How Does the Respiratory System Work?
What is the function of the respiratory system?
What is the function of the respiratory system?

• To get oxygen from the environment into the body
• To remove carbon dioxide and other waste products from your body
How do the gasses get to and from the cells?
How do the gasses get to and from the cells?

- Oxygen enters your body when you inhale
- Transported to the cells by red blood cells
- Cells use oxygen and glucose to release energy
- CO₂ is the waste product and high levels can damage cells
- The blood takes CO₂ back to the lungs
What are the organs of the respiratory system?
What are the organs of the respiratory system?

1. **Nose and Mouth**
   - Air enters and is filtered by the cilia (tiny hairs)
   - Mucus (sticky liquid) traps particles
   - Nasal cavity warms air

2. **Trachea**
   - Windpipe, tube like structure where air passes through

3. **Epiglottis**
   - Keeps air from entering stomach and food from entering the lungs
What are the organs of the respiratory system?

4. Lungs
   • Large organs located on either side of your heart

5. Bronchial Tubes
   • Moves air into the lungs
   • Branches through the lungs into smaller tubes
   • Moves air into alveoli

6. Alveoli
   • Tiny air sacs with walls only one cell thick
   • Air passes and diffuses into the blood
   • CO₂ waste passes from blood into alveoli
Healthy Lung

Unhealthy Lung
What are the organs of the respiratory system?

7. Rib Cage
   • Encloses a space called the thoracic cavity
   • Ribs are connected by cartilage allowing it to expand

8. Diaphragm
   • Large muscle that contracts (pulls downward) when you inhale and pulls in air
SPEECH AND THE RESPIRATORY SYSTEM

1. **Air** from lungs is forced between vocal cords
2. **Vocal cords** vibrate
3. **Sound waves** generated
4. **Sound waves** are shaped to form specific sounds.
5. Sound waves travel through air and become **speech**
OTHER MOVEMENTS OF THE RESPIRATORY SYSTEM

- Coughing
- Sneezing
- Sighing
- Yawning
- Laughing
- Hiccupping
- Etc.