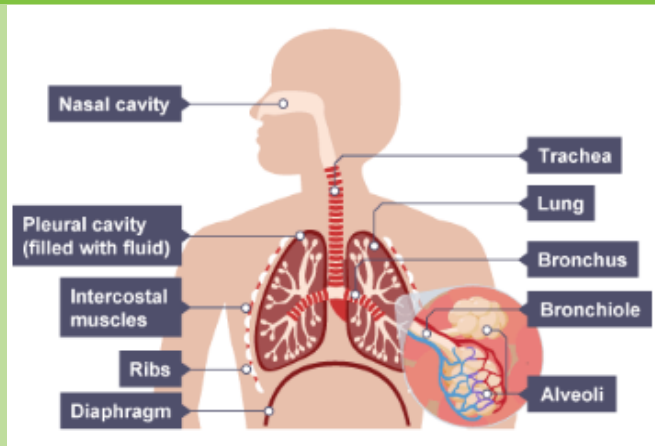


## The Respiratory System



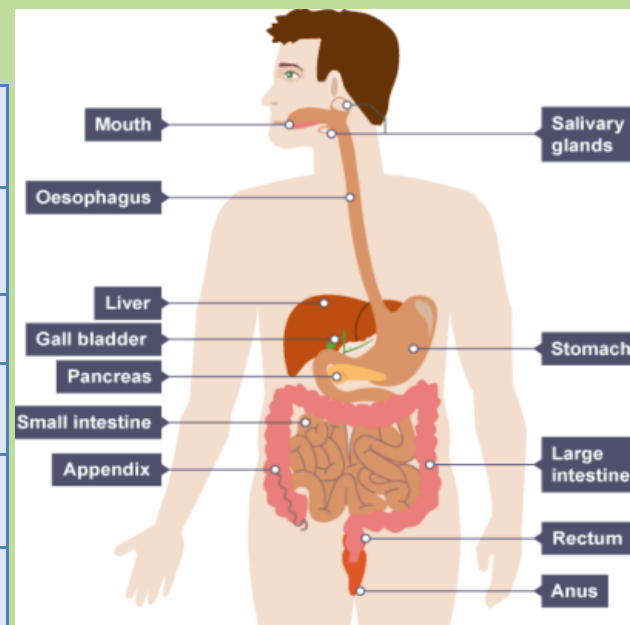
	Inhaling (breathing in)	Exhaling (breathing out)
Diaphragm	Contracts and moves downwards.	Relaxes and moves upwards.
Intercostal muscles	Contract, moving the ribs upwards and outwards.	Relax, letting the ribs move downwards and inwards.
Movement of air	Moves into the lungs.	Moves out of the lungs.

**Asthma** affects the bronchioles, the small tubes that carry air in and out of the lungs. If you have asthma your airways can become inflamed, swollen and constricted (narrowed), and excess mucus is produced.

**Smoking** damages the ciliated cells that line your airways. These cells remove mucus by wafting it out of your lungs. If the cilia are damaged, smokers need to cough hard to remove the sticky mucus.

Trachea	This is the tube from the larynx to the bronchi. The trachea is also known as windpipe.
Bronchi	The bronchi are the two air tubes that branch off from the trachea and carry atmospheric air directly into the lungs.
Bronchioles	Smaller tubes that branch off the bronchi like tree limbs.
Alveoli	Alveoli are tiny air-sacs located at the end of the bronchioles – this is where gas exchange takes place.
Nasal cavity	This is the preferred entry for air, lined with hairs and mucus to trap dust & dirt.
Larynx	Contains the vocal cords and creates voice sounds.
Diaphragm	Dome-shaped muscle involved in the breathing process.

## The Digestive System



Mouth	Food is mechanically broken down by the teeth thereby increasing the surface area.
Oesophagus	Connects the mouth to the stomach and moves food down to the stomach by peristalsis.
Stomach	Muscular bag that secretes hydrochloric acid and churns up the food.
Liver and gall bladder	The liver produces bile which neutralises the stomach acid. Bile is stored in the gall bladder.
Pancreas	Produces digestive enzymes (amylase, protease and lipase).
Small intestine	Food is broken down by enzymes and nutrients are absorbed into the blood stream.
Large intestine	This is also known as the colon and connects the small intestine to the rectum. Water-reabsorption takes place here.
Rectum	This connects the large intestine to the anus and stores faeces.
Anus	Faeces leaves the body here in a process called egestion.

**Enzymes** break down large insoluble molecules into small soluble molecules that can be absorbed into the blood stream.