

14.3 The Respiratory System

Date _____

Last Name _____ First _____ period ____

1. What is the function of the respiratory system?

The respiratory system moves _____ from outside environment to _____ the body. It also removes _____ and water from the body.

2. How is the respiratory process like a burning candle?

Just as a flame needs _____ and _____ to burn, your body needs fuel and oxygen for _____.

3. Define respiration

a. _____ is the process in which cells use _____ and _____ to release _____. _____ is a by product.

b. Use symbols to explain the chemical reaction of respiration.

4. Interpret the pie graph

a. What is the composition of air?

_____% _____
_____% _____
_____% _____

5. What is breathing?

_____ is the process that the body uses to _____ air in and _____ of the _____.

6. What is the name of the muscle for breathing? _____

a. How does the diaphragm move during an inhaled breath? _____

b. How does the diaphragm move during an exhaled breath? _____

7. Diagram the path of air from nose to lungs

_____ → _____ → _____
→ _____ → _____

8. Describe the function of the nose.

- a. As air enters the nose its temperature _____.
- b. _____ traps dust and bacteria.
- c. _____ move in a sweeping motion pushing _____ down into the throat and stomach.

9. Describe the pharynx and its function.

- a. The _____ is the throat.
- b. _____ moves from the _____ and mouth into the _____.
- c. The _____ prevents air from going into the _____ and stomach.

10. Draw and label a diagram showing the structure of the windpipe.

11. What are the two branches of the trachea called? _____

Where do they lead? _____

12. What is the name of the smallest branches in the bronchial tubes?

13. The air sacs at the end of the bronchioles are located throughout the lungs. What are the sacs called? _____

14. Where in the respiratory system does gas exchange occur?

_____ and CO₂ gases are exchanged between the _____ (air sacs) and blood _____ inside the _____.

15. How many alveoli do the lungs contain? _____

a. Describe how the structure of the lungs with millions of small air sacs is better than lungs with one large air sac.

This structure allows for a _____ which allows for the absorption of a _____ amount of _____.

16. What is the name of the voice box? _____

a. Where is the voice box located? _____

b. Describe the structure of the larynx.

2 _____ made up of _____ tissue stretch across the opening of the larynx.

c. How is sound produced by the larynx?

Sound is produced by the _____