

CHAPTER 34

Study Guide

Section 1: The Circulatory System

In your textbook, read about the functions of the circulatory system.

If the statement is true, write true. If the statement is false, replace the italicized word or phrase to make it true.

1. The circulatory system consists of *three parts: the blood, the heart, and the blood vessels.*

2. The heart pumps blood through a network of tubes inside the body called *blood vessels.*

3. The circulatory system transports *oxygen* and nutrients to cells and removes wastes from body cells.

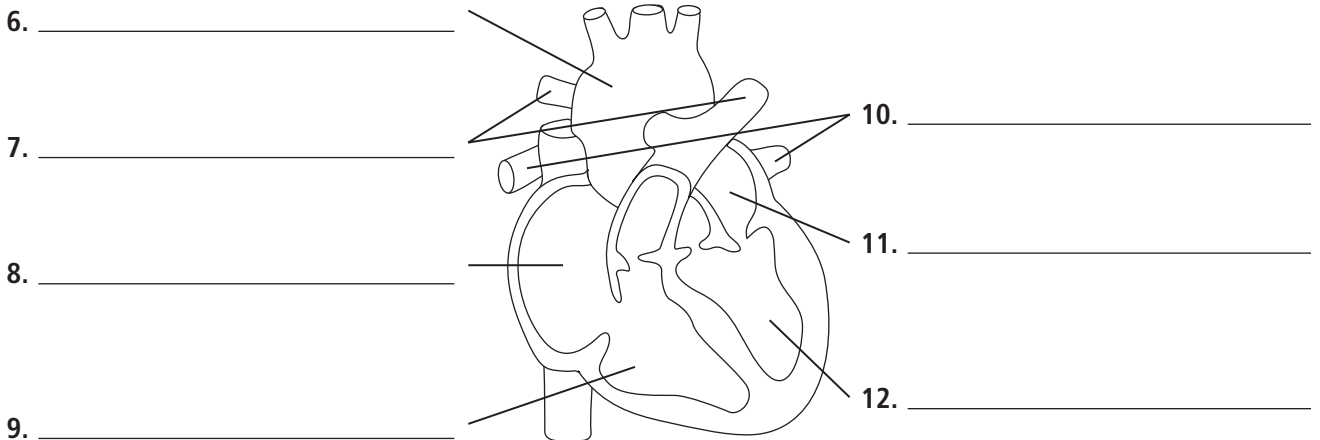
4. The circulatory system distributes *water* throughout the body to help regulate body temperature.

5. The circulatory system contains cell *clots* and proteins.

In your textbook, read about the structure of the heart.

Label the diagram of the human heart. Use these choices:

- | | | | |
|------------------------|---------------------|------------------------|---------------------------|
| aorta | left atrium | left ventricle | pulmonary arteries |
| pulmonary veins | right atrium | right ventricle | |



Study Guide, Section 1: The Circulatory System continued

In your textbook, read about how the heart beats.

Write the term or phrase that best completes each statement. Use these choices:

atrioventricular node

pulse

sinoatrial node

systole

13. A group of cells called the pacemaker, or _____, in the right atrium sends out signals that tell the heart muscle to contract.
14. The _____ transmits the signal that causes both ventricles to contract.
15. The alternating expansion and relaxation of the artery wall caused by contraction of the left ventricle is the _____.
16. The blood pressure caused by contraction of the heart is called _____.

In your textbook, read about blood components.

Complete the table by checking the correct column(s) for each description.

Description	Red Blood Cell	White Blood Cell	Platelet	Plasma
17. Contains hemoglobin				
18. Carries glucose and fats				
19. Lacks a nucleus				
20. Releases chemicals that form fibrin				
21. Transports oxygen				
22. Produced in bone marrow				
23. Clear, yellowish fluid				
24. Helps clot blood				
25. Fights infection				

Study Guide

CHAPTER 34

Section 2: The Respiratory System

In your textbook, read about the importance of respiration.

Use each of the terms below only once to complete the passage.

breathing	carbon dioxide	external	internal
lungs	oxygen	respiration	

The function of the respiratory system is to sustain cellular (1) _____ .

This is done by supplying (2) _____ to cells and removing

(3) _____ waste from cells. (4) _____

is the mechanical movement of air into and out of the (5) _____ .

(6) _____ respiration is the exchange of gases between the atmosphere

and the blood that occurs in the lungs. (7) _____ respiration is the exchange

of gases between the blood and the body's cells.

In your textbook, read about the path of air.

Match the description in Column A with the structure in Column B.

Column A

- _____ 8. large tubes that enter each lung from the trachea
- _____ 9. thin-walled, individual air sacs within the lungs
- _____ 10. small branches off larger tubes within each lung
- _____ 11. filters out dust; warms and moistens air
- _____ 12. branches into two large tubes that go to the lungs

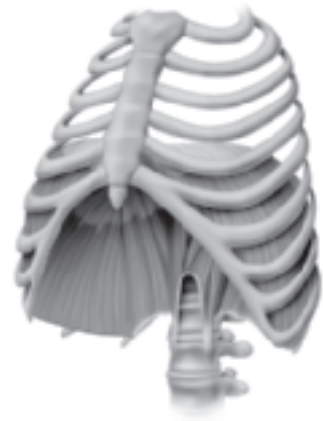
Column B

- A. mouth or nose
- B. trachea
- C. bronchi
- D. bronchioles
- E. alveoli

In your textbook, read about breathing.

Mark the figure to the right as each statement directs.

- 13. Draw red arrows on the figure to show the movement of air and the diaphragm during inhalation.
- 14. Draw blue arrows on the figure to show the movement of air and the diaphragm during exhalation.



CHAPTER 34

Study Guide

Section 3: The Excretory System

In your textbook, read about the parts of the excretory system and the kidneys.

Complete the table by checking the correct column(s) for each organ.

Primary Material(s) Removed				
Organ	Salts	Carbon Dioxide	Water	Wastes
1. Lungs				
2. Skin				
3. Kidneys				

Respond to each statement.

4. Name the major excretory organ in the body.

5. Cite a way that the excretory system helps maintain homeostasis, besides removing wastes, water, carbon dioxide, and salts.

In your textbook, read about the kidneys.

Label the diagram of a nephron. Use these choices:

Bowman's capsule

capillaries

glomerulus

convoluted tubule

to ureter

- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

