# The Respiratory System - Worksheet

## True or False

*Write T if the statement is true or F if the statement is false.*

\_\_\_\_\_ 1. The exchange of gases between the body and the outside air is called breathing.

\_\_\_\_\_ 2. Respiration begins with gas exchange.

\_\_\_\_\_ 3. Respiration and cellular respiration are different.

\_\_\_\_\_ 4. Pulmonary gas exchange occurs in the alveoli of the lungs.

\_\_\_\_\_ 6. Oxygenated blood is transported by the respiratory system from lungs to tissues throughout the body.

\_\_\_\_\_ 7. The mouth is an organ of the respiratory system.

\_\_\_\_\_ 9. Pulmonary gas exchange is the exchange of gases between inhaled air and the blood.

\_\_\_\_\_ 10. The heart pumps the oxygen-rich blood into your veins, which carry it throughout the body.

\_\_\_\_\_ 11. Body cells have a much higher concentration of oxygen than blood in the peripheral capillaries.

\_\_\_\_\_ 12. The regular, rhythmic contractions of the diaphragm are controlled by the brain stem.

\_\_\_\_\_ 13. Carbon dioxide from body cells travels in the blood back to the heart, then to the lungs where it is inhaled again.

\_\_\_\_\_ 14. Gas exchange is extremely important in maintaining homeostasis.

## Multiple Choice

*Circle the letter of the correct choice.*

1. The functions of the respiratory system include which of the following?

(1) bringing air containing oxygen into the body,

(2) releasing carbon dioxide into the atmosphere,

(3) exchanging oxygen with carbon dioxide in blood cells,

(4) transporting oxygen to cells throughout the body.

* + 1. 1 only
		2. 1 and 2
		3. 1, 2, and 3
		4. 1, 2, 3, and 4
1. The four steps of respiration are
	* 1. ventilation, central gas exchange, gas transport, peripheral gas exchange.
		2. ventilation, pulmonary gas transport, gas exchange, peripheral gas transport.
		3. ventilation, pulmonary gas exchange, gas transport, peripheral gas exchange.
		4. breathing, pulmonary gas exchange, central gas exchange, peripheral gas exchange.
2. Inhaling
	* 1. occurs when the diaphragm contracts.
		2. occurs when the diaphragm relaxes.
		3. is the exchange of gas between blood cells and the lungs.
		4. is when oxygen in the air is drawn into the body and carbon dioxide is released from the body.
3. Respiration begins with
	* 1. gas transport between the mouth and the atmosphere.
		2. ventilation, the process of moving air in and out of the lungs.
		3. ventilation between the lungs and the blood.
		4. gas exchange between the lungs and the blood.
4. Ventilation involves which organs?
	* 1. the larynx, pharynx, and trachea
		2. the lungs, larynx, pharynx, and trachea
		3. the heart and lungs, larynx, pharynx, and trachea
		4. the heart, blood and lungs, larynx, pharynx, and trachea
5. Gas exchange occurs
	* 1. in the lungs, between the blood and the air.
		2. in the alveoli of the lungs, between the peripheral capillaries and lung cells.
		3. in the alveoli of the lungs, between the peripheral capillaries and body cells.
		4. all of the above

## Lesson 23.2: Vocabulary I

*Match the vocabulary term with the proper definition.*

### Definitions

|  |  |
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| Terms1. alveoli
2. asthma
3. cellular respiration
4. larynx
5. lungs
6. pharynx
7. respiration
8. respiratory system
9. trachea
10. ventilation
 | \_\_\_\_\_ 1. the voice box\_\_\_\_\_ 2. the exchange of gases between the body and the outside air\_\_\_\_\_ 3. a long tube that is shared with the digestive system\_\_\_\_\_ 5. the wind pipe\_\_\_\_\_ 6. tiny air sacs in the lungs\_\_\_\_\_ 7. the organs in which gas exchange takes place between blood and air\_\_\_\_\_ 8. the body system that brings air containing oxygen into the body and releases carbon dioxide into the atmosphere\_\_\_\_\_ 10. the metabolic process by which cells obtain energy\_\_\_\_\_ 11. the process of moving air in and out of the lungs\_\_\_\_\_ 12. a lung disease in which walls of the alveoli break down |

## Lesson 23.2: Critical Writing

*Thoroughly answer the question below. Use appropriate academic vocabulary and clear and complete sentences.*

Define respiration, and explain how it differs from cellular respiration.