

# **Skill Related Fitness**

# Coordination

# Definition

- **Coordination** is the ability to control movements smoothly and fluently.



# Coordination

- To perform in a coordinated way, groups of muscles work in a specific sequence to create effective movements

E.g. you need strong arm and shoulder muscles to throw a javelin. However you require co-ordination so that the strength is used at the correct stage of the throw.



# Effects on Performance

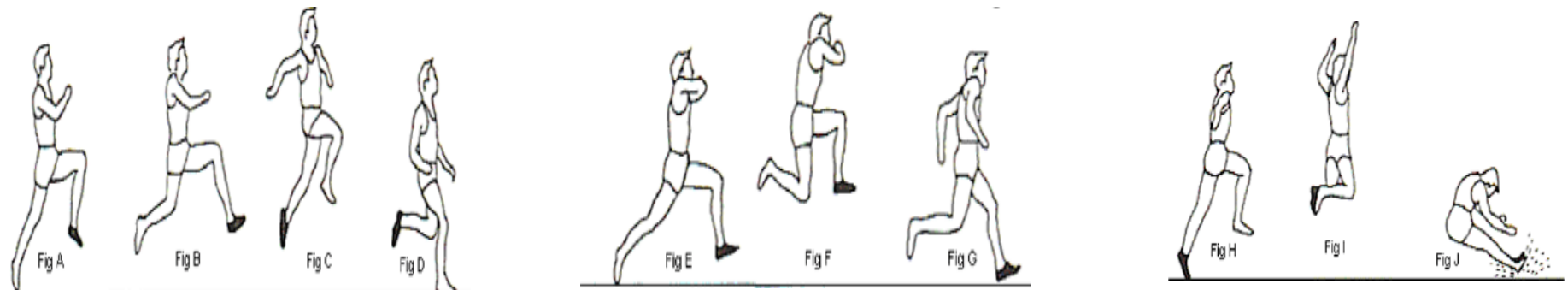
- As your coordination improves you are able to move your joints and muscles in the correct order.



This leads to improvements in your hand and eye co-ordination, for example when catching a ball.

# Effect on Fluency and Rhythm in Performance

- Improved coordination also improves control and fluency.
- I.e. Triple Jump



# Effect on Fluency and Rhythm in Performance

- Coordinated movements in the triple jump enable speed to be carried through to the final jump phase.
- Effective coordination should ensure that there is no jerkiness when performing a triple jump and the movement will be more effective.

***Agility***



# Definition

- **Agility** is the ability to move **quickly** and **precisely** while remaining in control.



# Effects of Agility On Performance

- Improved agility will help you react quickly in ways which are often unexpected



- e.g. if a footballer disguises the direction they are going to shoot (this increases the need for the goalkeeper to be more agile).

# Effects of Agility On Performance

- In most activities it is an advantage to be agile;

e.g. when avoiding being tackled in rugby, dribbling at speed in hockey or reaching for a low net shot in badminton.



An agile badminton player stretching to return a shot in badminton.

**Balance**

# Definition

- Balance is the ability to retain the centre of gravity over your base of support.



# Types of Balance

- Balancing requires the control of the different groups of muscles. The exact muscle requirements depends on the nature of the task.
- Some activities require **static** balances and some activities require **dynamic** balances

# Static Balances

- Static balances require you to hold a balance



a gymnast performing a headstand

# Effect of Static Balance on Performance

- As your static balance improves you are more likely to show good control of your strength and body weight.
- e.g. in the headstand you move from using large body parts to using fine body movements which help your stability.



# Dynamic Balances

- Dynamic (moving) balances require you to maintain balance under constantly changing conditions.



A skier showing good use of dynamic balance

# Effect of Balance on Performance

- As your dynamic balance improves you are more likely to show control in demanding situations.
- e.g. when skiing you can constantly adjust your dynamic balance as you travel over changing terrain in order to remain balanced.

**Reaction Time**

# Definition

- Reaction time is the time taken between the recognition of a signal and the start of the movement



# Situations Where Reaction Time is Important

- If you are playing as a guard in basketball you might need to respond quickly.



- A fast reaction time when marking the attacker, and quick court movements, would assist in effective performance. This would help when the attacker decides to pass, dribble or shoot.

# Situations Where Reaction Time is Important

- An athlete needs good reaction time to get a good start at the beginning of a race.

'Bang'



Reacting to a 'cue'



Sprinter reacting to a gun

# Effect of Reaction Time on Performance

- As your reaction time improves you are likely to think and respond more quickly. This should lead to fewer errors in movement and more time to make decisions.



e.g. in a line out in rugby union, practice between the thrower and jumper should ensure you are able to secure possession.

- This will be more difficult to achieve when the opposing team have the throw in, as you will have less time to respond.

# The Body Skill Related Fitness Questions

## Coordination

In your Standard Grade course which skills in different team and individual activities require coordination?

Team

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

Skill 3 \_\_\_\_\_

Individual

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

Skill 3 \_\_\_\_\_

Skilful movements require coordination.

Complete the following sentence by choosing two words from the list below.

link

power

space

order

Coordination is the ability to \_\_\_\_\_ movements in the correct \_\_\_\_\_.



# The Body Skill Related Fitness Questions

Choose two activities from your Standard Grade Course and explain the possible performance benefits of having improved coordination?

Activity 1 \_\_\_\_\_

Benefit on Performance

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Activity 2 \_\_\_\_\_

Benefit on Performance

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# The Body Skill Related Fitness Questions

## Agility

Q1. Complete the following sentence by choosing two words from the list below.

precisely      quickly      slowly      agile

Agility is the ability to move \_\_\_\_\_ and \_\_\_\_\_

In your Standard Grade course, which skills in different team and individual activities require agility?

Team

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

Individual

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

# The Body Skill Related Fitness Questions

Choose two activities from your Standard Grade Course and explain the possible performance benefits of having improved agility?

Static

Activity 1 \_\_\_\_\_

Benefit on Performance

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Dynamic

Activity 2 \_\_\_\_\_

Benefit on Performance

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# The Body Skill Related Fitness Questions

## Balance

Q1. Complete the following sentence by choosing two words from the list below?

centre

base

middle

top

Balance is the ability to retain the \_\_\_\_\_ or gravity over your \_\_\_\_\_ of support.

# The Body Skill Related Fitness Questions

Which of the following statements about balance are true and which are false?

Tick **one** box each time.

It is easier to balance if:

True

False

- your base of support is wide
- your centre of gravity is high
- you move into your balance quickly
- your centre of gravity is over your base

# The Body Skill Related Fitness Questions

Choose an individual activity and a skill/technique where balance is important to your performance.

Individual activity \_\_\_\_\_

Skill/Technique \_\_\_\_\_

Describe what you did to stay balanced when performing this skill.

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# The Body Skill Related Fitness Questions

## Balance

Name two activities which require static balances

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Name two activities which require dynamic balances

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# The Body Skill Related Fitness Questions

Choose two activities from your Standard Grade Course and explain the possible performance benefits of having static and dynamic balances?

Activity 1 \_\_\_\_\_

Benefit on Performance

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Activity 2 \_\_\_\_\_

Benefit on Performance

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# The Body Skill Related Fitness Questions

## Reaction Time

Complete the following sentence?

Recognition      Start      Signal      Movement

Reaction time is the time taken between the \_\_\_\_\_ of a  
\_\_\_\_\_ and the \_\_\_\_\_ of the \_\_\_\_\_.

In your Standard Grade course, which skills in different team  
and individual activities require a fast reaction time?

Individual

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

Team

Skill 1 \_\_\_\_\_

Skill 2 \_\_\_\_\_

# The Body Skill Related Fitness Questions

Choose two activities from your Standard Grade Course and explain the possible performance benefits of having improved reaction time?

Activity 1 \_\_\_\_\_

Benefit on Performance

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Activity 2 \_\_\_\_\_

Benefit on Performance

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