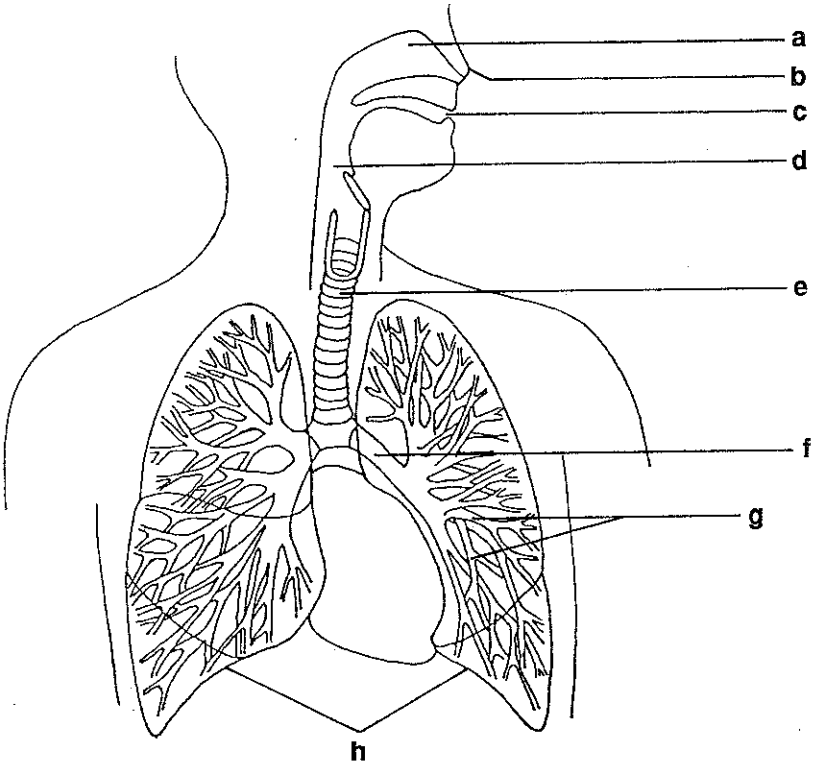
The Respiratory System

Part A: *Label each part of the respiratory system on the lines provided.*



a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

g. _____

h. _____

Part B: *Complete the following sentences by writing the correct letter from the diagram of the respiratory system in the space provided.*

1. The ____ is a hollow opening between the nose and throat.
2. The larynx is found at the top of the ____ .
3. Alveoli are found in the ____ .
4. Air usually enters the respiratory system through the ____ .
5. The ____ are small tubes whose walls are made up only of smooth muscle.
6. The ____ is a pathway for both food and air.
7. Each ____ extends into a lung.
8. Gas exchange takes place in the ____ .
9. Air moving through the ____ is warmed, moistened, and filtered.
10. The epiglottis is located at the place where the esophagus and ____ meet.

Part C: *Match the terms with the descriptions. Write the term in the space provided.*

cilia nostrils larynx epiglottis mucus

_____ 1. Keeps respiratory tissues from drying out

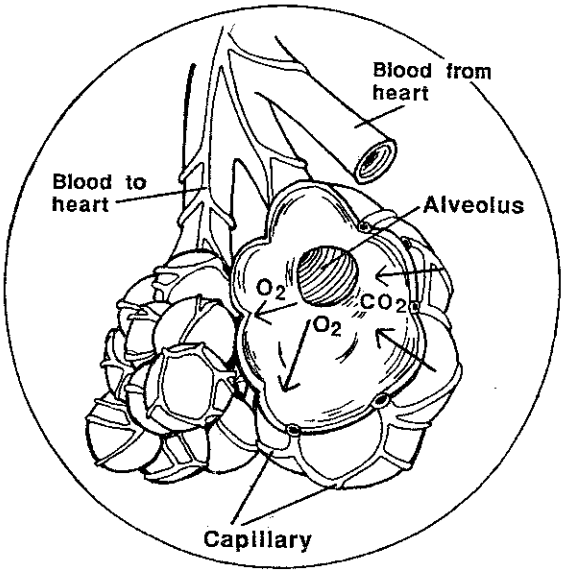
_____ 2. Covers the trachea when you swallow

_____ 3. Hairlike structures

_____ 4. Openings used to take in air through the nose

_____ 5. Contains the vocal cords

Part D: *Study the diagram. Then, answer the questions in the space provided.*



1. What does the diagram illustrate? _____
2. Between what structures are gases exchanged? _____
3. How many cells thick are the walls of the alveoli? _____
4. How many cells thick are the walls of capillaries? _____
5. What two gases are exchanged in the lungs? _____
6. Does air entering the alveoli have a high level or a low level of oxygen? _____
7. Does air entering the alveoli have a high level or a low level of carbon dioxide? _____
8. Does blood coming from the heart have a high level or a low level of oxygen? _____
9. Does blood coming from the heart have a high level or a low level of carbon dioxide? _____
10. By what process does the exchange of oxygen and carbon dioxide take place? _____

Breathing

Study the characteristics in Table 1. Indicate whether each characteristic describes inhalation or exhalation by placing a check in the correct column.

Table 1 Comparison of Inhalation and Exhalation

Characteristic	Inhalation	Exhalation
1. Chest expands.		
2. Rib muscles relax.		
3. Diaphragm moves upward.		
4. Volume of the chest cavity increases.		
5. Rib muscles contract.		
6. Diaphragm relaxes.		
7. Volume inside the chest cavity decreases.		
8. Ribs move upward and outward.		
9. Diaphragm contracts.		
10. Air pressure in chest cavity decreases.		
11. Ribs move inward and downward.		
12. Air rushes in.		
13. Air is forced out.		
14. Diaphragm moves downward.		
15. Air pressure in chest cavity increases.		

Respiratory Diseases

Part A: *Complete the table by filling in the missing respiratory disease, effect, cause, symptoms, or treatment.*

Table 1 Respiratory Diseases

Respiratory Disease	Effect on the Respiratory System	Causes	Symptoms	Treatment
1.	Fluid develops in the alveoli	**2.**	Fever, chills, fatigue, coughing, and a tightness in the chest while breathing	Antibiotics
Bronchitis	**3.**	Dirt and dust	**4.**	Antibiotics
5.	Muscular walls of the bronchioles contract	Dirt and dust	Difficulty breathing	**6.**

Part B: *Write the name of the disease that each statement describes. Use* ***bronchitis, pneumonia,*** *or* ***asthma.***

_____ **1.** Inflammation of the lungs

_____ **2.** Inflammation of the bronchioles with a bad cough

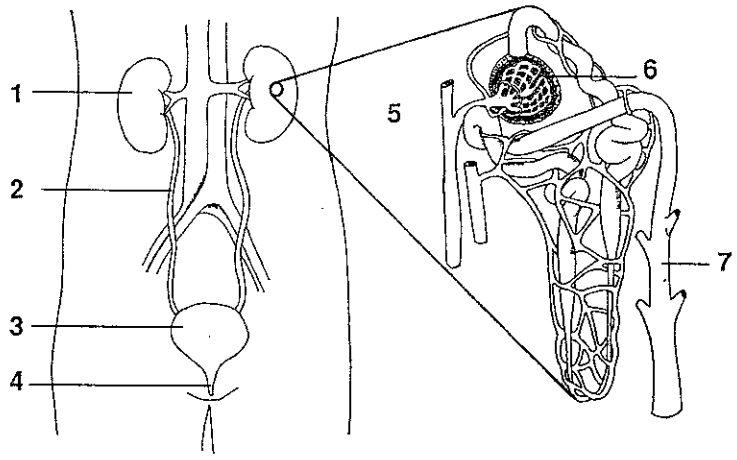
_____ **3.** Lungs are invaded by a disease-causing bacterium or virus

_____ **4.** Inflammation of the bronchioles making breathing difficult

_____ **5.** May be a kind of allergy

The Excretory System

Part A: *Study the diagrams. Label each part of the excretory system on the lines provided. Then answer the questions.*



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

8. What is the main job of the kidneys? _____

_____

9. What are the filtering structures of the kidneys? _____

10. What substances are removed from the blood as it flows through the filtering structures of the kidneys?

_____

11. Which of these substances are returned to the blood before it leaves the kidneys? _____

_____

12. What is urine made up of? _____

13. Through what tube does urine leave each kidney? _____

14. What structure stores urine until the urine is removed from the body? _____

15. What structure carries urine to the outside of the body? _____

Part B: *The excretory system removes waste products from the body. Next to each waste product, write* ***lungs****,* ***kidneys****, or* ***skin*** *to identify the organ which removes it from the body. Organs may be used more than once.*

1. Carbon dioxide _____
2. Salts _____
3. Water _____
4. Urea _____

Excretory Problems

Part A: *Write the name of the excretory problem on the line provided.*

_____ **1.** This problem develops when calcium compounds and nitrogen wastes form solid particles in the kidney.

_____ **2.** The symptoms of this disease include whiteheads, blackheads, and pimples.

Part B: *Answer the questions in the spaces provided.*

1. What are three treatments for kidney stones? _____

_____

_____

2. What are six ways to control acne? _____

_____

_____

_____

_____

_____

3. What happens if kidney stones block the ureter? _____

_____

_____

Name _____ Class _____ Date _____

Chapter 23 Respiration and Excretion — Vocabulary Review

For each word, underline the correct statement.

1. air sacs
   a. endings of the trachea
   b. where oxygen and carbon dioxide are exchanged
   c. where respiration takes place

2. bronchitis
   a. tube in the lungs
   b. disease of the excretory system
   c. inflammation of the bronchioles

3. nephrons
   a. tiny tubelike structures in the kidneys
   b. bundles of alveoli
   c. tubes from the kidneys

4. urea
   a. a nitrogen compound in urine
   b. excess water in the kidneys
   c. tube leading from the urinary bladder

5. alveoli
   a. where carbon dioxide and water leave the body
   b. air sacs in the lungs
   c. part of the excretory system

6. excretion
   a. waste products in the body
   b. salts, urea, and water
   c. removal of waste products from the body

7. ureter
   a. tiny tubes in the kidney
   b. two tubes that lead from the kidneys to the urinary bladder
   c. tube from the urinary bladder to the outside of the body

8. asthma
   a. respiratory disease in which the bronchioles narrow
   b. respiratory disease caused by bacteria
   c. another name for bronchitis

9. kidneys
   a. main organs of the respiratory system
   b. organs in which wastes are filtered from the blood
   c. organ where urine is stored

10. pore
    a. sweat gland
    b. tube from the sweat gland to the skin surface
    c. tiny opening on the skin surface where sweat leaves the body