

UNIT 1: Fitness for sport and exercise- Learning aim A

Components of Physical fitness (FBSAMM)

1. Aerobic Endurance	The ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.
2. Muscular Endurance	The ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance.
3. Flexibility	Having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.
4. Speed	Distance divided by the time taken. Measured in metres per second (m/s).
5. Muscular Strength	The maximum force (in kg or N) that can be generated by a muscle or muscle group
6. Body Composition	The relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body.

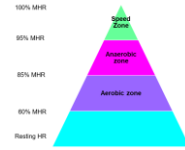
Components of Skillrelated fitness (BCRAP)

7. Balance	The ability to maintain centre of gravity.
8. Agility	Being able to move quickly and change direction without losing balance or time.
9. Co-ordination	A smooth flow of movement needed to perform a movement efficiently and accurately.
10. Power	The product of strength and speed and is expressed as the work done in a unit of time.
11. Reaction time	The time taken for a sports performer to respond to a stimulus and initiate a response.



Exercise intensity and training zones

12. Intensity	How hard you work. Measured in Heart rate
13. Training zone	A target range of heart rate percentage to work in.
14. Training threshold	The minimum heart rate value a person has to work in to be in a training zone.
15. Maximum heart rate	220- age= Max Heart rate
16. Aerobic training zone	60-85% of maximum heart rate
17. Anaerobic training zone	85% -100% of maximum heart rate
18. Borg Scale/Rating of perceived exertion (RPE)	Scale of intensity ranges based on how hard the performer thinks they are working. (6-20). You multiply the level by 10 to get target BPM.



7	very, very light
8	
9	very light
10	
11	fairly light
12	
13	somewhat hard
14	
15	hard
16	
17	very hard
18	
19	very, very hard
20	

Basic principles of training (FITT)

19. Frequency	Number of training sessions (How often you train)
20. Intensity	How hard you train
21. Time	How long you train
22. Type	How you train. Training types used to be specific

Additional principles of training (RVPARIS)

23. Specificity	Making training specific to activity or goals to ensure appropriate fitness gains.
24. Progressive Overload	When an athlete gradually keeps working harder than they have before so that fitness improves.
25. Individual differences	Making sure training is designed to meet personal needs.
26. Adaptation	When the body changes to cope with extra load. Happens in the rest and recovery periods.
27. Reversibility	When adaptations reverse due to lack of training or training intensity being too low.
28. Variation	Including variety in training regime to prevent boredom.
29. Rest & Recovery	These are required so that the body can recover from the training and to allow adaptation to occur.