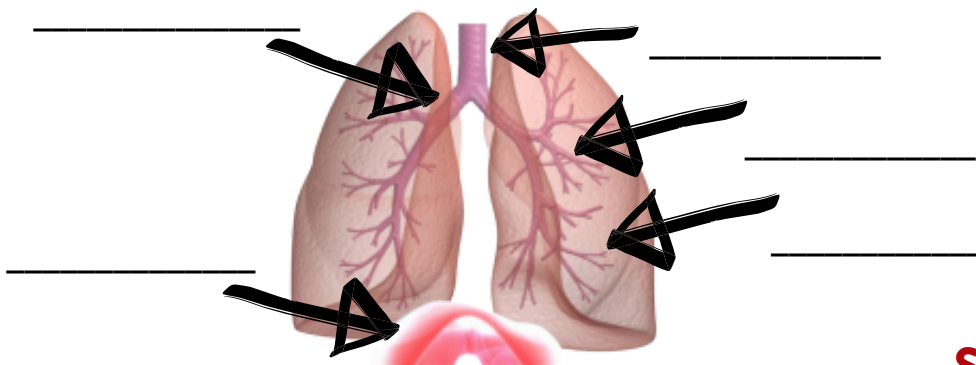


**Lungs** are the main organ involved in respiration.



The **diaphragm** changes shape during ventilation -

\_\_\_\_\_ - Contracts and flattens

\_\_\_\_\_ - Relaxes and becomes dome shaped

### Spirometer Trace Changes in Exercise -

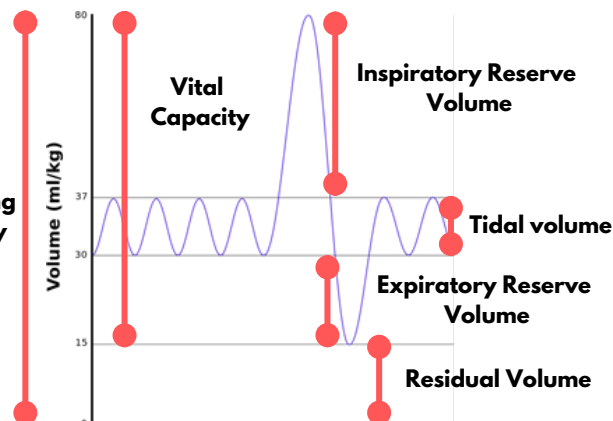
Tidal volume and minute ventilation \_\_\_\_\_

↓ Inspiratory reserve volume and expiratory volume \_\_\_\_\_

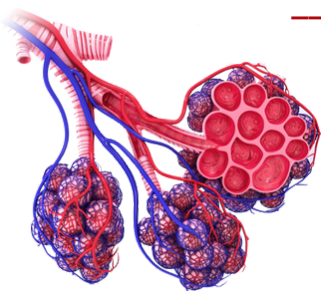
Residual volume \_\_\_\_\_



Total Lung Capacity



### Spirometer Trace -



## Applied Anatomy and Physiology - Respiratory System

### Gas Exchange -

Where the waste product **carbon dioxide** diffuses out of the blood and \_\_\_\_\_ diffuses into the blood. This takes place in the \_\_\_\_\_.

This is possible because of the concepts of **diffusion, partial pressure and concentration gradients**

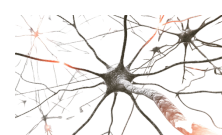
Each gas will diffuse down their own concentration gradient

\_\_\_\_\_ is the lifestyle choice with the greatest number of direct negative effects on the respiratory system



**Chemical**

Regulation of Pulmonary Ventilation



**Neural**



**Baroreceptors**



- Irritation of the \_\_\_\_\_ and \_\_\_\_\_
- Damaged cilia
- \_\_\_\_\_ constricts the bronchioles
- Carbon monoxide exposure
- Damaged alveoli