

Name _____ Class _____ Date _____

Chapter 37 Circulatory and Respiratory Systems

Section 37-1 The Circulatory System (pages 943-950)

Key Concepts

- What are the structures of the circulatory system?
- What are the three types of blood vessels in the circulatory system?

Functions of the Circulatory System (page 943)

- Why do large organisms require a circulatory system? _____
- What is a closed circulatory system? _____
- List the three components of the circulatory system.
 - _____
 - _____
 - _____

The Heart (pages 944-946)

- Is the following sentence true or false? The heart is composed almost entirely of muscle. _____

Match each heart structure with its description.

- | Structure | Description |
|----------------------|---|
| _____ 5. pericardium | a. Thick layer of muscle in the walls of the heart |
| _____ 6. myocardium | b. Sac of tissue that encloses and protects the heart |
| _____ 7. atrium | c. Upper chamber of the heart |
| _____ 8. ventricle | d. Lower chamber of the heart |
- Dividing the right side of the heart from the left side is a wall called a(an) _____.
 - Is the following sentence true or false? The heart functions as four separate pumps. _____

- Complete the table about the circulatory system.

THE CIRCULATORY SYSTEM

Name of Circulatory Pathway	Side of Heart Involved	Route Blood Follows
Pulmonary circulation		From heart to lungs
	Left side	

- What happens to blood when it reaches the lungs? _____

- Why is the blood that enters the heart from the systemic circulation oxygen-poor? _____

- Circle the letter of each sentence that is true about blood flow through the heart.
 - Blood enters the heart through the right and left atria.
 - Blood enters the heart through the right and left ventricles.
 - Blood flows from the ventricles to the atria.
 - Blood flows out of the heart through the right and left atria.

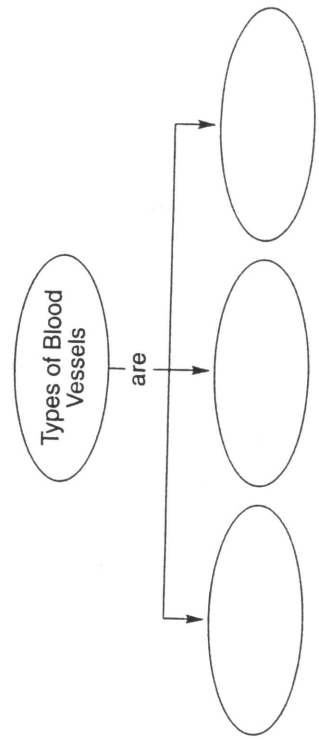
- Flaps of connective tissue called _____ prevent blood from flowing backward in the heart.

- Each heart contraction begins in a small group of cardiac muscle cells called the _____ node.

- Cells that "set the pace" for the beating of the heart as a whole are also called the _____.

Blood Vessels (pages 946-947)

- Complete the concept map.



- Circle the letter of each sentence that is true about arteries.
 - Most carry oxygen-poor blood.
 - They can expand under pressure.
 - They have thin walls.
 - The largest is the aorta.

- The smallest blood vessels found in the body are the _____.
- What work is done in the capillaries? _____

- What keeps blood flowing toward the heart in the largest veins? _____