

Physical Training



- Components of fitness and importance of these in sport.
- Fitness tests; the value of this, purpose, protocols, the appropriate fitness test, and rationale for selection.
- Fitness tests for specific components.
- The use of different training methods and fitness classes for specific components of fitness (advantages and disadvantages of each)

Protocols of fitness tests:

- How do you complete the fitness test?

E.g., 12-minute cooper run:

Run/walk for 12 minutes around an area (AO1) count the number of laps around the area you complete (AO1) then calculate the distance run (AO1).

Protocols of fitness tests:

- How do you complete the fitness test?

E.g., Sit and reach test:

Take shoes off and sit down (AO1), lay feet flat against the box and lean forward (AO1), measure the distance reached by the participants hands (AO1).

Component of fitness (HEALTH)	Definition	Fitness test
Muscular Endurance	The ability of a muscle or muscle group to undergo contractions avoiding fatigue.	1 minute sit up / press-up Harvard Step test
Muscular Strength	The ability to overcome a resistance.	Hand grip dynamometer
Cardiovascular Fitness	Ability of the heart and lungs to supply oxygen to the working muscles.	12-minute Cooper run / Bleep test
Flexibility	The range of movement possible at a joint.	Sit and reach
Body Composition	The percentage of body weight that is muscle, fat or bone.	BMI

Reasons For Fitness Testing

- To identify **strengths and/or weaknesses**
- To compare your score against a **normative table of data**
- Give yourself an **incentive**
- To monitor **progress**



Component of fitness (SKILL)	Definition	Fitness test
Agility	Ability to move and change direction quickly whilst maintaining control.	Illinois Agility
Balance	Maintenance of the centre of mass over the base of support.	Standing Stork
Coordination	The ability to use two or more body parts together at the same time.	Hand wall toss
Power	The ability to undertake strength performances quickly Power = Strength x Speed	Vertical jump
Reaction time	The time taken to initiate and respond to a stimulus.	Ruler drop
Speed	The rate at which an athlete can perform a movement or cover a distance.	30m Sprint

Training Method	Description	Component of fitness improved (mostly)	Used best for...
Interval	Repeated intervals of high intensity work, followed by rest.	Cardiovascular fitness, speed	Swimming, cycling, running
Fartlek	Working at different intensities without rest periods – walk, jog, sprint. Different terrains.	Cardiovascular fitness, speed	Rugby, hockey, football
Continuous	Steady training within aerobic training zone. No rest.	Cardiovascular fitness	Running, swimming, cycling
Plyometrics	High intensity training which works on explosiveness. Jumping and bounding.	Power	Sprinting, high jump, Basketball
Weight/Resistance	Working against a resistance. Sets and reps: Endurance – low weight, high rep Strength – high weight, low rep	Muscular strength, muscular endurance	Weightlifter, boxer
Circuit	Involves working on a number of exercises arranged as stations. Alternate muscle groups.	All	Tennis, rugby, netball