

# The Respiratory System

**Circulatory system, respiratory system, and digestive system** all work to make respiration possible.

The purpose of the respiratory system is to **take in oxygen and get rid of carbon dioxide**.

**Major organ** of the respiratory system is the **lungs**.

When we **inhale** (breathe in):

cells in our body use oxygen that we breathe in,  
which causes **the level of oxygen to be lower when we exhale**

When we **exhale** (breathe out):

cells in our body make carbon dioxide,  
which causes the **level of carbon dioxide to be higher when we exhale**

These gases are exchanged in the **alveoli**.

## **Respiratory Disorders:**

Asthma, Bronchitis, Lung cancer

**Nasal cavity**- incoming air is **warmed, moistened and filtered**

**Larynx**- part of the respiratory system known as the **voice box**

**Diaphragm**- This is a muscle that helps you breathe

Inhale: diaphragm contracts, and chest cavity increases, pressure decreases

Exhale: diaphragm relaxes, and chest cavity decreases, pressure increases

**Vocal chords**- folds of connective tissue that stretch across the opening of the trachea and **produce sound**

**Inhale**- the process of **breathing in**

**Exhale**- the process of **breathing out**

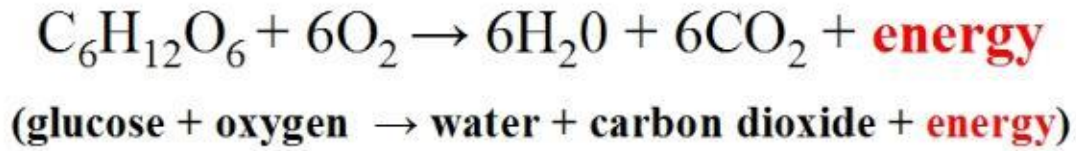
**Vital Capacity**: total volume of air your lungs can hold

Bigger person has a higher vital capacity

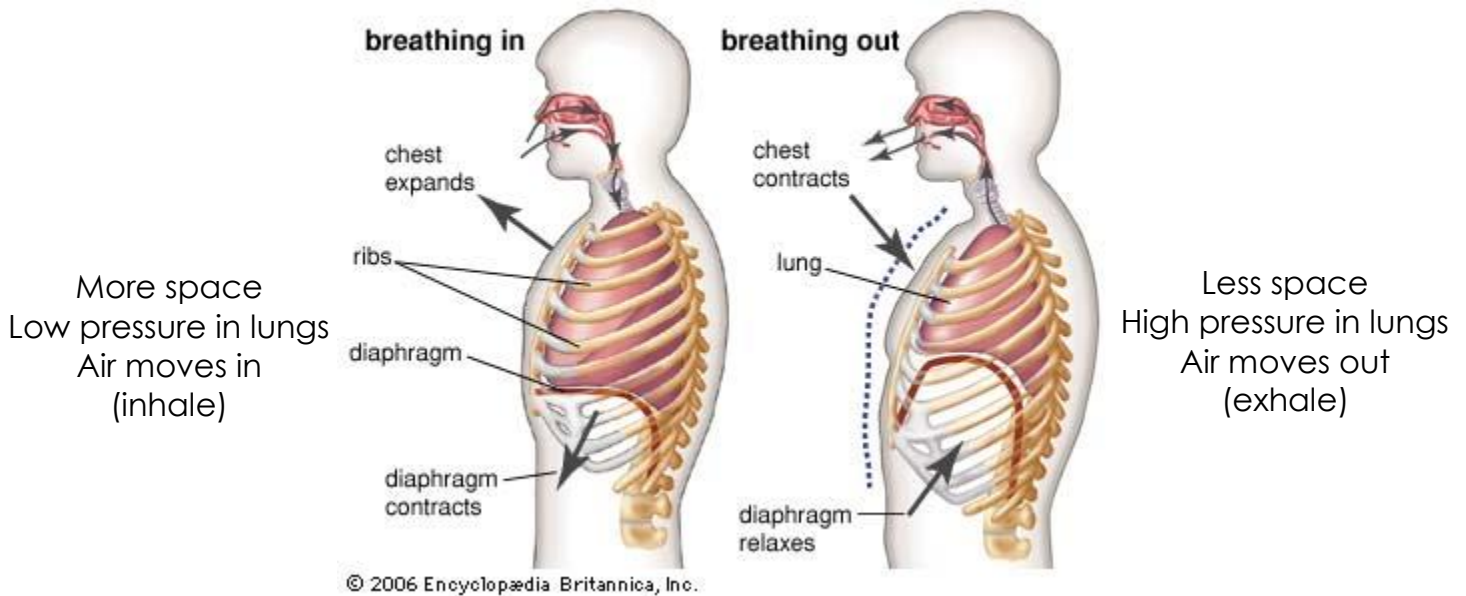
Athletes have a higher vital capacity

**Diffusion**- the movement of molecules from high concentration to low concentration

The formula for cellular respiration is:



Breathing:



You will need to be able to fill in a respiratory system diagram for the test.