

KS4 Physical Education



# KS4 Physical Education

# **Skill Related Fitness**



These icons indicate that teacher's notes or useful web addresses are available in the Notes Page.

This icon indicates that the slide contains activities created in Flash. These activities are not editable.

For more detailed instructions, see the Getting Started presentation.

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### **Learning objectives**



#### What we will learn in this presentation:

The definitions of:

- agility
- balance
- coordination
- opwer
- reaction time
- and speed.

How and why these elements of skill related fitness are important to different sports.





# Agility



Agility is the ability of the performer to change the position of their body quickly, whilst keeping their entire body under control.

Agility is especially important in sports like fencing and squash that require quick and precise movements.







#### **Balance**



**Balance** is the ability of the performer to retain their centre of mass over their base of support. Balance can be:

static – for example, standing on one leg

dynamic – for example, keeping your balance on a bike as it goes round a corner.



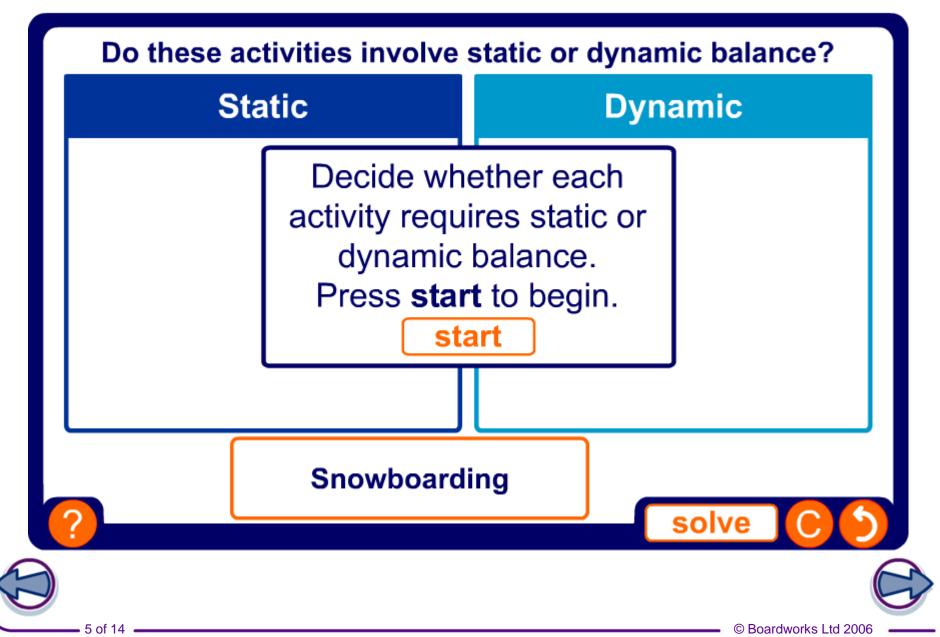


What type of balance does a surfer need?









# Coordination

(board works)

**Coordination** is the ability of the performer to move two or more body parts accurately and smoothly in response to stimuli from the senses.

Coordination allows you to produce complex actions from a number of smaller movements.

For example, an effective tennis stroke requires coordinating footwork and arm action.





#### **Power**



**Power** is a combination of strength and speed – it is the ability to do strength performances quickly.

power = strength × speed

Power is important in explosive events like throwing and sprinting.

Power is vital to getting a good start in short races.







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## **Reaction time**

board

Reaction time is the amount of time it takes for a performer to initiate movement after the presentation of a stimulus.

For example, how quickly a table tennis player reacts to a wide serve from their opponent.

The faster they react, the better their chance of making the return.



A stimulus could be anything from a starting gun to a sudden side-step by an opponent, or a shout from a teammate.



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### Speed



**Speed** is the rate at which a performer is able to perform a movement or cover a set distance.

It could be how fast a badminton player can move their racket to cover a drop shot, or how fast an athlete can run 1,500 m.

**Rugby** 



Speed is very important in many sports – it can often be the thing that separates a good performer from a great performer.

How important is speed in the following activities?

Dancing

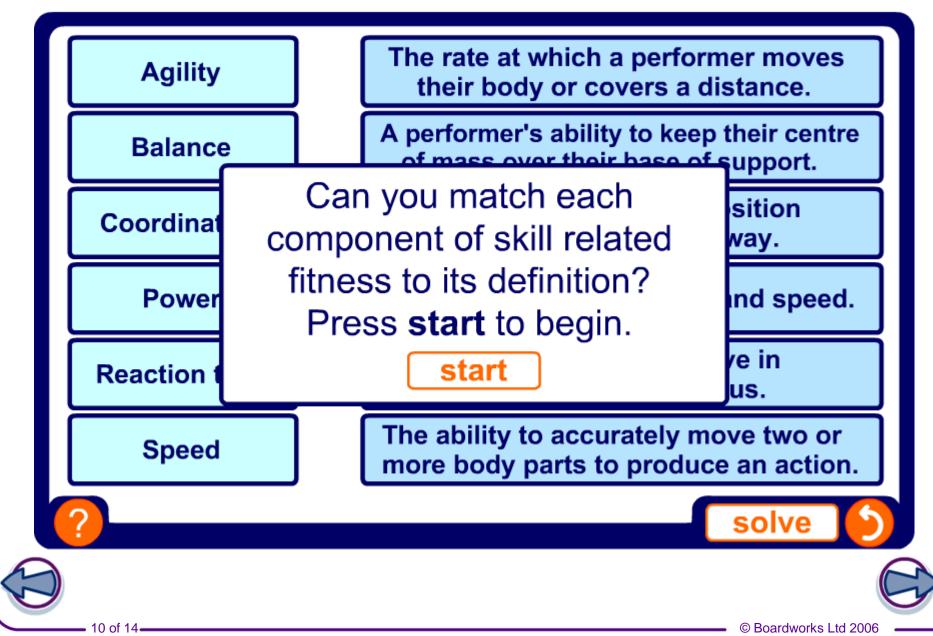


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Lawn bowls







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Consider the sports that you are offering for your GCSE. Identify examples of when you might require:

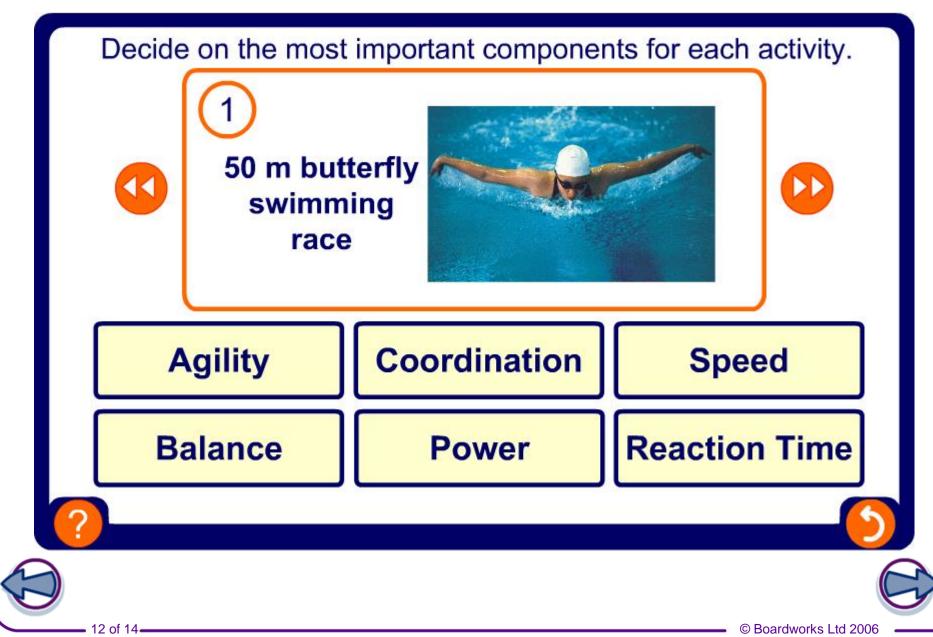
Agility Balance Coordination Power Reaction Time Speed





## **Skill related fitness in specific sports**





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# Complete this table on skill related fitness by dragging the correct label into each gap.

Component of fitness	Example activity	How performance is improved		
	Gymnastics	Hold static balances for longer. Less likely to fall while performing dynamic movements.		
	Athletics	Respond more quickly to		
Power	Coordination	Reaction time	Balance	
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- 1. Explain briefly how **power** and **balance** are important to:
  - a) a rugby union player
  - b) a weightlifter.
- 2. Explain briefly how **coordination** and **speed** are important to:
  - a) a triple jumper
  - b) a cross-country skier.
- 3. Identify three sports where **reaction time** is important to performance and explain what might happen if a performer's reaction time was too slow.
- 4. What is meant by the term 'agility'?

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