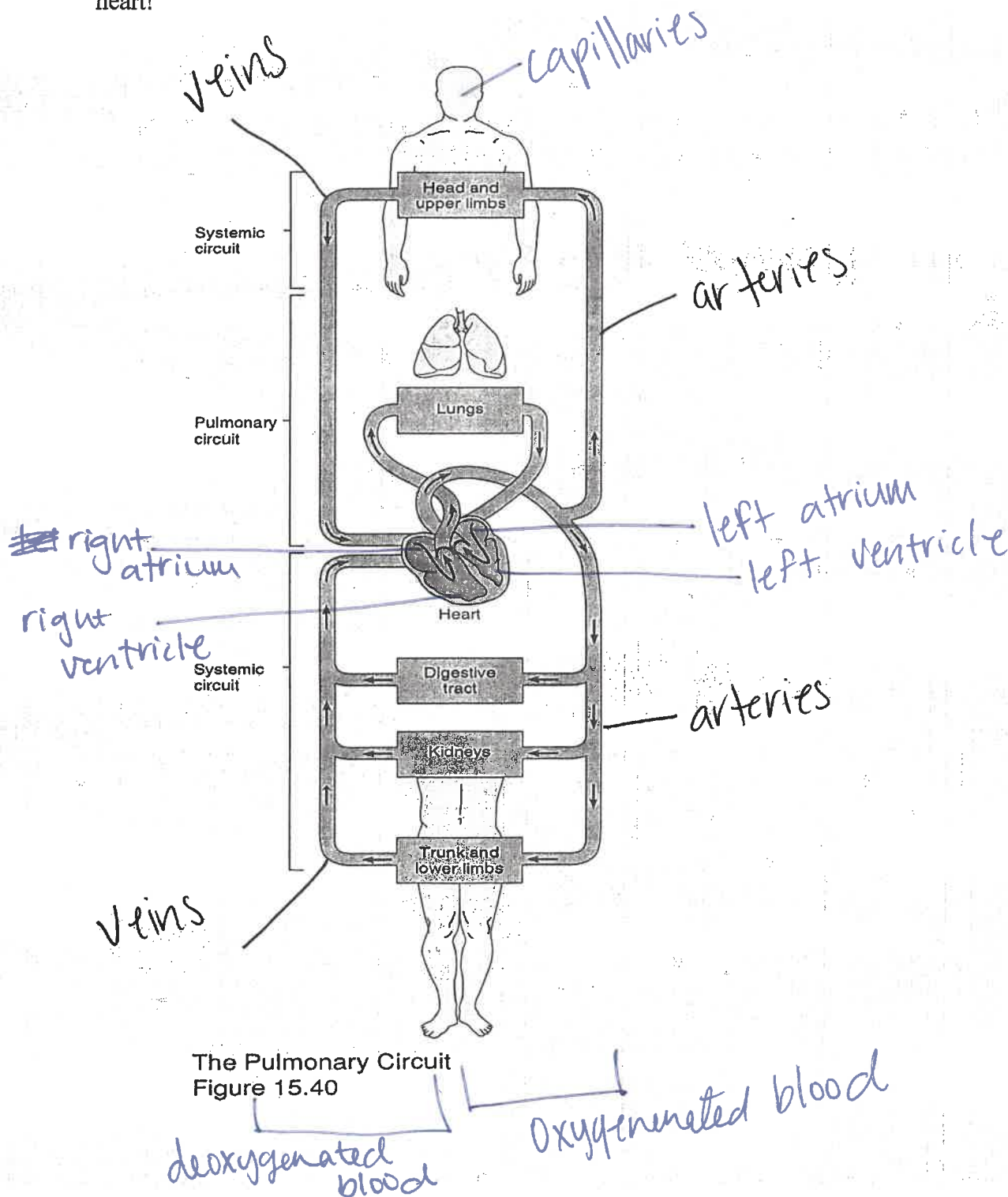
Period: _____

The Heart and Circulation

1. What is the difference between systemic and pulmonary circulation?

Pulmonary circulation is between the heart & lungs. Systemic is between the heart & whole body.

2. In the diagram below, color the oxygenated blood RED, and the deoxygenated blood BLUE. Be sure to label the three types of blood vessels: artery, vein, and capillary. Also, label the four chambers of the heart!



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Structure	Pulmonary or Systemic Circulation?	Function
Inferior Vena Cava	S	brings in deoxygenated blood from the lower body to R. atria
Superior Vena Cava	S	brings in deoxygenated blood from the upper body to R. atria
Right Atrium	S	receives deoxygenated blood from the body
Tricuspid Valve	S	between R. atrium & R. ventricle prevents backflow of blood into atria
Right Ventricle	P	pumps deoxygenated blood to the lungs via the pulmonary artery
Pulmonary Valve	P	separates pulmonary artery & R. ventricle, prevents backflow into R. ventricle
Pulmonary Arteries	P	take takes blood from the (deoxygenated) heart to the lungs
Pulmonary Veins	P	brings oxygenated blood from the lungs to the heart
Left Atrium	P	receives oxygenated blood from the lungs
Mitral Valve	S	separates left atria atria & left ventricle, prevents backflow of blood into the L. atria
Left Ventricle	S	pumps oxygenated blood to aorta
Aortic Valve	S	prevents backflow of blood into L. ventricle
Aorta	S	takes oxygenated blood out to the body
Septum	app N/A	separates left & right sides of the heart

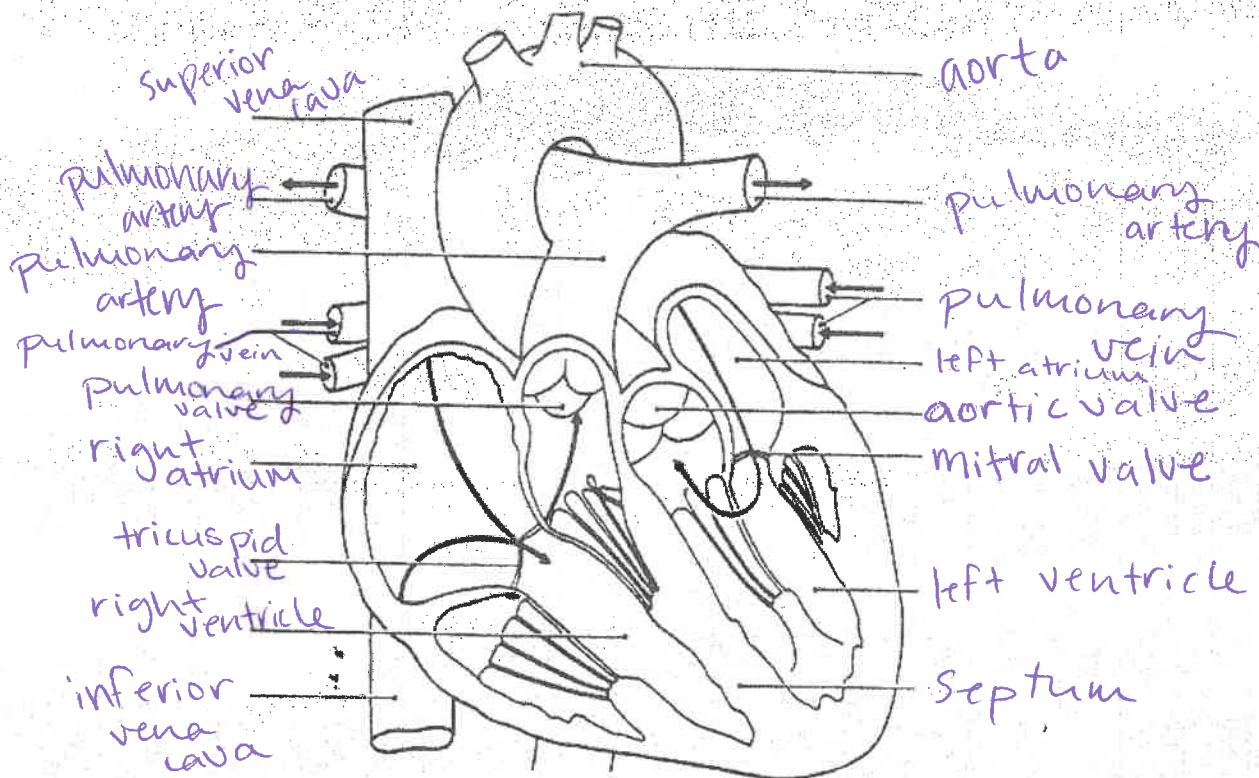
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The Heart and Circulation

1. Label all the arrows in the diagram below, indicate how blood flows into and out of the heart. Use red to indicate the flow of oxygenated blood, and blue to indicate the flow of deoxygenated blood.



2. What are the roles of arteries, veins, and capillaries?

~~blood vessels that carry blood~~
 arteries - ~~are~~ blood vessels that carry blood away from the heart

veins - blood vessels that carry blood to the heart

capillaries - small vessels that penetrate body tissues for the exchange of oxygen + nutrients

3. Why do we say the heart is a two pump system? What are the "pumps"?

One pump to pump blood to lungs

One pump to pump blood to the body

