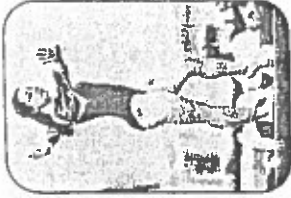


Balance

The ability to maintain equilibrium with your centre of mass over the base of support

Balance is important in many sports and is linked to agility as it is needed when changing direction and speed. Balance is especially important in gymnastics.



Dynamic Balance
This type of balance occurs when on the move

A football player dodging opponents

Static Balance
This type of balance occurs when stationary

Gymnastics balance beam

Agility

The ability to be able to change direction and speed quickly and efficiently

Agility is required by many sports, such as team and contact sports where being able to quickly change direction and speed is vital in order to dodge opponents. It is also required in individual sports such as badminton.



Examples of sports and positions that require agility:



The Components of Skill-related Fitness

There are five components of physical fitness

These components are often more important for the technical (skillful) demands of sport.

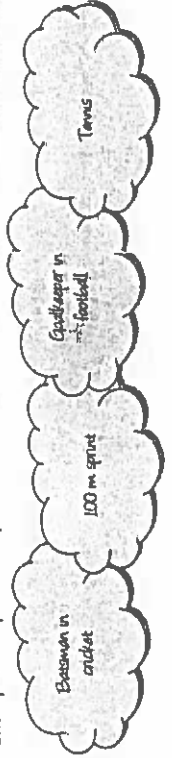
Different sports require different skills and even different positions in the same sport require different skill components. For example, a winger in football will need to have speed and agility, while a goalkeeper would be more reliant on reaction time.

Reaction time

The time taken to respond to a stimulus and initiate a response

Reaction time is especially important in externally paced sports that require an athlete to initiate an appropriate response to a stimulus as quickly as possible.

Examples of sports and positions that require reaction time:



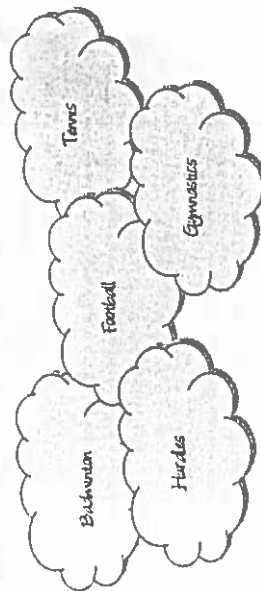
Coordination

The ability to perform smooth and efficient movements

Coordination is important in all sport, whether it be the hand-eye coordination needed in tennis, or the whole-body coordination needed in the gymnastics pommel horse.



Examples of sports that require coordination:



Power

The product of both speed and strength

Power is a skill-related component of fitness that is the product of two physical components of fitness: time and speed. Power is very important in many contact sports where it is used to barge through opponents, but also in many individual sports, such as sprinting, where it is required to drive the sprinter forward.

Power is expressed as the work done in a unit of time, such as kilogram-metres per second (kgm/s), and is calculated using the following equation:

$$\text{Power (kgm/s)} = \text{Force (kg)} \times \text{Distance (m)} / \text{Time (s)}$$

Examples of sports that require power:

