The digestive system	
Anus	Where waste food is eliminated from the body.
Bile	An alkaline solution that emulsifies fats and neutralises the hydrochloric acid passing from the stomach to the small intestine.
Digestive system	All of the organs working together to digest and absorb food.
Emulsification	When fats are broken down into smaller droplets to increase their surface area for digestion.
Gall bladder	Where bile is stored.
Large intestine	Where excess water is absorbed.
Liver	Where bile is produced.
Oesophagus (gullet)	Tube connecting the mouth to the stomach. Food moves along by peristalsis.
Peristalsis	The wave of muscle contractions that moves food along the oesophagus.
Salivary gland	Produces saliva to moisten food.
Small intestine	Where absorption of soluble food takes places.
Stomach	A muscular bag that mixes food with enzymes and acid.
Villi	Small, finger-like, projections on the wall of the small intestine that increase the surface area for absorption.
Physical digestion	Using teeth to cut and grind food into smaller pieces.
Chemical digestion	Enzymes break down large, insoluble food into small, soluble molecules that can be absorbed by the blood.

Enzymes	
Absorption	When soluble food molecules pass through the wall of the small intestine into the blood.
Active site	The part of an enzyme where a reaction takes place.
Amylase	An enzyme which breaks down starch.
Carbohydrases	Enzymes that break down carbohydrates into simple sugars.
Catalyst	A chemical that speeds up the rate of a reaction without being used up itself.
Denatured	A permanent change in the shape of an enzyme that stops it working.
Enzyme	Biological catalysts that speed up chemical reactions in living organisms.
Lipases	Enzymes that break down lipids (fats) to fatty acids and glycerol.
Lock and key	A simplified model of enzyme action. Molecules have to be the correct shape to fit into the active site of the enzyme.
Optimum	Refers to the fastest rate of enzyme activity.
Proteases	Enzymes that break down proteins to amino acids.
Factors affecting the rate of enzyme activity	Temperature and pH.

Food tests	
Benedict's reagent	Used to test for simple sugars.
Biuret solution	Used to test for proteins.
Iodine	Used to test for starch.
Sudan III	Used to test for lipids (fats).
Test for carbohydrate (sugars)	Add Benedict's reagent and heat. If simple sugars are present a brick-red precipitate will form.
Test for fats	Add Sudan III to a solution of the food being tested. Shake. A red-stained oil layer will separate out and float on the water surface if fat is present.
Test for proteins	Add Biuret solution. If a light purple colour is produced then protein is present.
Test for starch	Add iodine. If a blue/black colour is produced then starch is present.

Heart and circulation	
Aorta	The main artery that transports oxygenated blood from the left ventricle to the body.
Artery	Blood vessels that carry blood away from the heart.
Capillary	Blood vessels that carry blood from arteries to veins.
Coronary arteries	The arteries that supply the heart with oxygen-rich blood.
Deoxygenated	Blood that contains little oxygen.
Double circulation	Blood that flows in two circuits around the body. Fom the heart to the lungs & from the heart to the rest of the body
Heart	An organ that pumps blood around the body in a double circulatory system.
Left ventricle	Pumps blood around the rest of the body.
Oxygenated	Blood that is rich in oxygen.
Pulmonary artery	Transports deoxygenated blood from the right ventricle to the lungs.
Pulmonary vein	Transports oxygenated blood from the lungs to the left atrium.
Right ventricle	Pumps blood to the lungs.
Valves	Ensure that blood only flows in one direction. Found in the heart and in veins.
Vein	Blood vessels that carry blood into the heart.
Vena cava	The main vein that transports blood from the body to the right atrium.
Adaptations of arteries	Thick, elastic walls to withstand pressure.
Adaptations of capillaries	Walls are one cell thick and permeable, allows substances to diffuse in/out of the blood.
Adaptations of veins	Thinner walls, large lumen and valves to prevent backflow of blood.

Blood	
Biconcave	Concave on both sides. Adaptation of red blood cells that increases their surface area.
Blood	A tissue consisting of plasma, in which the red blood cells, white blood cells and platelets are suspended.
Haemoglobin	The protein in red blood cells that binds oxygen.
Plasma	The liquid part of blood which transports substances around the body e.g. carbon dioxide.
Platelets	Fragments of cells which initiate blood clotting.
Red blood cells	Contain haemoglobin which binds oxygen to transport it from the lungs to

	the tissues.
White blood cells	Help to protect the body against infection.
Coronary heart disease	
Artificial pacemaker	An electrical device used to correct irregularities in the heart rate.
Coronary heart disease (CHD)	Fatty materials build up inside the coronary arteries. Blood flow is reduced and less oxygen and glucose reach the heart for respiration.
Statin	A drug used to treat high blood cholesterol.
Stent	A small medical device made from mesh used to keep arteries open.
Risk factors for CHD	Genetic factors, gender, diet and smoking.

Gas exchange	
Alveoli	Tiny air sacs in the lungs which are the site of gas exchange between blood and air.
Bronchi	Tube leading from the trachea to a lung.
Capillary network	Tiny blood vessels that surround the alveoli to enable efficient gas exchange.
Gas exchange	Taking in oxygen and releasing carbon dioxide.
Trachea	The windpipe – it leads from the nose and mouth to the two bronchi.
Ventilation	The movement of air into and out of the lungs.
Adaptation of the alveoli	• Large surface area to volume ratio • Exchange surface is very thin • Good blood supply • Moist