

## GCSE (9-1) Physical Education (first teaching September 2016)

# GLOSSARY OF TERMS

<b>Abduction</b>	Movement away from the midline of the body.
<b>Adduction</b>	Movement towards the midline of the body.
<b>Aerobic exercise</b>	Use of oxygen for the duration of the exercise. Usually at moderate intensity at a continuous rate e.g. long distance running.
<b>Agility</b>	The ability to change direction at <i>speed</i> ; nimbleness.
<b>Agonist</b>	The muscle that works to create the movement.
<b>Antagonist</b>	The muscle that works in the opposite way of the <i>agonist</i> .
<b>Antagonistic muscle action</b>	A pair of muscles that work together to produce movement with one muscle contracting whilst the other muscle relaxes. E.g. the upper arm, as the arm flexes the bicep contracts and the triceps relaxes.
<b>Anaerobic exercise</b>	Exercise which does not allow for the predominant usage of oxygen. Usually high or very high intensity for a short period of time. E.g. sprinting up a hill.
<b>Articulating bones</b>	Bones that move relative to each other at a joint.
<b>Axes</b>	A line around which the body can turn.
<b>Balanced diet</b>	A diet that contains the correct proportions of carbohydrates, fats, proteins, vitamins, minerals, and water necessary to maintain good health.
<b>Beta Blockers</b>	A drug used to control heart rhythm and lower blood pressure.
<b>Blood vessels</b>	Tubular structures that carry blood around our bodies.
<b>Breathing rate</b>	The number of breaths taken in a minute.
<b>Capillarisation</b>	The development of blood capillaries in the body which increases through long term effects of exercise.

<b>Cartilage</b>	A tough, elastic, fibrous connective tissue.
<b>Cardiac output</b>	The volume of blood pumped per minute by each ventricle of the heart. Cardiac output = <i>stroke volume</i> x <i>heart rate</i> .
<b>Cardiovascular endurance</b>	The ability to continue exertion while getting energy from the aerobic system used to supply the body with energy. Also referred to as <i>stamina</i> .
<b>Circumduction</b>	The circular movement of a joint. It is a movement pattern that combines <i>flexion</i> , <i>extension</i> , <i>adduction</i> , and <i>abduction</i> .
<b>Closed skill</b>	Skills that are performed in a predictable environment. E.g. a Player taking a line out in Rugby.
<b>Commercialisation</b>	Links business and commerce into sport with a primary focus of profit which can lead to exploitation.
<b>Complex skill</b>	A skill which requires a lot of focus and decision making to perform.
<b>Confidence</b>	The degree to which a performer believes they have the ability to perform and complete tasks with success.
<b>Continuous training</b>	Training that involves activity without rest intervals. It can be performed at any intensity.
<b>Cool down</b>	The act of allowing physiological activity to return to normal gradually after strenuous exercise by engaging in less strenuous exercise.
<b>Coronary Heart Disease (CHD)</b>	Where the blood vessels are narrowed and blood flow and oxygen to the heart is reduced.
<b>Discrimination</b>	The unfair treatment of individuals whereby opportunities are not available to all of the different social groups.
<b>Deviance</b>	Behaviour that is either immoral or seriously breaks the rules and norms of the sport.
<b>Double circulatory system</b>	The human body has two circulatory loops in which blood circulates. One is oxygenated, and the other is deoxygenated. Systemic – the circulatory loop that controls blood flow from the heart to the rest of the working muscles and organs. Pulmonary - the circulatory loop that controls blood flow from the heart to the lungs.
<b>Energy balance</b>	Energy input = energy expenditure. This equation must balance for your body weight to remain constant.

<b>Ethnicity</b>	A state of belonging to a specific social group with common cultural or national traditions or beliefs.
<b>Exercise</b>	Activity that requires physical effort. Usually carried out to sustain or bring about improvements to health or fitness.
<b>Extension</b>	A straightening movement around a joint.
<b>Fartlek training</b>	Training which varies in intensity and duration and consists of bursts of intense effort alternating with less strenuous activity.
<b>Fatigue</b>	Muscle tiredness when the body has a lack of energy.
<b>Feedback</b>	Information that is given to a performer either during or after their performance with the aim of improving future performances.
<b>Fixator</b>	A muscle which acts as the stabilizer and helps the agonist work effectively of one part of the body during movement of another part.
<b>FIIT</b>	FITT outlines the key components of an effective exercise program: Frequency – the number of times exercise takes place Intensity – how hard and intense the exercise is Time – how long you exercise for Type - the kind of exercise that takes place.
<b>Fitness</b>	Your ability to meet the physical demands placed on you by the environment.
<b>Flexibility</b>	Range of movement available around a joint.
<b>Flexion</b>	A bending movement around a joint in a limb.
<b>Frontal axis of rotation</b>	An imaginary line which passes through the body horizontally from left to right, allowing flexion and extension.
<b>Frontal plane</b>	An imaginary line which divides the body from front to back vertically.
<b>Gamesmanship</b>	Where the laws of the game are interpreted in ways, which whilst not illegal, are not in the spirit of the game. Pushing the limits to gain unfair advantage.
<b>Gas exchange</b>	The movement of gases taking place at the alveoli and capillaries.
<b>Gender</b>	The state of being male or female.

<b>Golden triangle</b>	The links and relationship between sponsorship, sporting events and the media.
<b>Guidance</b>	Given to aid the learning of a skill. Visual: use of demonstrations that allow the performer to 'see' the skill Verbal: the coach will explain the technique Manual: the coach will physically manipulate the athlete through the skill Mechanical: use of apparatus or aids that assist the performer.
<b>Health</b>	The state of emotional, physical and social well-being.
<b>Heart rate</b>	Number of heart beats per minute.
<b>Hydration</b>	Having the appropriate level of water in the body for it to function optimally. When this level of water falls below optimal levels it is referred to as dehydration.
<b>Hypertrophy</b>	The increase in size of skeletal or cardiac muscle.
<b>Interval training</b>	Training that incorporates periods of exercise and rest. Circuit training – Series of alternate exercises performed at stations that focus on different muscle groups. Weight training – a method of training that uses free weights or resistance machines Plyometrics – involves jumping, bounding, hopping exercise HIIT – exercise that alternates between high intensity and periods of recovery.
<b>Lactic acid</b>	A waste product produced in the muscle tissues during strenuous exercise where the <i>anaerobic</i> energy system is in use.
<b>Levers</b>	1st Class: A lever in which the fulcrum is positioned between the load and the effort. 2nd Class: A class 2 lever has the load and the effort on the same side of the fulcrum, with the load nearer the fulcrum. 3rd Class: The effort is placed between the load and the fulcrum, and the effort must travel a shorter distance and be greater than the load.
<b>Ligament</b>	A short band of tough and flexible tissue connecting bones together and stabilise the <i>joint</i> .
<b>Longitudinal axis of rotation</b>	An imaginary line which passes through the body from front to back, allowing <i>abduction</i> and <i>adduction</i> .

<b>Mechanical advantage</b>	A <i>second class</i> lever allows a large load to be moved with a small amount of effort.
<b>Media</b>	Different forms of communication that can inform, educate and entertain people including social, internet, TV and newspapers.
<b>Mental preparation</b>	The rehearsal of a physical skill that takes place within the mind of the performer without any actual physical movement.
<b>Minute ventilation</b>	The volume of gas inhaled or exhaled from the lungs per minute.
<b>Muscle fibre types</b>	There are three types of muscle fibre that make up the skeletal muscles: Type I, slow twitch fibres suited to low intensity aerobic work. They can be used continuously for long periods without fatigue. Type IIa, fast twitch fibres suited to high intensity anaerobic work. Type IIx (old b), fast twitch fibres that generate a much greater force than other fibre types. They fatigue very quickly.
<b>Muscular endurance</b>	The ability to move your body and muscles repeatedly without <i>fatiguing</i> .
<b>Obesity</b>	The state of being very overweight, with a lot of excess body fat, usually classified using the BMI calculation of 30 or above.
<b>Open skill</b>	These are affected by the environment and are predominantly perceptual as they must be adapted to suit the environment. These skills are usually externally paced. E.g. a pass within a game situation in football.
<b>Overload</b>	A greater than normal stress that is applied on the body for training adaptations to take place.
<b>Physical activity</b>	Movement of the body by the skeletal muscles that requires energy expenditure.
<b>Progression</b>	Gradual increases in exercise in order for the body to adapt through <i>overload</i> .
<b>Rate of recovery</b>	The speed at which the body returns back to normal after exercise.
<b>Red blood cells</b>	Oxygen carrying cells containing haemoglobin.

<b>Redistribution of blood flow</b>	When you exercise the blood is diverted from inactive areas to the muscles that are being used. This action is completed through vasodilation and vasoconstriction. Also known as the vascular shunt mechanism.
<b>Reversibility</b>	Any adaptation that takes place as a result of training will be lost if you stop training.
<b>Role models</b>	Someone to be looked up to, (good role model) an example to follow.
<b>Rotation</b>	The turning of a body part about its long axis as if on a pivot.
<b>Sagittal plane</b>	An imaginary line which divides the body vertically into left and right sides.
<b>Self-esteem</b>	
<b>Simple skill</b>	Consists of basic movement actions that are not difficult to perform with few decisions to make. E.g. A chest pass, a straight up and down jump.
<b>Skilful movement</b>	A fluent and coordinated movement which is efficient, technically accurate and aesthetically pleasing.
<b>Skills continua</b>	A method of categorising skills along a continuum that acknowledged that whilst they are all different they can all be classified according to their level of difficulty.
<b>Specificity</b>	The training must be matched to the needs of the sporting activity and individual.
<b>Speed</b>	The ability to move quickly across the ground or move limbs rapidly through movements.
<b>Sponsorship</b>	The giving of money or goods to performers in order to get good publicity and/or increase profit.
<b>Sportsmanship</b>	Ethical, appropriate, polite and fair behaviour while participating in a game or athletic event; fair play.
<b>Stamina</b>	See <i>cardiovascular endurance</i> .
<b>Steroids</b>	Anabolic steroids are synthetic hormones that enhance physical performance.
<b>Stimulants</b>	Drugs used to raise physiological arousal in the body
<b>Strength</b>	The maximum force a muscle/group of muscles can apply against a resistance.
<b>Stroke volume</b>	The amount of blood pumped out of the heart (left ventricle - to the body) during each contraction.

<b>Synovial joint</b>	An area where two or more bones meet within a joint capsule and allows a wide range of movement to occur.
<b>Tendon</b>	A tendon is a tough yet flexible band of fibrous tissue which joins muscle to bone. Pliability?
<b>Tidal volume</b>	The amount of air which enters the lungs during normal inhalation at rest.
<b>Transverse axis of rotation</b>	Allows only forward and backward movement ( <i>flexion</i> and <i>extension</i> ) in the sagittal plane around this axis.
<b>Transverse plane</b>	An imaginary line which divides the body horizontally from front to back.
<b>Type 2 diabetes</b>	A metabolic disorder that affects how your body handles glucose. Often associated with obesity and can be controlled through changes to your diet.
<b>Violence</b>	Physical acts committed in sport that go beyond the accepted rules of play or the expected levels of contact within a contact sport.
<b>Warm up</b>	Preparatory exercises done to prepare the body and mind for physical activity.



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