

GCSE Physical Education Glossary- Important terms and definitions

Term	Definition	G A R
Abduction	Movement of limb away from the mid-line of the body	
Adduction	Movement of limb towards mid-line of body	
Adaptation	Body responds to training by changing / improving to cope with level of activity	
Aerobic	Working using 'oxygen' during low intensity sustained activity (ie jogging)	
Agility	Ability of body to change direction at speed and control.	
Alveoli	Air sacs in the lungs where gas is exchanged [ie oxygen exchanged for carbon dioxide]	
Anaemia	Condition where there is lack of red blood cells in the blood	
Anaerobic	Production of energy without the use of oxygen. High intensity short duration [sprint]	
Anabolic Steroids	A training drug, banned in sport that promotes bone and muscle growth.	
Antibody	Chemical that destroys a pathogen	
Antagonist	Muscles work in pairs to produce movement at joints. As one muscle contracts the partner muscle relaxes.	
Antagonistic Pair		
Artery	A muscular tube that carries blood away from the heart	
Atrophy	Muscle wastage (through age, illness, malnutrition or lack of use)	
Atria	2 chambers that collect blood in the heart	
Axis	A line around which the body / part can turn	
Basic skill	A simple skill requiring little concentration to execute / perform	
Balance	Ability to maintain body's position above the centre of gravity	
Blood pressure	Force of blood pushing against walls of arteries during the contraction of heart muscle	
Body composition	The percentage of body weight which is fat, muscle and bone	
Body Mass Index	A measurement of body fatness using height and weight	
Bronchus	Tube which passes air from trachea into lungs	
Bronchioles	Smaller branches coming off bronchi	
Calcium	A vital element for healthy bones – the best sources are milk, cheese and yoghurt	
Capillaries	Microscopic blood vessels that link arteries to veins	
Carbohydrates	The body's main source of energy – ' fast release energy '	
Carbo - loading	Increased intake of carbohydrate before endurance events, leads to increased amounts of glycogen in muscles	
Cardiac muscle	Heart muscle, beats without tiring (involuntary)	
Cardiac output	Amount of blood pumped out of the heart each minute	
Cardiovascular	Relating to the heart and blood vessels	

Cardiovascular Fitness	The fitness of the heart, blood and blood vessels and the ability to exercise the entire body for long periods of time	
Cartilage		
Circuit Training	A series of exercises completed at 'stations' in a circular order	
Circulatory System	The system that transports oxygenated blood and nutrients to the body (comprises of heart / blood and blood vessels)	
Circumduction		
Closed skill	A skill learnt in a predictable environment, eg a player taking a penalty	
Complex skill	A skill requiring a lot of concentration / attention	
Continuous training	Aerobic training, whole body, steady sustained activity, ie running, swimming, rowing	
Cool - down	A period of exercise after a main activity	
Coordination	Ability to use two or more body parts together	
Cusp	A triangular fold or flap of a heart valve	
Deviance	Behaviour that goes against the moral values or laws of the sport	
Diuretic	Used to increase amount of urine produced, mask drugs , rapid weight loss	
Diaphragm	Main muscle used in breathing	
Dislocation	A bone or joint is forced out of its normal position	
Distributed practice	Intervals between skill practice in a training session for rest or mental rehearsal	
Doping	Use of illegal substances to obtain an unfair advantage	
Dorsi-Flexion		
D.R.A.B.C	Danger, Response, Airway, Breathing, Circulation	
Ectomorph	A Somatotype (Body type) with little fat, or muscle and a narrow shape	
Erythrocyte	Red blood cells	
Endomorph	A Somatotype (Body type) pear shaped, fatness	
Energy Balance	Energy consumed in food equals energy used up through exercise	
Exercise	Physical activity aimed at improving health	
Expiration	Breathing out	
Extension	The action of a muscles causing a limb to straighten at a joint	
Fartlek	Speed play- method of training in which we vary the pace and training conditions	
Fatigue	Tiredness as a result of physical activity, caused by a build up of lactic acid in the body	
Feedback	Information received during or after a performance about the performance	
Fitness	The ability to meet the demands of the environment	
F.I.T.T	Frequency, Intensity, Time, Type (ways in which we can overload an exercise program)	
Fixed Practice	Repeatedly practicing a whole skill within a training session	
Frontal axis	Imaginary line passing horizontally through the body from left to right, allows flexion and extension	

Frontal plane	Imaginary line dividing the body vertically from front to back. (Movement occurs in the frontal plane about the sagittal axis eg when performing a star jump)	
Flexibility	Range of movement possible at a joint	
Flexion	The action of a muscle causing a limb to bend at a joint	
Fulcrum	The point around which the lever rotates	
Gamesmanship	Bending the rules / laws of a sport without actually breaking them	
Gaseous Exchange	Oxygen is exchanged for carbon dioxide in the lungs	
Guidance	Information to aid the learning of a skill. This information can be given visually eg through demonstrations ; verbally eg by the coach explaining how to perform the technique; manually eg by physically moving the performer into the correct position; and mechanically eg using a harness in trampolining	
Glucose	Simple sugar used for energy in the body (found in carbohydrates)	
Glycogen	Store of energy as carbohydrates are stored in the muscle and liver	
Haemoglobin	A red protein in the blood that transports oxygen	
Health active lifestyle	A lifestyle that contributes to physical social and mental health	
Health	State of complete physical, social, and mental well being	
Heart rate	Number of times the heart beats per minute	
High organisation skill	A skill that cannot be broken down easily and practiced separately because the phases of the skill are closely linked eg a cartwheel, golf swing	
Hydration	Being hydrated means the body has the correct amount of water in cells, tissues and organs to function properly.	
Hypertrophy	Muscle enlargement, as a result of resistance / weight training	
Hypokinetic Disease	A disease caused by a lack of physical activity or a sedentary lifestyle	
Immune system	Structures and processes in your body that stop disease	
Interval training	Any training using alternating periods of very hard exercise and rest	
Inspiration	Breathing in	
Isometric contraction	Muscular contraction that results in no movement at a joint, muscle contracts but fibres remain the same length	
Isotonic contraction	Muscular contraction that causes movement at a joint. The movement can be concentric or eccentric	
Joint	A place where two or more bones meet	
Karvonen Formula	A test to find out an individual's optimum heart rate	
Lactic acid	Waste product of muscular action that builds up if oxygen is not available (a product of anaerobic respiration)	
Lactic accumulation	When lactic acid levels in the blood and/ muscle rise due to increased work intensity, eg moving from aerobic to anaerobic exercise.	

Leukocyte	White blood cells	
Levers		
Lifestyle choice	The choices we make about how we live and behave and the impact on our health	
Low organisation skill	A basic skill that can be broken down easily into different phases so that each part can be practiced separately , e.g. a tennis serve	
Ligament	Elastic tissue connecting bone to bone, stabilising movement at joints	
Maximum heart rate	Highest number of beats your heart makes during exercise (220 – age)	
Mesomorph	A Somatotype (Body type) muscular, wedge shaped	
Muscular endurance	Ability of muscle or muscle group to work very hard for long periods of time	
Muscular strength	The amount of force a muscle can exert against a resistance	
Macronutrient	A type of food required in relatively large amounts in the diet, carbohydrates and fats	
Massed Practice	Practice that occurs without rest between trials	
Mechanical advantage	2 nd class levers allow a large load to be moved with relatively small amounts of force	
Mechanical disadvantage	3 rd class levers cannot lift as heavy loads, with the same amount of effort, as 2 nd class levers due to the position of the effort and load from the fulcrum	
Muscle fibre types	Muscle fibres make up the skeletal muscle . the different types are type I type IIa and type IIx	
Micronutrient	A type of food required in relatively small amounts in the diet, vitamins and minerals	
Narcotic Analgesics	Drugs used to relieve pain	
Norm	A pattern or standard	
Nutrient	Basic food element that provides nourishment for the body	
Open skill	Skills performed in an unpredictable environment where the performer has to react and adjust due to the changing nature of the situation. Eg a player trying to pass a ball in netball	
Obesity	More than 20% over the standard weight for our height- our BMI	
Optimum weight	Most ideal weight for an individual sports person	
Ossification		
Over training	Training beyond your body's ability to recover	
Oxygen debt	The extra amount of oxygen needed to recover from anaerobic activity	
Pathogen	An agent that causes disease such as a virus	
Peptide Hormones EPO	Used to increase red blood cell production and therefore boost oxygen carrying capacity of blood	
Performance	Is the action or process of doing something, how well you do something	

Performance enhancing drugs	Drugs used to improve performance	
Physical fitness	Ability of body to meet the demands of the environment	
Plantar- Flexion		
Plasma	Fluid part of the blood	
Plyometric	Exercise where muscles use maximum force in short intervals of time	Plyometric
Power	Ability to contract muscles with speed and force in one explosive act (power = strength x speed)	
Prime movers	Or AGONISTS, muscles that are responsible for movement at joints	
Progressive Overload	Principle of training. We must work our body harder than normal in order to improve Working with enough intensity to improve performance, over a period of time	
Proteins	Used to build repair muscle	
Pulmonary	To do with the lungs	
Reaction time	The time between the presentation of stimulus and the onset of movement	
Recovery Rate	How long the heart rate takes to get back to normal	
Rest	Time given to recovery	
Recovery	Repair of damage to the body caused by training or competition, when adaptation and improvement takes place	
Resistance	Weight or load which muscles may be required to lift / move / push / throw	
Respiration	The process in which the body takes in oxygen and gives out carbon dioxide(Breathing)	
Respiratory rate	Number of breaths per minute	
Reversibility	Principle of training that states that any effects of training are not permanent and will be lost when training stops for a long period of time (ie through injury)	
R.I.C.E	Rest Ice Compression Elevation	
Rotation	Turning movement of a body part about the long axis of the joint	
Sagittal axis	Imaginary line passing horizontally through the body from front to back allows abduction and adduction	
Sagittal plane	Imaginary line dividing the body vertically into left and right sides	
Sedentary lifestyle	Where there is little, irregular or no physical activity	
Serotonin	Hormone that triggers the clotting process / 'feel good ' hormone	
Somatotyping	Method of classifying body types (endomorph, ectomorph, mesomorph)	
Sprain	A damaged ligament	
Strain	Torn twisted muscle	
Specificity	Principle of training matching training method or exercise to the sporting activity	
Speed	How fast an individual can move the body or part of body from one place to another.	

Sportsmanship	Qualities of fairness, following the rules , being gracious in defeat and victory	
Stamina	Ability of heart and lung systems to exercise over a sustained period of time	
Strength	Ability of muscles to contract with force or lift a weight	
Stimulants	Drugs that speed up reactions, increase alertness or raises confidence or aggression	
Stimulus	Something that produces a response (e.g. the sound of the starters pistol)	
Stroke volume	Amount of blood pumped out of the heart in one contraction	
Tendons	Connective fibres that attach muscles to bones	
Tidal volume	Amount of air breathed in or out of the lungs during one breath	
Trachea	Tube that takes air into the chest (windpipe)	
Training zone	Range of heart rate within which we need to work for specific training effects	
Training threshold	The heart rate boundaries we need to work between when training	
Transverse plane	Imaginary line dividing the body from front to back	
Type I	Slow twitch muscle fibres, suited to low intensity aerobic work, good oxygen supply resistant to fatigue	
Type IIa	Fast twitch muscle fibres, used in anaerobic work, can be improved through endurance training	
Type IIx	Fast twitch muscle fibres, used in anaerobic work and can produce much greater force than other fibres but fatigue quickly. (sprinting)	
Variable practice	A training session that includes frequent changes of task so that the skill can be repeated in different situations	
Vascular		
Veins	Less elastic blood vessels that contain valves preventing back flow which return blood to heart	
Vena cava	Brings oxygenated blood from the body to the right atria	
Vital capacity	Maximum amount of air we exhale after inhaling deeply	
Vitamins	Chemicals required by the body for good health	
VO2 max	Maximum amount of O2 that can be transported to and used by muscles during 1 min of exercise	
Voluntary muscle	Muscles that work under our direct control	
Weight training	Using weights as a form of resistance training	
Vasodilation	Blood vessels open to allow more blood to pass through. (Internal lumen widens)	
Vasoconstriction	Blood vessels narrow to decrease blood flow (the internal lumen narrows)	
Vascular Shunting	Process that increase blood flow to active areas by diverting blood away from inactive areas	
Vein	Tube that carries blood back to the heart	
Ventricles	2 chambers of the heart, pump blood out of the heart	

Vertical axis	Imaginary line passing vertically through the body, allows rotation of the body in an upright position	
----------------------	--	--