

**THE RESPIRATORY SYSTEM****Video Quiz**

**Directions:** At the conclusion of the videotape there will be a short quiz with these questions. Write your answers in the space provided. Use the back of this sheet if necessary.

**Question 1:** The process that enables cells of the body to burn food and release energy is called  
a. circulation      b. digestion      c. respiration      d. excretion

**Question 2:** The throat leads to two separate paths. One path goes to the stomach. This path is called the  
a. trachea      b. esophagus      c. epiglottis      d. mucus

**Question 3:** The other path from the throat leads to the lungs. It is called the  
a. trachea      b. esophagus      c. epiglottis      d. mucus

**Question 4:** This flap covers up the path leading to the lungs so that during eating food doesn't "go down the wrong tube."  
a. trachea      b. esophagus      c. epiglottis      d. mucus

**Question 5:** The exchange of gases inside the lungs actually occurs inside tiny sacs called  
a. bronchi      b. cilia      c. capillaries      d. alveoli

**Question 6:** The brain sends electrical messages to the chest muscles and the \_\_\_\_\_ for breathing in and out to occur.  
a. diaphragm      b. bronchi      c. cilia      d. alveoli

**Question 7:** The chemical in cigarettes that causes addiction is called  
a. tar      b. nicotine      c. carbon monoxide

**Question 8:** The gas that is most abundant in the earth's atmosphere is  
a. oxygen      b. carbon dioxide      c. sulfur      d. nitrogen

**Question 9:** Insects have little holes along their abdomens to take in oxygen. These holes are called  
a. gills      b. lungs      c. bronchi      d. spiracles

**Question 10:** The nose produces a continuous supply of \_\_\_\_\_ to put moisture in the air and catch dust and bacteria.  
a. mucus      b. bronchi      c. cilia      d. oxygen

**THE RESPIRATORY SYSTEM****Vocabulary**

**Directions:** Write a definition for each of the terms listed below:

1. respiration-

2. gills-

3. spiracles-

4. carbon dioxide-

5. mucus-

6. cilia-

7. esophagus-

8. trachea-

9. epiglottis-

10. larynx-

11. bronchi-

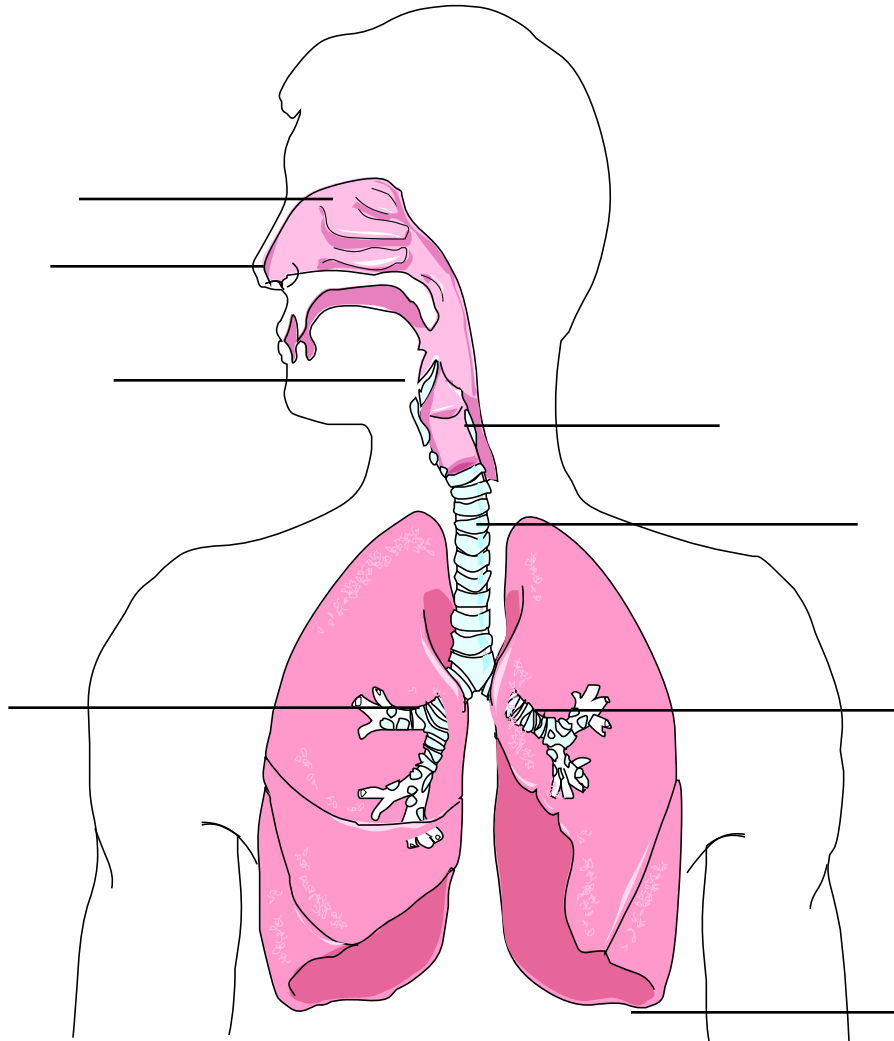
12. alveoli-

13. diaphragm-

## THE RESPIRATORY SYSTEM

### Parts of the Respiratory System

**Directions:** Label the diagram with the terms from the box at the bottom of the page.



Larynx    Epiglottis    Trachea    Nose

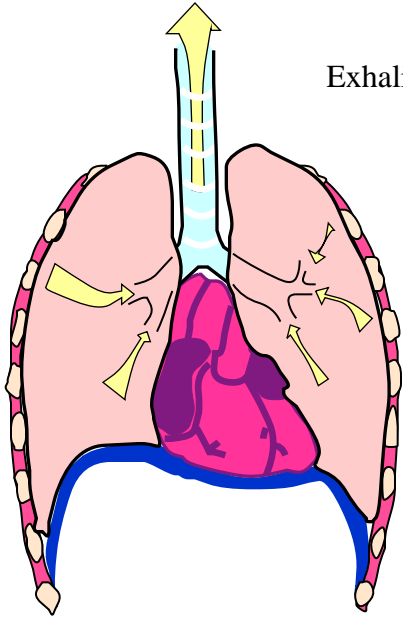
Diaphragm    Right Bronchus    Left Bronchus    Nasal Cavity

THE RESPIRATORY SYSTEM  
from The Human Body Systems Series  
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### THE RESPIRATORY SYSTEM

#### Breathing

We are able to breathe in and out because of differences in air pressure. The pictures below illustrate inhaling and exhaling. Describe what is happening next to each illustration.



Exhaling

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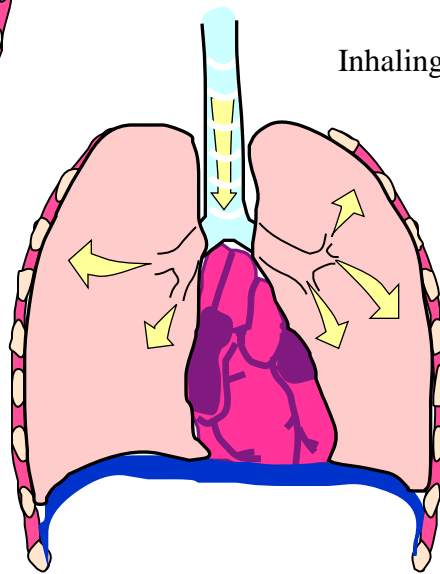
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Inhaling

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**THE RESPIRATORY SYSTEM****Lung Capacity**

**PURPOSE:** To determine lung capacity by measuring the amount of exhaled air.

**MATERIALS:** a large jug such as a water bottle from a water cooler  
 a graduated cylinder (1,000 ml)  
 a grease pencil  
 water  
 tubing  
 soda straws  
 large pan for the jug to sit in upside down

**PROCEDURES:**

1. Use the graduated cylinder to measure out 1,000 ml of water and pour it into the large jug. Use the grease pencil to mark the water level and mark it 1,000.
2. Pour 500 ml more water into the jug and mark that line. Label it 1,500 ml.
3. Continue to add water to the jug and mark off the water level at each 500 ml.
4. Fill the pan with water.
5. Fill the jug with water. Hold your hand over the mouth of the jug and invert it so that its mouth is down in the pan.
6. Tilt the jug slightly so that one end of the tubing can fit into the mouth of the jug. Put a straw in the other end of the tube to be used as a mouthpiece.
7. Record the level of the water in the jug. Take a normal breath. Place your mouth on the straw and hold your nose. Exhale normally into the straw.
8. Record how far down the water level goes. The difference between the original number and the new one is the amount of lung capacity in a normal breath.
9. Repeat these steps but this time take the largest breath you can. This will be the full capacity of your lungs.

**OBSERVATIONS:**

TRIAL	STARTING WATER LEVEL	END WATER LEVEL
NORMAL		
FULL		

**CONCLUSIONS:** What is your full lung capacity? \_\_\_\_\_

What is the difference between your two trials? \_\_\_\_\_

**THE RESPIRATORY SYSTEM****Quiz**

**Directions:** Use the space provided to answer the following questions. Use the back of this sheet if necessary.

1. What is the job of the respiratory system?
2. What is respiration?
3. Describe the path of air as it is inhaled into the human respiratory system.
4. How does the diaphragm help during inhaling and exhaling?
5. The mucus in the nostrils perform two main jobs. What are those jobs?
6. Why do we occasionally sneeze?
7. What job does the epiglottis perform?
8. What happens in the alveoli in the process of gas exchange?
9. What are some of the substances released in cigarette smoke that are harmful to the respiratory system?