

# Paper 1: Health and components of fitness

## Health and fitness:

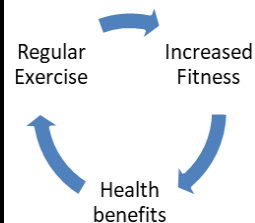
**Fitness definition:** 'The ability to meet the demands of the environment'

**Explanation:** Are you fit enough to do your everyday tasks in your everyday life. e.g. the fitness needed to be a window cleaner to that of an office worker



**Health:** 'A state of complete emotional, physical and social wellbeing and not merely the absence of disease or infirmity'

**Explanation:** Not only are you free from disease and infirmity you are socially active, physically fit and have no emotional problems such as stress

## The relationship between health and fitness:



- Exercise improves fitness, an increase in fitness will improve performance
- Exercise improves all aspects of health (physical, social, emotional)
- If you are not healthy enough to take part in regular exercise your fitness will deteriorate causing your performance to drop. Health benefits will not be gained

Cardiovascular fitness	Muscular Endurance	Flexibility	Reaction Time	Power	Speed	Agility	Balance	Coordination	Strength
'The ability of the heart and lungs to supply oxygen to the working muscles'	'The ability of a muscle group to undergo repeated contractions, avoiding fatigue'	'The range of movement possible at a joint'	'The time taken to respond to a stimulus'	'Is the ability to do strength performances quickly' Power = Strength x Speed	'The amount of time it takes to perform a particular action or cover a particular distance'	'Is the ability to change position of the body quickly while maintaining control of the movement'	'Is the ability to retain the body's centre of mass above the base of support' static or dynamic	'Is the ability to use two or more body parts together smoothly and efficiently'	'The ability to overcome a resistance. it requires a force to be applied to a muscle or muscle group'
Explanation	Explanation	Explanation	Explanation	Explanation	Explanation	Explanation	Explanation	Explanation	Explanation
They need good cardiovascular fitness to be able to maintain a high standard of performance throughout the race/match.	They need a prolonged additional oxygen delivery to the working muscles to repeat muscle contractions over a long period of time without tiring	Performers need good flexibility to be able to get into position without getting injured and to perform complex movements	Performers need to react to a stimulus. A stimulus can include: a ball, whistle, starters gun, or an opponent	Performers need power to improve performance. Speed and strength are needed in sports where you throw jump kick and sprint	Performers need speed to get from one position to another. This may be leg speed to run or arm speed when throwing or hitting	Performers need agility to change direction quickly. This can be used to evade opponents or move around the court or pitch quickly	Performers need balance so they don't fall over. E.g. in gymnastics when performing a balance (static) or travelling across the beam (dynamic)	Performers need coordination when they are using two body parts at the same time. It can be used when aiming, or striking/hitting a ball	Performers need Strength to support weight (static) lifting a weight (maximal) punch (dynamic) throw (explosive)
Sports	Sports	Sports	Sports	Sports	Sports	Sports	Sports	Sports	Sports
Games players Long distance runners/rowers	Cyclist (legs) Boxing (punching) Swimmer (arms/legs)	Gymnasts Goal keepers Divers	Sprinters Badminton players Rugby players	Shot put Football (kicking) High jump	Sprinting Badminton Javelin thrower	Rugby side-step Tennis Badminton	Gymnastics Skiing Hammer throw	Tennis Archery Football	Weight lifting Rugby Gymnastics
									
Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test	Fitness Test
Multi stage fitness test	Sit-up bleep test	Sit and reach	Ruler drop test	Vertical jump	30m sprint	Illinois agility run	Stork balance test	Wall toss	Grip dynamometer 1 rep max test