












Physical Components of fitness

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.		GYMNAST PERFORMING THE SPLITS
2.		SPEED	Distance divided by the time taken. Speed is measured in metres per second (m/s).		RUNNING 100M IN 9.67S
3.	3 TYPES OF SPEED		Accelerative	Sprints up to 30 m	HIGH JUMP RUN UP
			Pure	Sprints up to 60 m	HOCKEY WINGER
			Endurance	Sprints with a short recovery in-between	FOOTBALLER
4.		BODY COMPOSITION	The relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body.		LONG DISTANCE RUNNERS NEED LOW BODY FAT
5.		AEROBIC ENDURANCE	The ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity		MARATHON RUNNER
6.	COMPONENTS OF THE CARDIORESPIROTY SYSTEM		1. HEART 2. BLOOD 3. BLOOD VESSELS 4. LUNGS 5. AIRWAYS		
7.	FUNCTIONS OF THE CARDIORESPIROTY SYSTEM		1. Breathe in oxygen from the air 2. Transport oxygen and nutrients 3. Remove waste products		
8.		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.		A LONG-DISTANCE CYCLIST
9.		MUSCULAR STRENGTH	The maximum force (in kg or N) that can be generated by a muscle or muscle group.		WEIGHTLIFTER

Skill Related Components of Fitness

10.		BALANCE	The ability to maintain centre of mass over a base of support		
11.	2 TYPES OF BALANCE		Static	Athlete remains still	HEADSTAND
			Dynamic	Athlete is moving	CARTWHEEL
12.		COORDINATION	The smooth flow of movement needed to perform a motor task efficiently and accurately.		A TENNIS SERVE
13.		REACTION TIME	The time taken for a sports performer to respond to a stimulus and the initiation of their response.		A SPRINTER RESPONDING TO THE STARTING GUN
14.		AGILITY	The ability of a sports performer to quickly and precisely move or change direction without losing balance or time.		A RUGBY PLAYER DODGING DEFENDERS
15.		POWER	The product of strength and speed		A BOXER PERFORMING A JAB



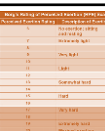
Physical C.O.F Acronym

F	S	B	A	M	M
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Skill C.O.F Acronym

B	C	R	A	P
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Exercise Intensity

16.		MAXIMUM HEART RATE	Used as a measure of exercise intensity Calculation: $220 - \text{Age}$ Measured in bpm (Beats Per Minute)		
17.		TRAINING ZONES	Training Zone	% of MHR	
			Aerobic	60%-85%	Long distance runner
			Anaerobic	85%-95%	100m Sprinter
18.		BORG RPE SCALE	Scale is from 6-20 Used as an estimate of intensity $\text{RPE} \times 10 = \text{Estimated Heart-rate}$		RPE Score = 14 Estimated HR = 140 bpm







Principles of Training

19.		FREQUENCY	HOW OFTEN YOU TRAIN	3 DAYS PER WEEK
20.		INTENSITY	HOW HARD YOU TRAIN	75% OF MAX HR
21.		TIME	HOW LONG YOU TRAIN FOR	35-MINUTE RUN
22.		TYPE	HOW YOU TRAIN	INTERVAL TRAINING






Additional Principles of Training

23.		VARIATION	It is important to vary the training regime to avoid boredom and maintain enjoyment	Running in different locations
24.		INDIVIDUAL NEEDS	The programme should be designed to meet individual training goals and needs.	Time, money, lifestyle, injury
25.		PROGRESSIVE OVERLOAD	In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance.	F.I.T.T.
26.		REST & RECOVERY	Rest and recovery are required so that the body can recover from the training and to allow adaptation to occur	Time between sets Having rest days
27.		ADAPTATIONS	In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance.	Muscle hypertrophy Muscle atrophy
28.		REVERSIBILITY	If training stops, or the intensity of training is not sufficient to cause adaptation, training effects are reversed.	Fitness levels decreasing when injured
29.		SPECIFICITY	Training should be specific to the individual's sport, activity or physical/skill-related fitness goals to be developed.	Marathon runner using continuous training

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Skill C.O.F Acronym

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