



Revision Series 2024

# OCR GCSE Physical Education Paper 1

◆ Notes pages ◆



The EverLearner

## How to use this revision session and notes

- Complete this document when doing the live or on-demand revision shows.
- The imagery contained in the notes is designed for you to be able to study the A01 knowledge prior to the live session.
- During the live session, James will guide you through how to use that knowledge in your exam.
- Focus on the skills that James is presenting as much as the content. In most cases, students have a knowledge of the topic but struggle to respond to the command in the question. This is a focus of our revision.
- Complete the notes pages as extensively as possible and, if necessary, return to the show to complete it more than once in order to make the fullest notes possible.
- Have the National Mock Exam to hand and, ideally, your completed, marked version of it.
- Have the [exam infographics](#) to hand. These will be referred to throughout the show.

### My ticklist:

- Notes pages
- Exam infographics
- Exam paper
- Exam mark scheme
- Exam model answers

## During the live show, we will cover...

Topic 1: Types of movement at hinge joints and ball-and-socket joints.....	3
Topic 2: The roles of muscle in movement.....	5
Topic 3: Lever systems.....	6
Topic 4: Planes of movement and axes of rotation.....	7
Topic 5: Structure and function of the respiratory system.....	9
Topic 6: Short-term effects of exercise.....	10
Topic 7: Long-term (training) effects of exercise.....	12
Topic 8: Components of fitness.....	14
Topic 9: Principles of training.....	17
Topic 10: Prevention of injury (including hazards).....	18

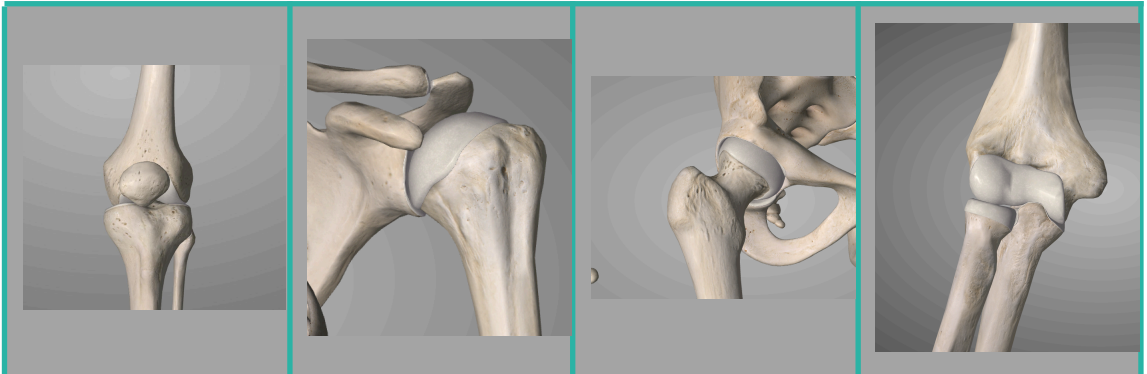
We will also cover a wide array of exam skills including command terms for A01, A02 and A03 as well as the extended writing requirements of the paper.

You may also find it useful to study our previous years' revision shows when different samples of content and skills have been developed.

# Topic 1: Types of movement at hinge joints and ball-and-socket joints

Fill out the table defining each type of movement:

Type of movement	Definition
Flexion	<hr/> <hr/> <hr/>
Extension	<hr/> <hr/> <hr/>
Abduction	<hr/> <hr/> <hr/>
Adduction	<hr/> <hr/> <hr/>
Circumduction	<hr/> <hr/> <hr/>
Rotation	<hr/> <hr/> <hr/>



Joint	Knee	Shoulder	Hip	Elbow
Type of joint (hinge or ball-and-socket)	_____	_____	_____	_____
Movements possible at this joint	_____	_____	_____	_____



Want to know more?

Watch the FREE tutorials "Joint movements" and "Movement patterns" on [TheEverLearner.com](https://www.theeverlearner.com)

# Topic 2: The roles of muscle in movement

Complete the following sentences:

The \_\_\_\_\_ is the muscle that produces movement. It is also referred to as the \_\_\_\_\_ .

The antagonist is the muscle that \_\_\_\_\_ when the \_\_\_\_\_ is contracting.

The \_\_\_\_\_ helps to stabilise the joint to prevent unnecessary \_\_\_\_\_.  
For example, the \_\_\_\_\_ is the fixator during a biceps curl.

## Antagonistic muscle pairs

Fill out the table to identify the agonist/antagonist for each movement. Give a sporting example for each.


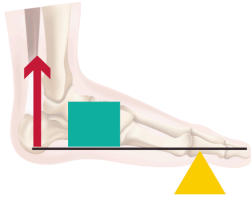
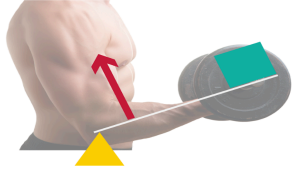
Movement	Agonist	Antagonist	Sporting example
Flexion at the knee	_____	_____	_____ _____
Extension at the knee	_____	_____	_____ _____
Flexion at the elbow	_____	_____	_____ _____
Extension at the elbow	_____	_____	_____ _____



Want to know more?

Watch the FREE tutorials "Antagonistic pairs" and "Roles of muscle" on [TheEverLearner.com](https://www.theeverlearner.com)

# Topic 3: Lever systems

			
Class of lever	_____	_____	_____
Description of lever structure	_____ _____	_____ _____	_____ _____
Description of sporting example	_____ _____	_____ _____	_____ _____

## Mechanical advantage

Mechanical advantage = \_\_\_\_\_

**Effort arm:** Distance from effort to the fulcrum

**Load arm:** Distance from the load to the fulcrum

Mechanical advantage occurs when

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

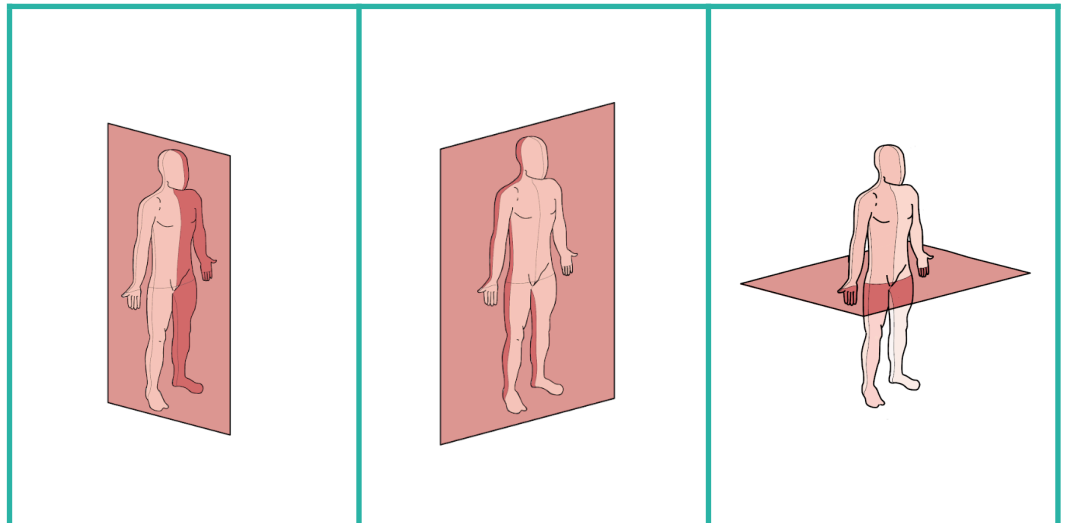
Therefore, a \_\_\_\_\_ class lever has the greatest mechanical advantage.



Want to know more?


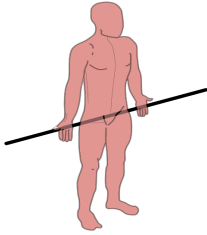
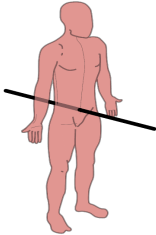
Watch the tutorials "Levers" and "Mechanical advantage and disadvantage" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 4: Planes of movement and axes of rotation



Plane	Sagittal	Frontal	Transverse
Description	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>
Sporting example(s)	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>



			
Axis	Longitudinal	Transverse	Frontal
Description	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>
Sporting example(s)	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/>

Complete the following statements:

Movement on the sagittal plane occurs on the \_\_\_\_\_ axis.

Movement on the \_\_\_\_\_ plane occurs on the frontal axis.

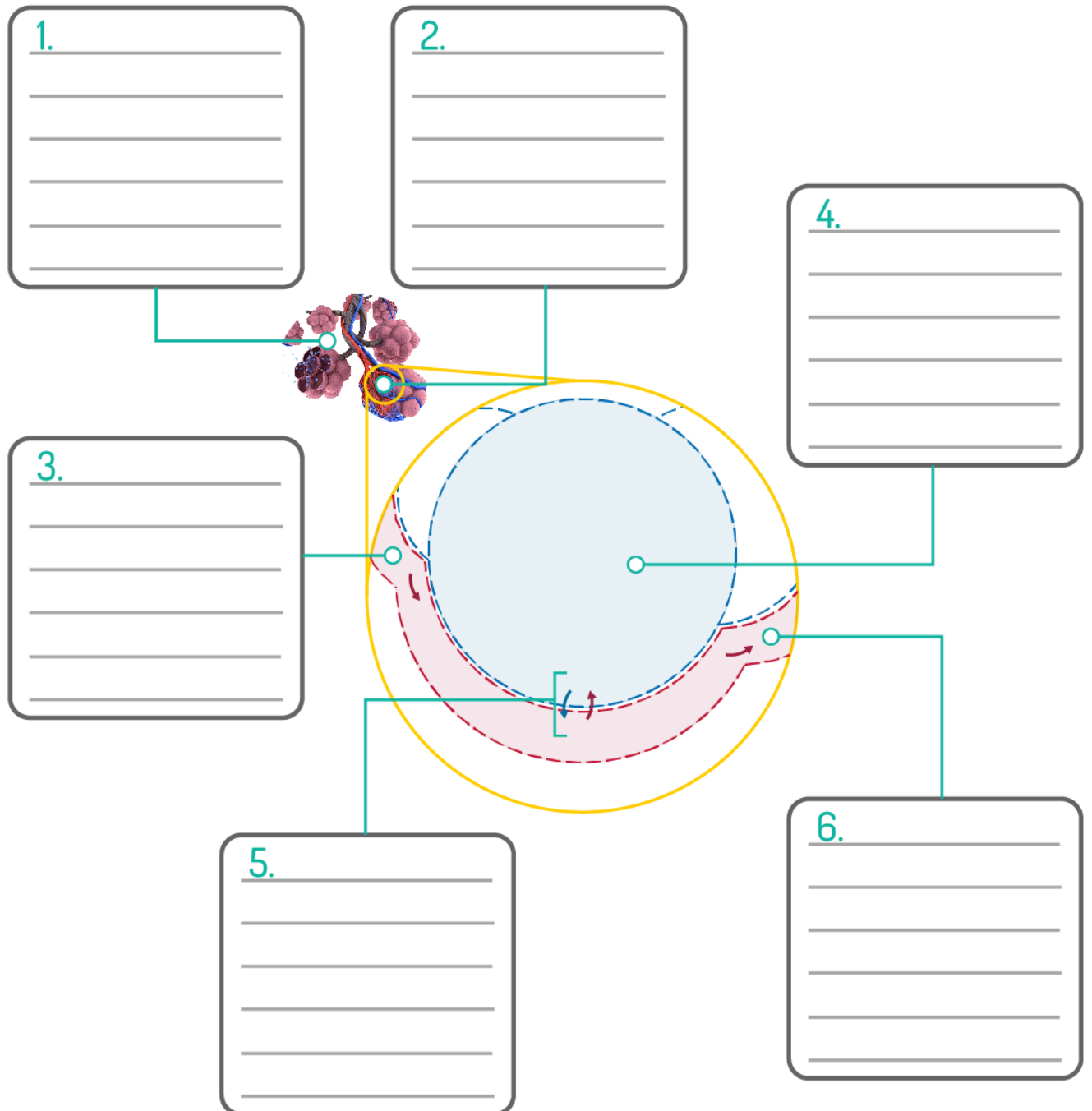
Movement on the transverse plane occurs on the \_\_\_\_\_ axis.



Want to know more?

Watch the tutorial "Planes and axes" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

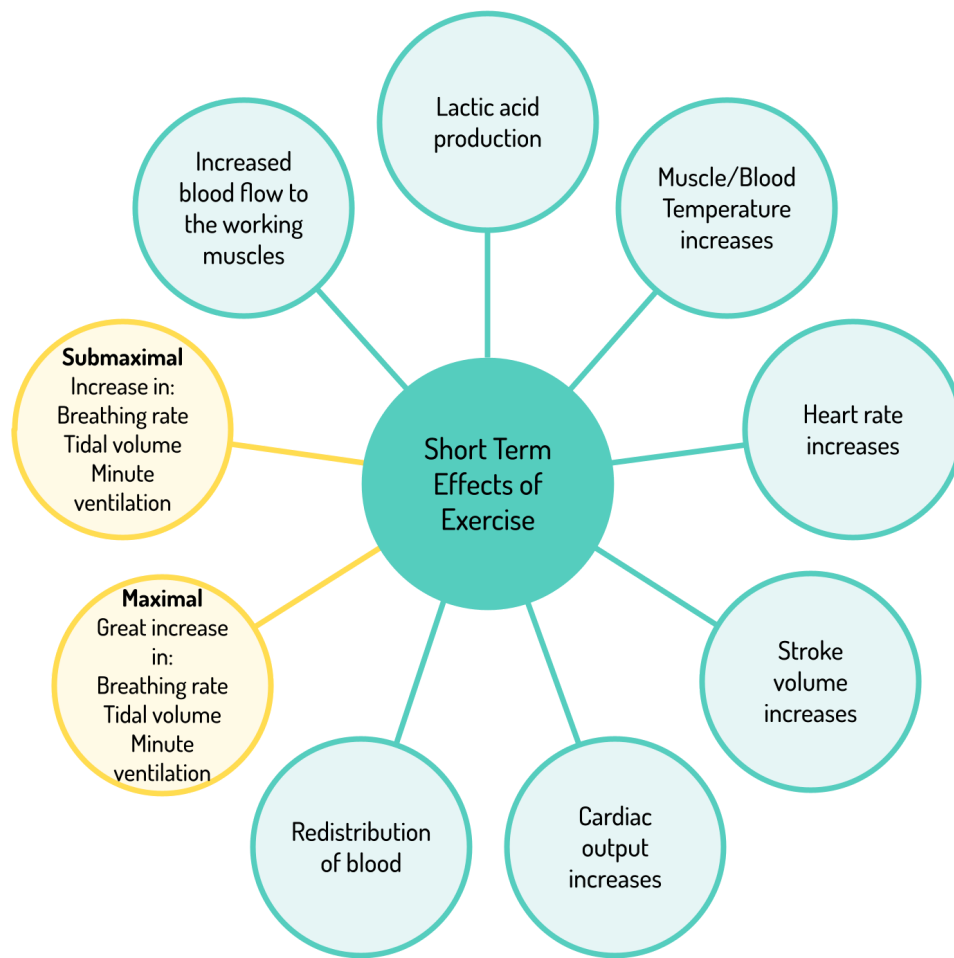
# Topic 5: Structure and function of the respiratory system



Want to know more?

Watch the tutorial "Pathway of air and exchange of gases" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 6: Short-term effects of exercise



Short-term effect	Explanation of effect
Muscle temperature increases	<hr/> <hr/>
Heart rate increases	<hr/> <hr/>
Stroke volume increases	<hr/> <hr/>
Cardiac output increases	<hr/> <hr/>

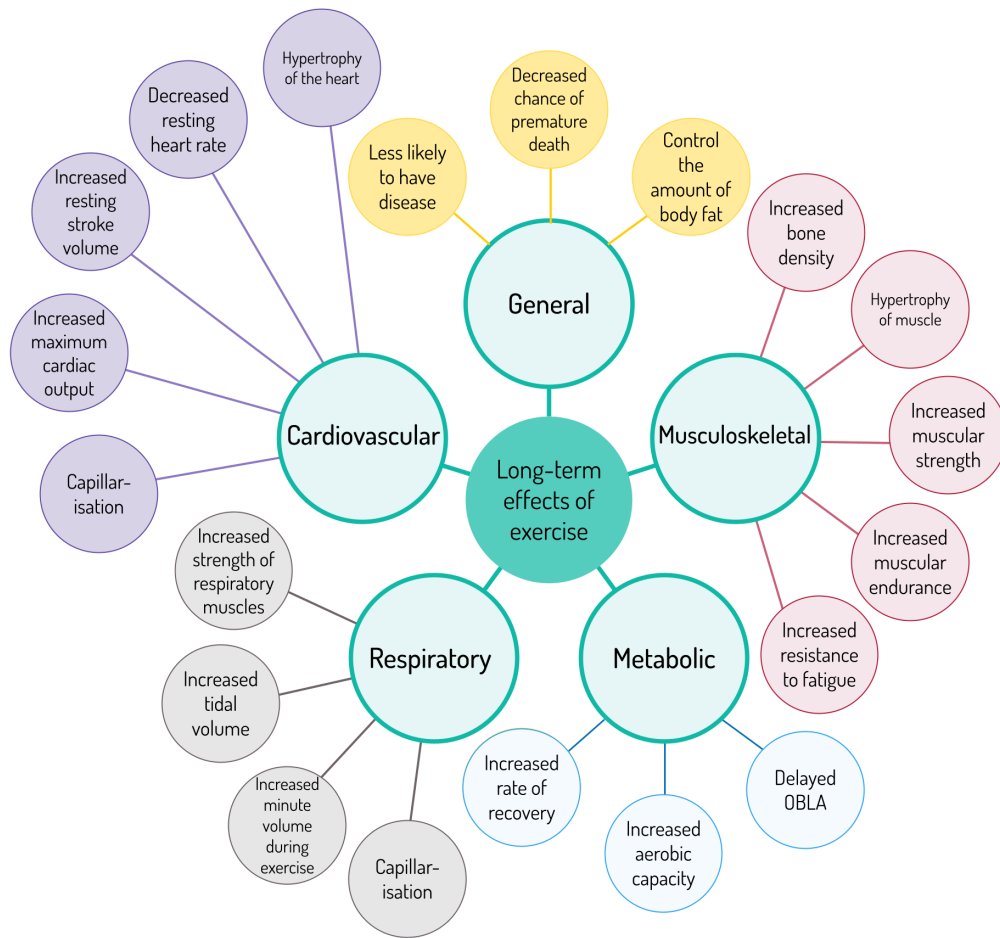
Short-term effect	Explanation of effect
Redistribution of blood flow	<hr/> <hr/>
Maximal exercise impact	<hr/> <hr/>
Submaximal exercise impact	<hr/> <hr/>



Want to know more?

Watch the tutorial "Short-term effects of exercise" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 7: Long-term (training) effects of exercise



Describe three long-term effects of exercise on the CV system:

Long-term effect of exercise on the cardiovascular system	Description
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>

Describe three long-term effects of exercise on the musculoskeletal system:

Long-term effect of exercise on the musculoskeletal system	Description
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>

Describe three long-term effects of exercise on the respiratory system:

Long-term effect of exercise on the respiratory system	Description
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>



Want to know more?

Watch the tutorial "Long-term effects of exercise" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 8: Components of fitness

## From definitions to examples

You must be prepared to provide specific examples of the importance of components of fitness to different activities. Complete this table with the EIO model of examples James describes in the session.

Component	Definition (A01)	Performer 1 (A02)	Performer 2 (A02)	Your level of confidence with this component
		Laura/Josh/Julie/ Tom/Kate	Laura/Josh/Julie/ Tom/Kate	
Agility	How quickly you can change direction under control without losing speed, balance or power.	(Julie) Ability to dodge an opponent in netball to get free and receive a pass.		😊 😐 😞
Balance	Keeping centre of mass over base of support.			😊 😐 😞
Cardiovascular endurance/ Stamina	Ability to continuously exercise without tiring.			😊 😐 😞
Coordination	Ability to repeat a pattern or sequence with fluency and accuracy.		(Laura) Ability to perform a split leap with a wide RoM at the hip.	😊 😐 😞
Flexibility	Range of movement around a joint.			😊 😐 😞
Muscular endurance/ Dynamic strength	Ability of the muscles to repeatedly contract without rest.			😊 😐 😞

Component	Definition (A01)	Performer 1 (A02)	Performer 2 (A02)	Your level of confidence with this component
		Laura/Josh/Julie/ Tom/Kate	Laura/Josh/Julie/ Tom/Kate	
Power/Explosive strength/ Anaerobic power	Combination of strength and speed.			😊 😐 😞
Reaction time	Time taken to take a decision to move.			😊 😐 😞
Strength	Ability of a muscle to exert force for a short period of time.			😊 😐 😞
Speed	Ability to move the body quickly.			😊 😐 😞

## From examples to impact

Try completing answers to this question over and over again:

Justify the importance of ..... (insert component of fitness here) to a ..... (insert performer/activity here)

For example:

- “Justify the importance of speed to a marathon runner.”
- “Justify the importance of flexibility to a hockey goalkeeper.”



You can use the performer profiles provided to get you started or use your own examples.

	CoF		Performer/Activity	Answer (A03)
Justify the importance of	maximal strength	to	sprinting (Josh).	“Maximal strength causes large amounts of force to be applied to the block to cause an explosive start. It also allows the sprinter to apply more force to the ground when striding, which propels the sprinter forward faster. Finally, maximal strength in the arms and shoulders allows the sprinter to pump their arms causing greater forward motion.”
Justify the importance of		to		
Justify the importance of		to		
Justify the importance of		to		
Justify the importance of		to		



Want to know more?

Watch the tutorial “Components of fitness” on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

## Topic 9: Principles of training

A volleyball player wants to improve their leg power for jumping to block at the net and their muscular strength in their arms for spiking the ball powerfully. Fill out the table to explain how you would apply the principles of training to help them improve.

Principle	How the principle can be applied
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>




Want to know more?

Watch the tutorial "Principles of training" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 10: Prevention of injury (including hazards)

How injury risk can be reduced	Example(s)
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>

Sport setting where injury could occur	Example(s) with possible injury that could occur
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>
<hr/> <hr/>	<hr/> <hr/>



**Want to know more?** Watch the tutorial "Prevention of injury 2" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).