

Essential Question: How can my lifestyle affect the quality of my life?

Activity 6 - The Circulatory System: *Keeping things circulating!*

Purpose: I can explain how the **parts (subsystems)** of my **circulatory system** work together to deliver O₂ and nutrients and take away CO₂ and other wastes.

Background: The circulatory system is an open system made of organ subsystems that permits blood to circulate and transport nutrients (such as glucose, amino acids and electrolytes), oxygen, carbon dioxide, hormones, and blood cells to and from the cells in the body. Its overall function is to provide nourishment, remove wastes, help in fighting diseases, stabilize temperature and pH, and help regulate the other body systems.

Instructions:

1. Explore the circulatory system by watching [vclip 1](#) , [vclip 2](#) and [vclip 3](#). Then tell the function each organ/subsystem.

Organ / Subsystem	Function
Right Side of the Heart	
Left Side of the Heart	
Arteries	
Veins	
Capillary / Alveoli interface in lungs	
Capillaries to body cells	
Heart Valves	

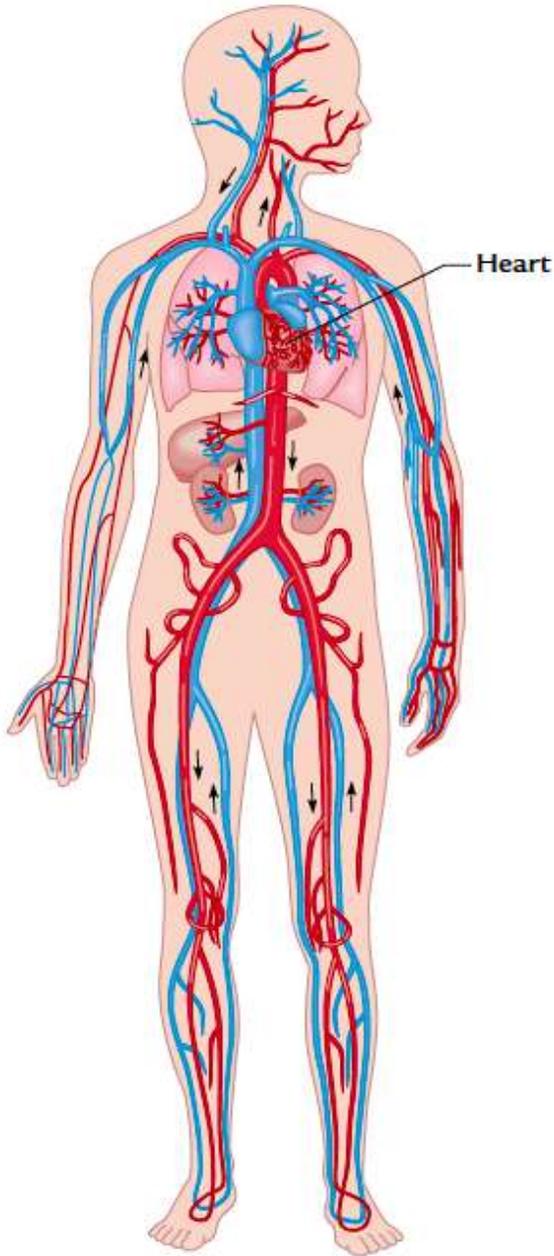
2. How are the circulatory subsystems organized? Work with your team, online resources and figures 1-3 on the next page to discover the order each subsystem (above) in the circulatory system occurs. Begin with:

- a. Capillaries to body cells
- b.
- c.
- d.
- e.
- f.
- g.

1. There are about 5 million red blood cells in a tiny droplet of blood.
2. It takes about 20 seconds for a red blood cell to circulate through the entire body.

Student Review: 1-Below Standard, 2-Approaching Standard, 3-Standard, 4-Above Standard Use the scale to evaluate completeness & correctness of the job. Put score, Initial & date in boxes.	Score	Initial/Date
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Figure 1 : Circulatory System



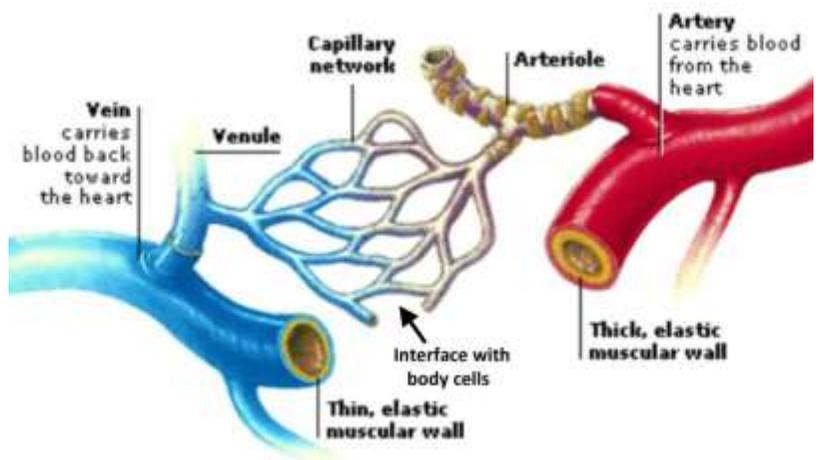
3. Label the heart diagram below with the:

- a. right and left sides of the heart
- b. heart valves
- c. inflow from the veins
- d. outflow to the lungs
- e. inflow from the lungs
- f. outflow to the arteries

Figure 2: The Heart



Figure 3: Capillary to body cell interface



Student Review: 1-Below Standard, 2-Approaching Standard, 3-Standard, 4-Above Standard
Use the scale to evaluate completeness & correctness of the job. Put score, Initial & date in boxes.

Score

Initial/Date

4. Draw a figure of the Circulatory System Model showing each subsystem with a label of its actual equivalent, in the space below.