

34 Circulatory, Respiratory, and Excretory Systems

1 Circulatory System

TEKS 3(F), 5(B), 10(A), 11(A)

REVIEW VOCABULARY

muscle contraction

NEW VOCABULARY

arteries

atherosclerosis

capillaries

heart

pacemaker

plasma

platelets

red blood cells

valves

veins

white blood cells

MAIN IDEA

Write the Main Idea for this lesson.

Recall the definition of the Review Vocabulary term.

muscle contraction

Use the new vocabulary terms to complete the paragraph below.

Large blood vessels called _____ carry oxygenated blood away from the heart. The blood flows into microscopic _____, where the blood exchanges oxygen and wastes with body cells. Then _____ carry deoxygenated blood back to the heart. In these large vessels, flaps of tissue called _____ prevent blood from flowing backward. The hollow, muscular _____ pumps blood throughout the body. A _____ in the right atrium sends out signals that tell the heart muscle to contract. Over half of blood is made up of a clear, yellowish fluid called _____. The function of _____ is to carry oxygen to all body cells. The _____ are the body's disease fighters. Cell fragments called _____ help to form blood clots at a wound site. Blood clots, fat deposits, or other materials can block the flow of blood through the arteries, resulting in a condition called _____.

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1 Circulatory System (continued)

Student Edition, pp. 992–999

Reading Essentials,
pp. 399–404

Analyze how the circulatory system functions as the body's transport system.

GET IT? **Describe** the differences in structure among arteries, capillaries, and veins.

1 Circulatory System (continued)

Identify the components of blood, and list the characteristics of each.

Blood Component	Characteristics

GET IT? Explain the functions of plasma.

Distinguish between blood type, by putting checks in the boxes to show which marker molecules and antibodies it contains.

Blood Type	Marker A	Marker B	Anti-A Antibody	Anti-B Antibody
A				
B				
AB				
O				

Compare heart attacks to strokes.

	Heart Attack	Stroke
Causes		
Effects		

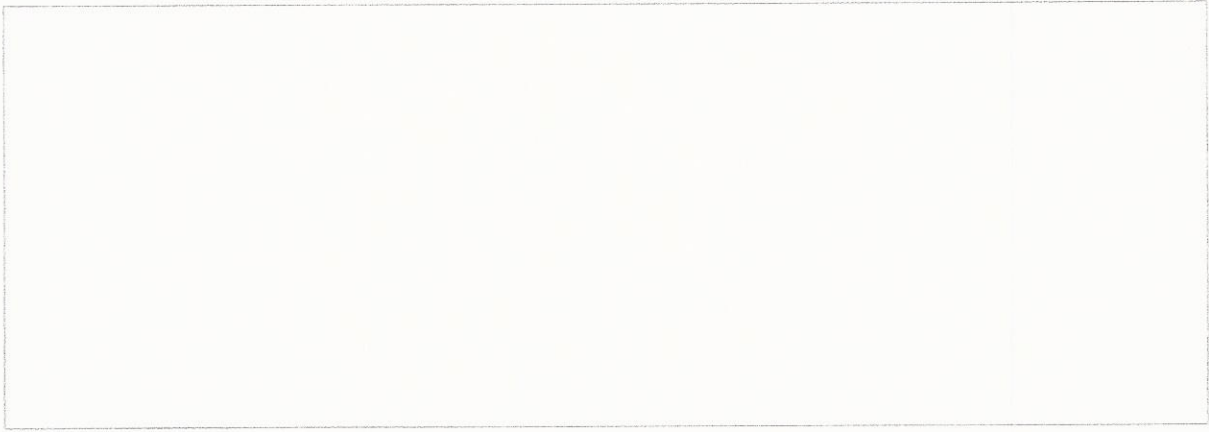
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1 Circulatory System (continued)

REVIEW IT!

1. **MAIN IDEA** Explain the main functions of the circulatory system.

2. **Diagram** the path of blood through the heart and body.



3. **Compare and contrast** the structure of arteries and the structure of veins.

4. **Calculate** the average number of red blood cells for every 100 white blood cells in the human body.

5. **Summarize** the functions of the four components of blood

1 Circulatory System (continued)

6. **Cause and Effect** If a pacemaker received faulty signals from the brain, what would happen?

7. **Hypothesize** why exercise helps to maintain a healthy heart.

8. Count the number of times your heart beats during 15 seconds. What is your heart rate per minute?
