Learning Aim A

Physical components of fitness (FAMMBS)

Flexibility- activities requiring a wide range of movement around a joint e.g. gymnastics & dance
Aerobic endurance – events/sports lasting longer than 30 minutes e.g. marathon, football
Muscular strength – activities requiring force e.g. throwing events & weightlifting
Muscular endurance- events/sports lasting longer than 30 minutes e.g. rugby & basketball
Body Composition – low body fat e.g. gymnastics, high muscle mass e.g. sprinters
Speed – activities requiring fast movement e.g. sprinting

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

Skill Related components of fitness (PCRAB)

Power – activities requiring explosive movement e.g. throwing & jumping

Co-ordination – any activity requiring the movement of two or more body parts e.g. hand, eyes and tennis racquet to hit the tennis ball

Reaction time – an activity where a quick decision or response to a stimulus is needed e.g. a batter reacting to the ball in rounders

Agility – activities requiring quick changes of direction e.g. dodging the opposition in rugby

Balance – any activity requiring the control of the distribution of weight or to remain upright and steady

Additional principles of training (SPARRRIV)

Specificity – training should meet the needs of the sport, or physical/skill-related fitness goals to be developed
Progressive Overload - in order to progress, training needs to be demanding enough to cause the body to adapt, improving performance
Adaptation – changes to the body due to increased training loads
Reversibility – if training stops, or the intensity of training is lowered, fitness gains from training are lost
Rest and recovery – to allow the body to recover and adapt
Individual differences/needs – training should meet the needs of an individual
Variation – altering types of training to avoid boredom and maintain motivation to train

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 x 10 = HR (bpm)
e.g. if you think you have worked at 15 on the Borg scale, your HR should be 150bpm

Training Zones

Maxiumum Heart Rate (MHR) = 220 – age

Aerobic training zone = 60-85% MHR

Anaerobic training zone = 85%+ MHR

Be able to calculate training zones e.g. a 20-year old will have an aerobic training zone of 120-170 bpm.
(220 – 20 = 200.
200 x 0.6 = 120.
200 x 0.85 = 170)