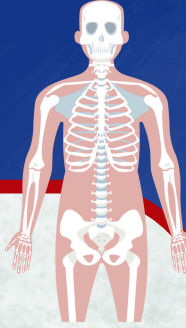


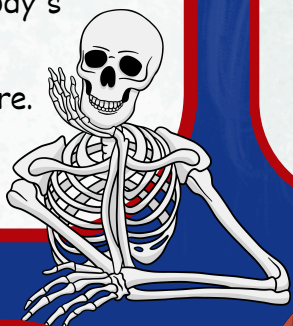
Skeletal System

- Tendons** – Fibrous tissues that join bone to muscle.
- Ligaments** – Strong, flexible fibre that connects bones to other bones.
- Flexion** - Movement decreasing the angle between body parts (bending).
- Extension** - Movement increasing the angle between body parts (straightening).
- Dorsi-Flexion** - Flexing the toes so that they move closer to the shin.
- Plantar-Flexion** - Extending the toes down, away from the shin.
- Adduction** - Movement of a body part toward the body's midline.
- Abduction** - Movement of a body part away from the body's midline.
- Rotation** -The action of rotating around an axis or centre.
- Circumduction** - Moving in a circular shape. Allows for 360 degrees of movement.



Effects of Exercise

- Short Term effects** – What happens to the body during exercise.
- Long term effects** – What happens to the body in the weeks and months following continued exercise.
- Bone Density** – The amount of minerals in bone tissue.
- Hypertrophy** – When something increases in size and strength.
- Minute Volume** – The amount of air inspired per minute.
- Capillarisation** – An increase in the number of capillaries.



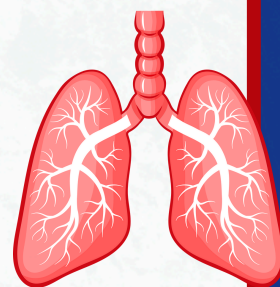
Cardiovascular System

- Cardiovascular system** -The system formed by the heart, blood and blood vessels. AKA the circulatory system.
- Blood Vessels** - Responsible for transporting blood; arteries, veins and capillaries.
- Blood Pressure** - The pressure of the blood against the walls of the walls of the blood vessels.
- Systole** - The phase of the heartbeat when the heart contracts and pumps blood from the chambers into the arteries.
- Diastole** - The phase of the heartbeat when the heart relaxes and lets the chambers fill with blood.
- Arteries** - Blood vessels that takes blood away from the heart.
- Veins** - Blood vessels that takes blood back to the heart.
- Capillaries** - Tiny blood vessels that link arteries with veins.
- Vascular Shunting** - The process that increases blood flow to active areas during exercise by diverting blood away from inactive areas.
- Platelets** - Responsible for the clotting of blood.
- Plasma** - The fluid part of blood, essential for transporting it around the body.
- Red Blood Cells** - Contain haemoglobin and are responsible for transporting oxygen around the body.
- White Blood Cells** - Are vital in fighting off disease or illness.
- Vasodilation** - When blood vessels get bigger (dilate), which cools you down.
- Vasoconstriction** - When blood vessels get smaller (constrict), which warms you up.



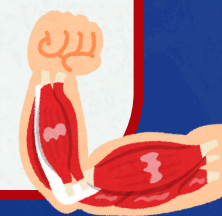
Respiratory System

- Respiratory system** - The system of organs and vessels that gets oxygenated blood to the body tissues.
- Vital Capacity** - The greatest amount of air that can be made to pass into and out of the lungs.
- Tidal Volume** - The amount of air inspired and expired with each normal breath.
- Respiration** - The movement of air from outside the body into the cells within tissues.
- Diaphragm** - A dome-shaped muscle that separates the chest from the rest of the body.
- Trachea** - The tube that takes air into the body. AKA the windpipe.
- Bronchus** - Tube along which air passes from the trachea to the lungs.
- Bronchioles** - Smaller branches coming off the bronchi.
- Alveoli** - Tiny sacs at the end of the bronchioles, where gas exchange takes place.
- Haemoglobin** - A type of protein found in every red blood cell. Attaches to oxygen and transports it around the body.



Muscular System

- Voluntary Muscle** - A muscle which is controlled by an individual.
- Involuntary Muscle** - A muscle which is not under an individual's control.
- Cardiac Muscle** - An involuntary muscle found in the wall of the heart.
- Antagonistic Pair** - Two muscles working together. One contracts while the other relaxes.
- Agonist** - The muscle which is contracting. Also known as the 'prime mover'.
- Antagonist** - The muscle which is relaxing.
- Type I** - Slow twitch muscle fibre.
- Type IIa** - Fast twitch muscle fibre.
- Type IIx** - Fast twitch muscle fibre.



Anaerobic & Aerobic:

- Aerobic Respiration** - The process of releasing energy from glucose, using oxygen.
- Anaerobic Respiration** - The process of releasing energy from glucose, without oxygen.
- Aerobic Exercise** - Exercising at a moderate intensity, allowing the body to utilise oxygen for energy production.
- Anaerobic Exercise** - Exercising at a high intensity, not allowing the use of oxygen for energy production.
- Lactic Acid** - A toxic acid produced in muscles during anaerobic exercise. Causes muscle cramps.
- Oxygen Debt** - The amount of oxygen needed at the end of physical activity to break down any lactic acid.
- Fats** - A rich source of energy, especially for long periods of exercise.
- Carbohydrates** - The body's main source of energy. Split into complex and simple forms.
- Heart Rate** - The number of times the heart beats per minute.
- Stroke Volume** - The amount of blood pumped by the heart each beat.
- Cardiac Output** - The amount of blood pumped by the heart each minute.
- Cardiac Output = Stroke Volume X Heart Rate.

