

Physical components of fitness (FAMMBS)

Flexibility - the range of movement around a joint

Aerobic endurance - the ability for the cardiorespiratory system to work efficiently by providing the working muscles with oxygen through sustained physical activity

Muscular strength - the maximum force that can be generated by a muscle or muscle group

Muscular endurance - the ability for the muscles to contract over a prolonged period of time against a moderate to light load

Body Composition - the ratio of fat mass to fat-free mass

Speed - distance divided by time taken

Skill Related components of fitness (PCRAB)

Power - the work done in a unit of time (strength x speed)

Co-ordination - two or more body parts working efficiently at the same time

Reaction time - the time taken to respond to a stimulus

Agility - the ability to change direction at speed

Balance - the ability to maintain a stable centre of mass

Basic Principles of Training

Frequency - how **often** you train

Intensity - how **hard** you train

Time - how **long** to train for

Type - which **types of training** to use

Additional principles of training (SPARRRIV)

Specificity - training needs to be specific to the activity

Progressive Overload - gradually increase the amount of exercise by using **F.I.T.T**

Adaptation - increasing demands need to be put on the body in order for it to adapt

Reversibility - if you stop training your improvements will be reversed

Rest and recovery - you need to rest in order for the body to recover and adaptations to take place

Individual differences/needs - training should always meet the needs/targets/goals of the individual

Variation - you need to vary your programme to avoid boredom

Borg (6-20) Rating of Perceived Exertion (RPE) Scale

Gives an indication of how hard (exertion) an individual has worked straight away after exercise

$RPE \times 10 = HR \text{ (bpm)}$
e.g. if you think you have worked at 15 on the Borg scale, your HR should be 150bpm

Aerobic Training Zone

Maximum HR = $220 - \text{age}$

To improve **aerobic endurance** you must work between the lower (**60%**) and upper (**85%**) training threshold of maximum HR for the individual