## KG 1

# Physical Components of fitness

## Acronym: F S B A M M

| | | Component | Definition |
|---|---|---|---|
| 1. |  | 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. |
| 2. |  | Speed | Distance divided by the time taken. Speed is measured in metres per second (m/s).<br>3 types of speed: **Accelerative** – Sprints up to 30 m; **Pure** – Sprints up to 60 m; **Endurance** – Sprints with a short recovery in-between |
| 3. |  | Body composition | The relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body. |
| 4. |  | Aerobic endurance | The ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity<br>Components of the Cardiorespiratory System: 1. Heart 2. Blood 3. Blood vessels 4. Lungs 5. Airways<br>Functions of the Cardiorespiratory System: 1. Breathe in oxygen from the air 2. Transport oxygen and nutrients 3. Remove waste products |
| 5. |  | 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 load. |
| 6. |  | Muscular strength | The maximum force (in kg or N) that can be generated by a muscle or muscle group. |

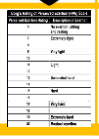
## KG 2

# Skill Related Components of fitness

## Acronym: B C R A P

| | | Component | Definition |
|---|---|---|---|
| 7. |  | Balance | The ability to maintain centre of mass over a base of support<br>Static balance – Athlete remains still<br>Dynamic balance – Athlete is moving |
| 8. |  | Coordination | The smooth flow of movement needed to perform a motor task efficiently and accurately. |
| 9. |  | Reaction time | The time taken for a sports performer to respond to a stimulus and the initiation of their response. |
| 10. |  | Agility | The ability of a sports performer to quickly and precisely move or change direction without losing balance or time |
| 11. |  | Power | The product of strength and speed |

## KG 3 — Exercise Intensity

| | | Measure of Intensity | Description |
|---|---|---|---|
| 12. |   | HR Max (Maximum heart rate) | HR Max = 220-age<br>Measured in bpm (beats per minute) |
| 13. |  | Aerobic Training zone | 60%-85% of HR Max |
| 14. |  | Borg Rating of Perceived Exertion (RPE) Scale | Scale is from 6-20<br>Used as an estimate of intensity<br>RPE x 10 = estimated heart-rate |

## KG 4 — Principles of Training

### Acronym: F I T T

| | | Principle | Description |
|---|---|---|---|
| 15. |  | Frequency | How **often** you train |
| 16. |  | Intensity | How **hard** you train |
| 17. |  | Time | How **long** you train for |
| 18. |  | Type | **How** you train (method of training) |

## KG 5 — Additional Principles of Training

### Acronym: V I P R A R S

| | | Principle | Description |
|---|---|---|---|
| 19. |  | Variation | It is important to vary the training regime to avoid boredom and maintain enjoyment |
| 20. |  | Individual needs | The programme should be designed to meet individual training goals and needs. |
| 21. |  | Progressive overload | In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance. |
| 22. |  | Rest & recovery | Rest and recovery are required so that the body can recover from the training and to allow adaptation to occur |
| 23. |  | Adaptations | How the body reacts to training loads by increasing its ability to cope with those loads. This occurs during recovery after a training session. |
| 24. |  | Reversibility | If training stops, or the intensity of training is not sufficient to cause adaptation, training effects are reversed. |
| 25. |  | Specificity | Training should be specific to the individual's sport, activity or physical/skill-related fitness goals to be developed. |