

What Does Respiration Work?

Name: _____

Date: _____

Scripture Spotlight

- *When God created Adam, when did Adam actually become “alive”? Look up **Genesis 2:7** to find out. Then compare that verse with **Psalm 104:29** and **Psalm 146:4**. What should we do with our breath while we are alive? See **Psalm 146:2** and **Psalm 150:6**.*

Respiration: Air Pathway

1. Air enters your body through your _____.
 - a. From there air flows to the nasal cavities, which are lined with _____ tissue, cilia, and blood vessels.
 - b. The mucous tissue warms, moistens, and _____ the air.
 - c. _____ are tiny hairs in the nasal cavities. They act as a filter to keep dirt and dust from getting to the lungs.
2. The nasal cavities connect to the _____, located at the back of the mouth.
3. The _____ is connected to the trachea, also known as the windpipe. It is also lined with cilia to trap dirt and foreign particles from entering the lungs.
4. The _____ is a flap of tissue that moves over the trachea when you swallow.
5. The upper part of the trachea is called the _____, or voice box. Two ligaments, your vocal cords, are stretched across the larynx. Air passes through the space between the vocal cords producing sounds. This is your voice!
6. The end of the trachea divides into two _____, or air tubes. Each bronchi connects to a _____. Like the trachea, the bronchi also are lined with cilia to continue the filtering process.
7. The bronchi branch off into smaller tubes called _____. Some bronchioles are no wider than the diameter of a human hair.
8. At the end of each bronchiole lie small air sacs called _____.
 - a. There are hundreds of _____ of alveoli in the lungs.

- b. Each inhalation inflates the _____.
 - c. Tiny capillaries line the _____ walls.
 - d. This is where the exchange of carbon dioxide for oxygen is made in the blood.
9. Every single red blood cell in your bloodstream flows through the _____ for this gas exchange. Oxygen is picked up by the hemoglobin where it is held for transport to the waiting cells of the body.

Respiration: Exchanges of Gases

- When you breathe, oxygen moves from the air into _____ that surround the alveoli.
- The hemoglobin in red blood cells _____ the oxygen and transport it throughout the body.
- Carbon dioxide will move from the red blood cells into the _____.
- The carbon dioxide is exhaled as a _____ product.
- This process is known as gas _____.

Caring for the Respiration System

- The best way to care for the respiratory system is to eat a balanced _____ and to get regular _____.
- Exercising vigorously for _____ at least three times a week will help your lungs stay healthy.
- Breathing polluted air is _____ to your health.
- _____ damages the air sacs, the air passages, and the cilia that lines them.
- Being in a room where a person smokes can damage their _____.
- Research shows that children who breathe second-hand smoke have _____ respiratory problems than children who live in smoke-free homes.
- _____ smoke also damages the circulatory system.
- Smoking increases a person's blood _____.
- The smoke damages the _____ of the blood vessels and causes the blood to thicken.
- This results in an _____ in blood pressure, which strains the heart muscles.
- The respiratory system is vulnerable to _____ disorders.
- Some of these disorders are _____, while others are caused by pathogens.

- Some of the disorders result from following an _____ lifestyle.
- All of the disorders can be _____ with proper diet, healthy living, and when necessary treatment.
- Every day to draw life-sustaining _____.
- As you _____, the air follows a circuitous path through your respiratory system, where it is warmed, moistened, and cleaned.
- The oxygen in the air is _____ for carbon dioxide, a waste product from your cells.
- The carbon dioxide is released with each _____.
- The process _____ again and again.