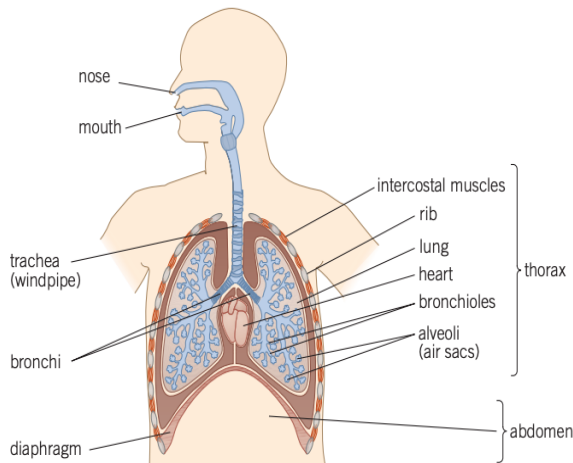


Breathing			Alcohol and Digestion			Glossary		
1	Which gas does not change in percentage between inhalation and exhalation?	Nitrogen	1	When can medicinal drugs be dangerous?	When they are taken in a way that wasn't prescribed	1	addiction	A need to keep taking a drug in order to feel normal.
2	Does the following process describe inhaling or exhaling? <i>The ribcage moves downwards and inwards, the diaphragm relaxes and moves upwards, the volume in the lungs decreases and air is pushed out</i>	Exhaling	2	What is the term used to describe when the body gets so used to a drug that it doesn't feel it can cope without it?	Addiction	2	alcoholic	A person who is addicted to alcohol.
3	Which process is the oxygen which you inhale used for?	Respiration	3	How can alcohol be passed to a foetus?	Through the placenta	3	alveolus	Small air sacs found at the end of each bronchiole where gas exchange takes place with the blood.
4	Does the following process describe inhaling or exhaling? <i>The ribcage is pulled upwards and outwards, the diaphragm contracts and moves downwards, the volume in the lungs increase and air rushes in</i>	Inhaling	4	Why is alcohol a depressant?	It slows down the body's reactions	4	anus	Muscular ring through which faeces pass out of the body.
5	How are medicinal drugs different to recreational drugs?	Medicinal drugs have positive health benefits whereas recreational drugs are for enjoyment	5	What are the consequences of foetal alcohol syndrome?	The baby can have learning difficulties, facial problems and a poor immune system	5	asthma	A lung disorder in which inflammation (swelling) causes the bronchi to swell and narrow the airways, creating breathing difficulties.
			6	What are three harmful chemicals in tobacco smoke?	Tar, nicotine and carbon monoxide	6	balanced diet	Eating food containing the right nutrients in the correct amounts.
			7	What is meant by a balanced diet?	All of the nutrients are included in the right amounts	7	bile	Substance that breaks fat into droplets.
			8	What is the role of protein in the diet?	To be used for growth and repair	8	dietary fibre	Parts of plants that cannot be digested. It helps the body to eliminate waste by providing bulk to keep food moving through the digestive system.
			9	What is the role of dietary fibre?	To keep food moving through the gut	9	digestion	Process in which large molecules are broken down into smaller molecules.
			10	What must you do to prepare food for a food test?	Crush the food with a pestle and mortar, add a few drops of water and mix well			
			11	What is the test for sugar?	Add a few drops of Benedict's solution, heat in a water bath and then if the solution turns orange-red, sugar is present			
			12	What is meant by a deficiency?	When a person does not have enough of a certain vitamin or mineral in their diet			
			13	What is the role of the large intestine?	To absorb any water that has been left in the undigested waste			

### Gas exchange and breathing

- **Gas exchange** is the process of taking in oxygen and giving out carbon dioxide
- This occurs in the **respiratory system**
- The proportions of gases in the air we **inhale** and **exhale** changes due to using oxygen in **respiration** and producing carbon dioxide



### What happens when you breathe in and out

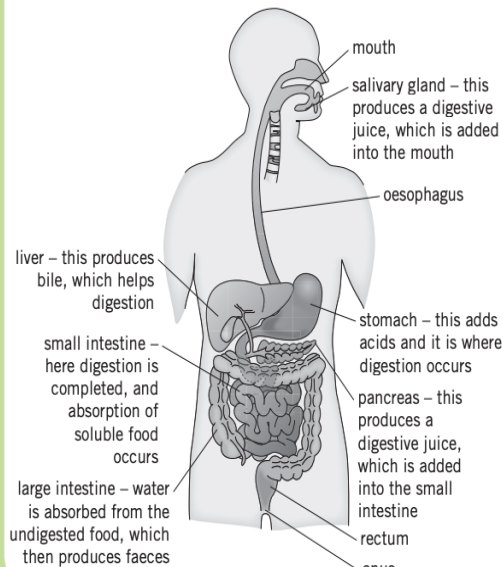
#### when you breathe in (inhale)

- muscles between the ribs contract
- ribs are pulled up and out
- diaphragm contracts and flattens
- volume of the chest increases
- pressure inside the chest decreases
- air rushes into the lungs

#### when you breathe out (exhale)

- muscles between ribs relax
- ribs are pulled in and down
- diaphragm relaxes and moves up
- volume in the chest decrease
- pressure inside the chest increases
- air is forced out of the lungs

### The digestive system



### Drugs

- **Drugs** are chemicals that affect the way that our body works
- **Medicinal drugs** are used in medicine, they benefit health
- If medicinal drugs are not taken in the correct way they can harm health
- Examples include antibiotics and pain killers

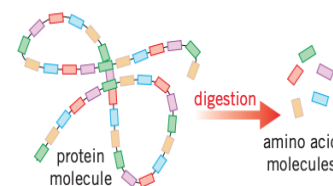
- **Recreational drugs** are taken by people for enjoyment
- Recreational drugs normally have no health benefits and can be harmful for health
- Examples include alcohol and tobacco

- Drug **addiction** is when your body gets so used to a drug, it feels it cannot cope without it
- If someone who has an addiction stops taking the drug, they will experience **withdrawal symptoms**

### Enzymes

- **Enzymes** are biological **catalysts**, they speed up the digestion of **nutrients**
- Each enzyme is specific to each nutrient
- The way the enzyme and nutrient bind with each other is called a lock and key model

- **Carbohydrases** break **carbohydrates** down into simple sugars
- **Proteases** break **proteins** down into amino acids
- **Lipase** breaks **lipids** (fats) down into fatty acids and glycerol



### Nutrients

- A **balanced diet** involves eating the right amount of nutrients for your body to function
- Not eating enough of a nutrient means you have an unbalanced diet, and this can lead to a **deficiency**

Nutrient	Role in your body
carbohydrates	main source of energy
lipids	fats and oils provide energy
proteins	growth and repair of cells and tissues
vitamins and minerals	essential in small amounts to keep you healthy
water	needed in all cells and body fluids
fibre	provides bulk to food to keep it moving through the gut