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| What are the functions of the respiratory system?  How does the respiratory system take in oxygen?  How does the respiratory system remove carbon dioxide and water?  How does the respiratory system work with other body systems?  What is the path of air?  How does air enter the nose?  What protects the nose?  What is the **pharynx**?  What is the **trachea**?  How does sneezing and coughing help you?  What is the **bronchi**?  What is the **alveoli**?  How is gas exchanged in the lungs?  How does gas exchange occur?  How is surface area related to gas exchange?  What muscles are used for breathing?  What happens when you inhale?  What happens when you exhale? | The respiratory system moves oxygen from the environment to inside your body.  Respiration is the process of chemical reactions between oxygen and glucose (sugar) when you inhale.  Your respiratory system eliminates carbon dioxide and some of the water through your lungs when you exhale.  The digestive system absorbs glucose from food and the circulatory system carries oxygen and glucose to your lungs.  1. Nose (or mouth)  2. Pharynx  3. Trachea  4. Bronchi  5. Lung  Air enters through nostrils and moves into nasal cavities.  Nose hair called **cilia** traps bacteria.  The pharynx is the throat.  The trachea is your windpipe.  Sneezing and coughing expels irritating particles from your body.  The bronchi is the 2 passages that carry air to the lungs.  Alveoli are tiny air sacs that specialize in the movement of gases between air and the capillaries.  After air enters the alveoli, oxygen passes through the wall of the capillaries into the blood. Carbon dioxide and water pass from the blood into the alveoli.  In the beginning there is a lot of carbon dioxide. As blood moves through the capillary, oxygen attaches to hemoglobin and carbon dioxide moves into the lungs to be exhaled.  Your lungs can absorb a large amount of oxygen because of the large surface area of the alveoli.  Rib muscles and the diaphragm are used for breathing.  When you inhale, the rib cage moves up and out while the diaphragm contracts and flattens.  When you exhale, the rib cage returns to its original position and the diaphragm relaxes and moves up. |