A1 Components of physical fitness		
Aerobic endurance	The ability of the cardiorespiratory system to supply oxygen and nutrients to the muscles to sustain low to medium intensity work to delay fatigue.	E.g. Distance running, Rugby, Football
Muscular endurance	the ability of the muscular system to continue to contract at a light to moderate intensity to allow repetitive movements throughout a long event or game.	E.g. Rowing, Rugby
Muscular strength	The maximum force that can be generated by a muscle or muscle group to improve forceful movements within an activity.	E.g. Weight lighting
Speed	Distance divided by time to reduce time taken to move the body or a body part in an event or game.	E.g. Sprinter, Football, Netball
Flexibility	The range of motion possible at a joint to allow improvements in technique.	E.g. Gymnastics, Badminton
Body Composition	the relative ratio of fat mass to fat-free mass in the body allowing variation in body composition dependent on the sport.	
Power	The product of speed and strength to allow for explosive movements in sport	E.g. Sprinting, Boxing

A2: Fitness Tests:	
Cooper 12-Minute Run	Maximal running test of aerobic fitness, in which participants try and cover as much distance as they can in 12 minutes
Sit-Up Test	Measures muscular endurance of the abdominals and hip-flexor muscles. How many sit-ups can you do in 1 minute
Grip Dynamometer Test	Measurement of hand and forearm muscular strength.
Sit and Reach Test	A test to measure flexibility (Lower back and hamstring flexibility)
Sergeant Jump Test/Vertical Jump Test	A test to measure power (in the legs) – It is a standing jump as high as you can go
30 Meter Sprint Test	A test to measure speed – How fast you can run 30 meters in.

A2: Methods of Training

Continuous Training	Any type of physical *training* that involves activity without rest intervals. *Continuous training* can be performed at low, moderate, or high exercise intensities – Should last at least 30 minute
Fartlek Training	Periods of fast running intermixed with periods of slower running
Interval Training	Physical training consisting of alternating periods of high- and low-intensity activity.
Circuit Training	A type of sports training that involves sets of different exercises done in order one after the other
Core Stability Training	Training to improve the capacity of the muscles of the torso to assist in the maintenance of good posture, balance, etc., especially during movement.
Free Weights	A *weight*, such as a barbell or dumbbell, that is not attached to another structural device and is raised and lowered by use of the hands, arms or legs
Resistance Training	Resistance training is any exercise that causes the muscles to contract against an external resistance with the expectation of increases in strength, tone, mass, and/or endurance
Static Stretching	Where you hold a stretch for an extended period of time.
Dynamic Stretching	Dynamic stretching is a form of active movement that isn't about holding a stretch but rather taking your body through ranges of motion that will better prepare you for your workout or sporting activity.
Proprioceptive Neuromuscular Facilitation (PNF)	A method of stretching muscles to maximize their flexibility that is often performed with a partner or trainer and that involves a series of contractions and relaxations with enforced stretching during the relaxation phase
Plyometrics	A form of exercise that involves rapid and repeated stretching and contracting of the muscles, designed to increase strength.
CrossFit	A high-intensity fitness programme incorporating elements from several sports and types of exercise.
Anaerobic Hill Sprints	Anaerobic strength-training exercise designed to improve muscle strength and efficiency and reduce the risk of injury
Sprint Training	Sprint training is an exercise regimen that burns fat, builds muscle, and boosts BMR (Basal Metabolic Rate) – It is a series of sprints

A3 – The FITT Principles and Principles of Training	
Frequency	How many times participants will train in relation to their current fitness levels and considering progression/overload
Intensity	Appropriate measurement scale to determine how hard participants works during each activity – intensity measurement; rate of perceived exertion (RPE), Percentage of Maximum Heart Rate (Maximum Heart Rate = 220 - age);
Time	Appropriate length for the session that encourages progressive overload and which is relative to the type of training
Type	Component of fitness or method of training participants choose to work on
Specificity	Choosing a training method that develops a specific component of fitness which benefits participation in sport or activity
Progressive Overload	Increasing participant workload over a period of time to encourage fitness improvement for their sport or activity
Overtraining	Being aware of the risk of injury due to fatigue caused by increasing training workload too quickly
Reversibility	Participants not being able to train and therefore decreasing in fitness and having to restart the programme at an appropriate level and having time away from their sport or activity
Participant Differences and Needs	Choosing a component of fitness based on fitness test data and relating the chosen fitness method(s) to their sport or activity
Training Zone	Working at the correct intensity of maximum heart rate to experience fitness improvement

A4: Understanding Fitness Programmes	
Person-Centred Approach	Personal information to aid training programme design (health-screening questionnaire, activity likes and dislikes, availability to exercise)
Aims	Overall aim that meets participant's main fitness, sport or activity goal
Objectives	How the participant will achieve their main goal
Safe Design	An appropriate training method selection and activities to meet main fitness goal
Components of a Session Plan	Warm-up Main activities Cool down

B1 - Macronutrients	
Carbohydrates	Is a macronutrient that provides energy for the body – It comes in 2 forms
Simple Carbohydrates	Fast release carbohydrates that provide energy quickly for a short period of time
Complex Carbohydrates	Slow release carbohydrates that provide energy slowly and over a longer period of time
Protein	Promotes muscle growth and repairs tissue/micro-tears after sport or activity to allow further training/reduced risk of injury
Fats	A natural oily substance occurring in animal bodies
Saturated Fats	A type of fat containing a high proportion of fatty acid molecules without double bonds, considered to be less healthy in the diet than unsaturated fat
Unsaturated Fats	A type of fat containing a high proportion of fatty acid molecules with at least one double bond, considered to be healthier in the diet than saturated fat.
Calories	A measurement of energy in food and drink

B2 - Micronutrients	
Vitamin A	Function – maintains normal eyesight to assist hand-eye coordination and positional awareness Natural source – liver, mackerel and milk products
Vitamin B1	Function – converts food into energy to produce energy for exercise Natural source – rice, bran, pork, beef, peas, beans, soya beans
Vitamin C	Function – maintains an effective immune system to prevent illness so the performer can train on a regular basis Natural source – most fresh fruit and vegetables
Vitamin D	Function – to keep bones, teeth and muscles healthy Natural source – oily fish, red meat, liver, egg yolks, fortified foods
Potassium	Function – regulates fluid levels to ensure the performer is hydrated during exercise Natural source – bananas, yoghurt, sunflower seeds, potatoes
Iron	Function – increases the body's oxygen-carrying capacity to enhance aerobic performance by delivering oxygen to working muscles Natural source – liver, lean meat, eggs, kidney beans, spinach
Calcium	Function – provides increased bone strength, which reduces the risk of injury in contact activities Natural source – milk and dairy products, whole grains, green vegetables.

B3 – Hydration	
Dehydration	A harmful reduction in the amount of fluid in the body
Recommended Daily Intake	The daily intake of water – 2 litres
B4 – Improving Nutrition for Sport	
Carbohydrate Loading	The process of using carbohydrates before a competition or event to provide lasting energy stores
Bowel Emptying	Consuming foods high in fibre (whole grains) and timing of food consumption to aid digestion and empty bowel before exercise.
Legal Supplements	Legal supplements that aid an athlete in a sporting event ie vitamin B and vitamin D, protein supplements, pre-workout supplements, glucose-based isotonic drinks, caffeine drinks

C1 – The impact of Motivation on Participation in Sport		C2 – The Impact Self-Confidence can have on Participation in Sport	
Motivation	The internal mechanisms and external stimuli that arouse and direct behaviour.	**Self-confidence**	The belief that a desired behaviour can be performed.
Intrinsic Motivation	Motivation that comes from internal factors	**Positive Reinforcement**	Leaders of sport and activity can provide extrinsic motivation through positive reinforcement
Extrinsic Motivation	When external factors provide the motivation to take part in fitness activity, tangible and intangible rewards.	**Positive Environment**	Creating a positive environment so that participants feel comfortable exercising
		Similar Ability	Working with a training partner of similar ability
		Goal Setting	Setting realistic goals for the fitness session
		Self-Talk	Positive self-encouragement during the fitness session.

C3 – The Impact of Anxiety on Participation in Sport

Anxiety	The level of worry or nervousness a participant experiences.
State Anxiety	Anxiety refers to a particular situation, may arise when there is a high-pressure situation and the participant must perform
Trait Anxiety	The participant is tense and apprehensive as a character of their personality and therefore anxiety is a consistent feeling for them (the nervous system is continually activated in a number of situations).
Somatic Anxiety	Physical effects of anxiety that are brought on by state or trait anxiety - butterflies in the stomach, muscle tension, increased heart rate, increase sweat rate
Cognitive Anxiety	Psychological effects of anxiety that are brought on by state or trait anxiety – feeling worried, poor concentration levels, lack of sleep due to overthinking.
Familiarisation	Participants can choose music that lowers anxiety levels and motivates them to participate
Use of Music	Participants can choose music that lowers anxiety levels and motivates them to participate
Ability Levels	Fitness classes, outdoor activities and sports training are based on ability levels and therefore participants feel comfortable participating at the right level for them
Pre-Match Team Talk	To reassure players and reduce worry