

Revision Series 2024

# WJEC GCSE Physical Education

◆ 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: Components of fitness.....	3
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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: Components of fitness

Component	Definition
Agility	Ability to change _____ and _____ the body at _____.
Balance	Being able to keep the body _____ whilst at _____ or when _____.
CV endurance	Ability of the _____ and _____ to provide the working muscles with _____ blood for a prolonged period of time.
Coordination	The ability to use _____ or _____ body parts _____.
Flexibility	RoM at a _____.
Muscular endurance	Exercising muscles repeat _____ edly without getting _____.
Power	Being able to contract the _____ with both _____ and _____ in _____ single act./Ability to undertake _____ performances _____.
Reaction time	The time between presentation of a _____ and the _____ of the _____.

Component	Definition
Speed	The _____ at which an individual can perform a _____ or cover a _____.
Strength	Fitness that allows you to _____ heavy _____.
Body composition	_____ of body weight that is _____, muscle or _____.

The heptathlon is made up of 7 events and will be hotly contested in the Paris Olympics this summer. Laurn Davey is a Welsh heptathlete hoping to make it big in Paris. Below is an example of 6 of the events that she will be competing in.

Complete the table below with the components of fitness and their justifications.

### Shot-put

Event phase	Most important component of fitness required	Justify choice
Throw	Strength	Strength is important because the athlete needs to _____ _____ This will lead to them _____ _____
The rotational technique	Coordination	During the rotation at the start of the throw, the athlete needs to make sure that they coordinate their _____ _____ in order to _____ _____ Without this _____ _____

\*Sentence starters could change

## 800m

Event phase	Most important component of fitness required	Justify choice
The end of the race	Cardiovascular fitness	<hr/> <hr/> <hr/> <hr/>
The shot-gun start	_____	<hr/> <hr/> <hr/> <hr/>

## High jump

Event phase	Most important component of fitness required	Justify choice
Clearing the bar	_____	To be as light as possible in order to clear the bar. Excess weight or fat will require more effort to jump the same height.

## 100m hurdles

Event phase	Most important component of fitness required	Justify choice
Hurdle action	_____	<hr/> <hr/> <hr/> <hr/>

Event phase	Most important component of fitness required	Justify choice
Landing after the hurdle		<hr/> <hr/> <hr/> <hr/>

### Long jump

Event phase	Most important component of fitness required	Justify choice
Take-off		<hr/> <hr/> <hr/> <hr/>
Shape in the air		<hr/> <hr/> <hr/> <hr/>

### Javelin

Event phase	Most important component of fitness required	Justify choice
Run-up		<hr/> <hr/> <hr/> <hr/>

Event phase	Most important component of fitness required	Justify choice
Throw		<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>



Want to know more? Watch the FREE tutorials "Components of fitness" on [TheEverLearner.com](https://www.theeverlearner.com)



# Topic 2: Measuring health and fitness

Components of Fitness - Flexibility	
Definition	The range of motion of your joints
Examples	Hockey goalkeeper shows a wide range of movement in the shoulder <b>by hyperextending to save a slow-moving ball that has already looped over their head and is going into the net.</b>
Sit and Reach test	Remove shoes
	Sit on floor with legs straight out
	Soles of feet on the box
	Reach forward with one hand on top of the other
	Stretch as far as possible
	Hold for two seconds
	No jerking movements
	Distance reached is measured in cm


Components of Fitness - Strength	
Definition	Ability of a muscle to exert force for a short period of time
Examples	Weightlifter begins to raise a world record weight off the ground <b>by applying maximal muscular force to the bar with the upper and lower body.</b>
Grip strength dynamometer test	Hold in dominant hand
	Start with your hand up
	Bring down to side/Squeeze the handle/Lower arm
	No swinging your hand
	Repeat three times
	Record the maximum force reading

Components of Fitness - CV endurance	
Definition	Ability of the heart and lungs to supply oxygen to the working muscles
Examples	Triathlete efficiently delivers oxygen to the gastrocnemius when running <b>in order to work at higher intensities aerobically and prevent OBLA.</b>
Cooper 12-minute run/walk	Run for 12 minutes around a designated course
	Place cones 50m apart
	Measure the distance you cover and calculate your $\dot{V}O_2$ max
	Compare results against normative data
Multi-stage fitness test	Measure out a 20-metre track
	Use a multi-stage fitness recording
	Keep in time with the bleeps
	Wait for the bleep before turning
	Bleeps get closer together
	Test ends after two missed bleeps
	Result is the last level and shuttle they reach

Components of Fitness - Changing direction quickly whilst maintaining control	
Definition	How quickly you can change direction under control without losing speed, balance or power
Examples	Netball player dodging left and right to find space to receive the ball.
Illinois Agility test	Mark out the course to the exact measurements required
	Start lying face-down on the start line (prone position)
	Run the course as quickly as you can
	How fast you complete the course is recorded
	Measured in seconds

Components of Fitness - Speed	
Definition	Maximum rate at which an individual is able to perform a movement or cover a distance in a period of time
Examples	Table tennis player moves rapidly to their left to reach a hard-hit loop shot before the ball passes their paddle and wins the point for the opponent.
30m Sprint Test	Select a sprinting area 60-80ms long
	Measure a 30m distance
	Rolling start/Accelerate before the start
	Run as fast as you can/Run through the line
	Time is recorded

Sport / Activity	Identify the most appropriate fitness test for each sport/activity (select different ones for each sport)	Explain your choice
	_____	_____ _____ _____ _____
	_____	_____ _____ _____ _____
	_____	_____ _____ _____ _____

Sport / Activity	Identify the most appropriate fitness test for each sport/activity (select different ones for each sport)	Explain your choice
	<hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>

Explain your reasons why the following athletes should change from the suggested fitness test:

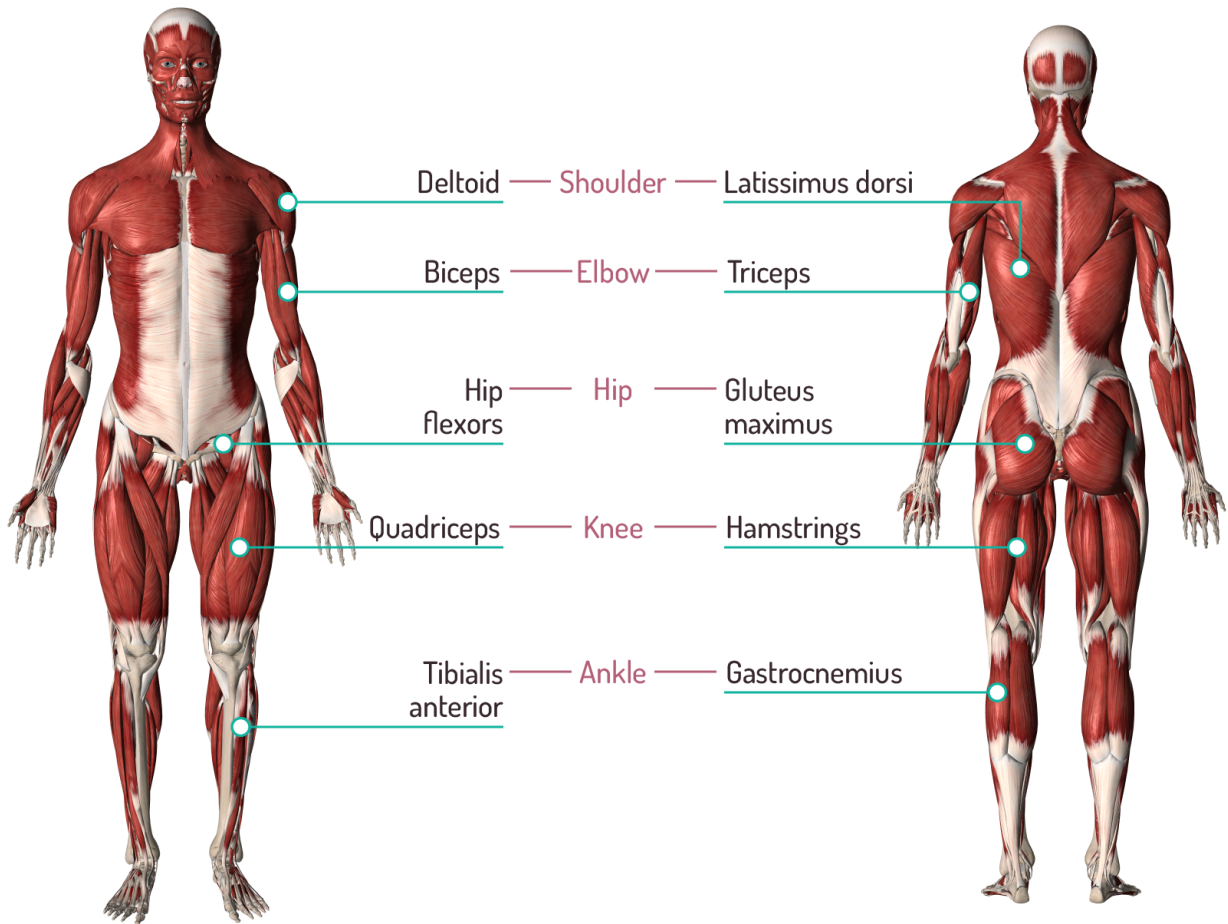
Sport / Activity	Suggested fitness test	Alternative suggestion	Justify your choice
100 m sprinter	12 min Cooper run	<hr/>	<hr/> <hr/> <hr/> <hr/>
Triathlon	Sit-and-reach	<hr/>	<hr/> <hr/> <hr/> <hr/>
Football	Hand-grip	<hr/>	<hr/> <hr/> <hr/> <hr/>






Want to know more?

Watch the tutorials "Fitness testing 1", "Fitness testing 2" and "Fitness testing 3" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only)

# Topic 3: Links of major muscles to types of movement at different joints



Movement	Movement at the joint	Agonist	Antagonist
	Flexion at the knee	_____	_____
	Flexion at the hip	_____	_____

Movement	Movement at the joint	Agonist	Antagonist
	Flexion at the elbow	_____	_____
	Extension at the knee	_____	_____
	Extension at the elbow	_____	_____
	Plantar flexion	_____	_____
	Flexion at the right hip	_____	_____
	Dorsiflexion (right ankle)	_____	_____

EXAMINE = key word.

Examine the action of the antagonistic muscle pair at the knee and hip joints that result in the athlete achieving this shape:

		Mark 1 (movement)	Mark 2 (agonist)	Mark 3 (antagonist)
	Hip joint	_____	_____	_____
	Knee joint	_____	_____	_____

		Mark 1 (movement)	Mark 2 (agonist)	Mark 3 (antagonist)
	Elbow joint	_____	_____	_____
	Knee joint	_____	_____	_____

Examine the action of the antagonistic muscle pair at the ballerina's ankle joint that results in her achieving this shape:



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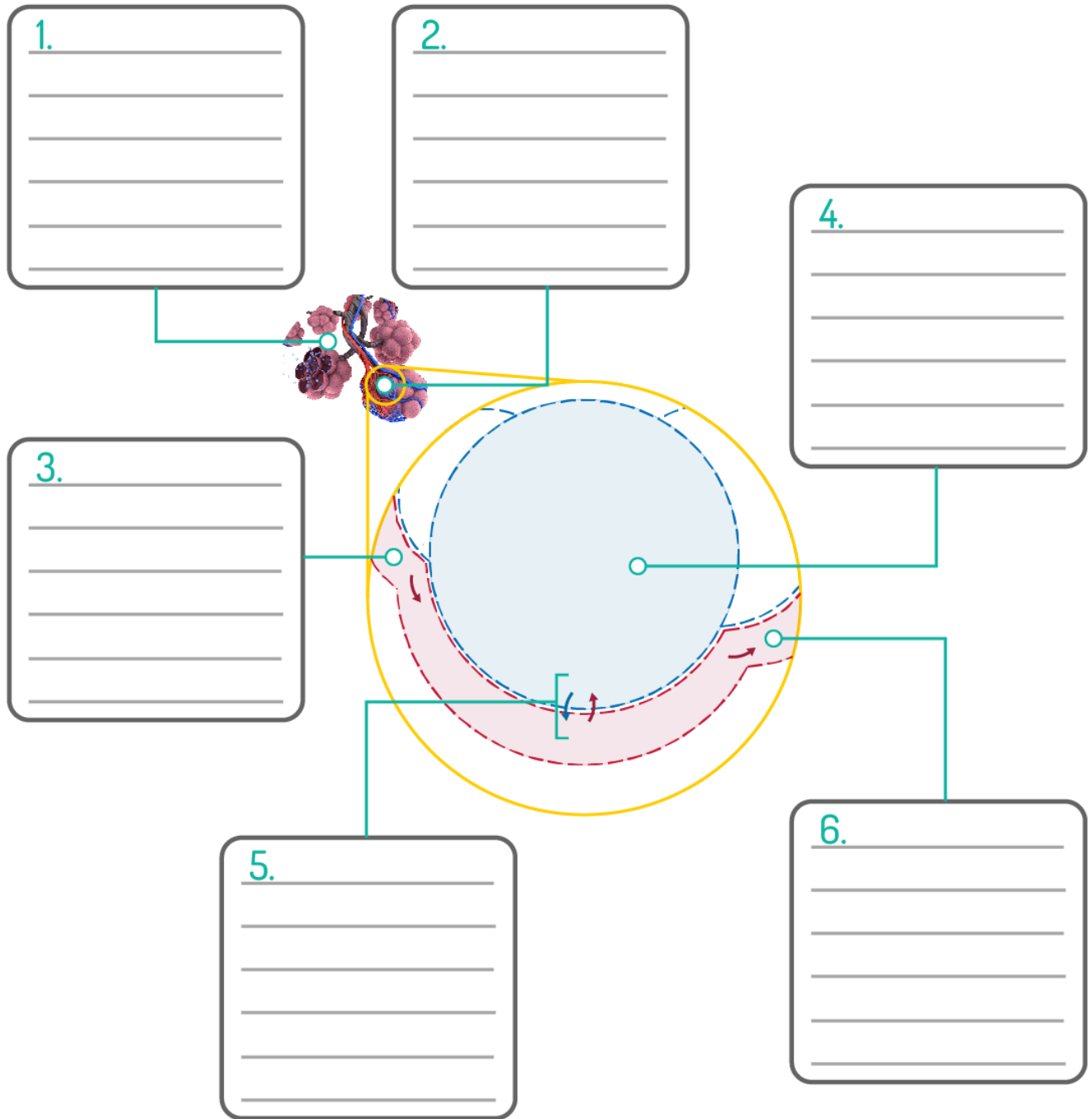
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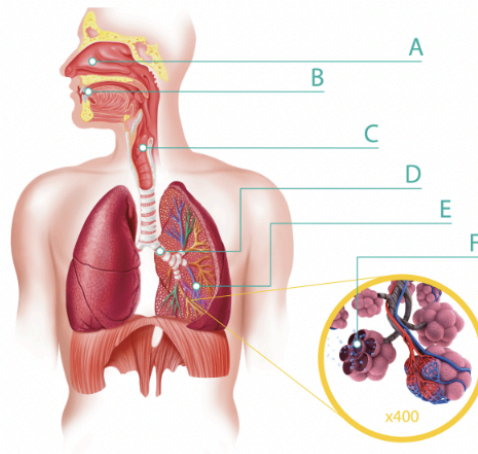
Want to know more? Watch the FREE tutorial "Antagonistic pairs" on [TheEverLearner.com](https://www.theeverlearner.com)

# Topic 4: Gaseous exchange

Annotate the “story of gaseous exchange” in the boxes.



4. Identify feature D **and** feature F of the respiratory system and explain how both contribute to exercise.



Feature D is the bronchi. The bronchi enter the left and right lungs, where the air is separated and goes into the bronchioles

Feature F is an alveolus. The alveolus is a site for gaseous exchange. Their structure allows gaseous exchange to occur efficiently.

Marks: **[6]**



Describe how the process of gaseous exchange will aid an athlete. (4)

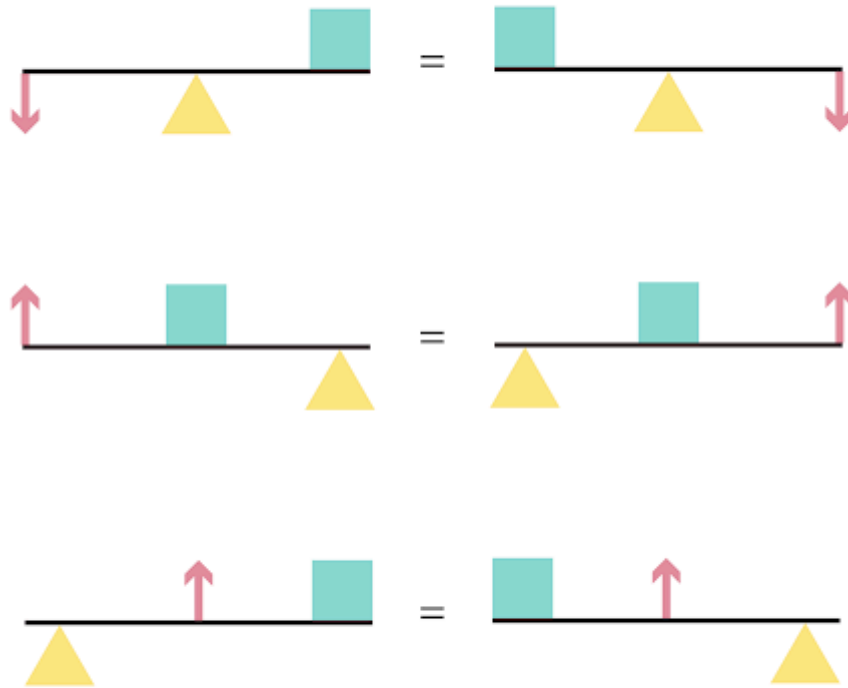
Four horizontal lines for writing the answer.



Want to know more?

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

# Topic 5: Lever systems

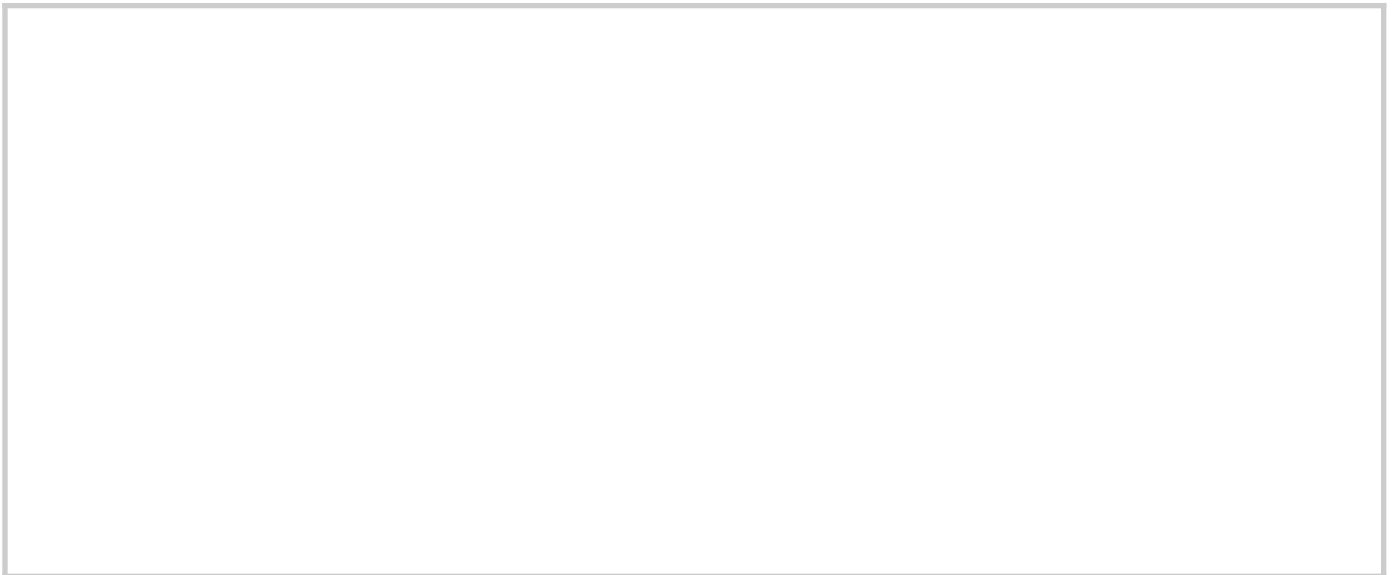


Lever component	In the human body	Shape and position
**Lever arm**	_____ _____	
Fulcrum	_____ _____	
Load	_____ _____	
Effort	_____ _____	

## First-class levers



The two images above represent a first-class lever. Using an arrow, a square, a triangle and a straight line **only**, draw a first-class lever below.



Complete this statement:

First-class levers, such as neck extension and elbow extension, have the \_\_\_\_\_  
between the \_\_\_\_\_ and the \_\_\_\_\_.

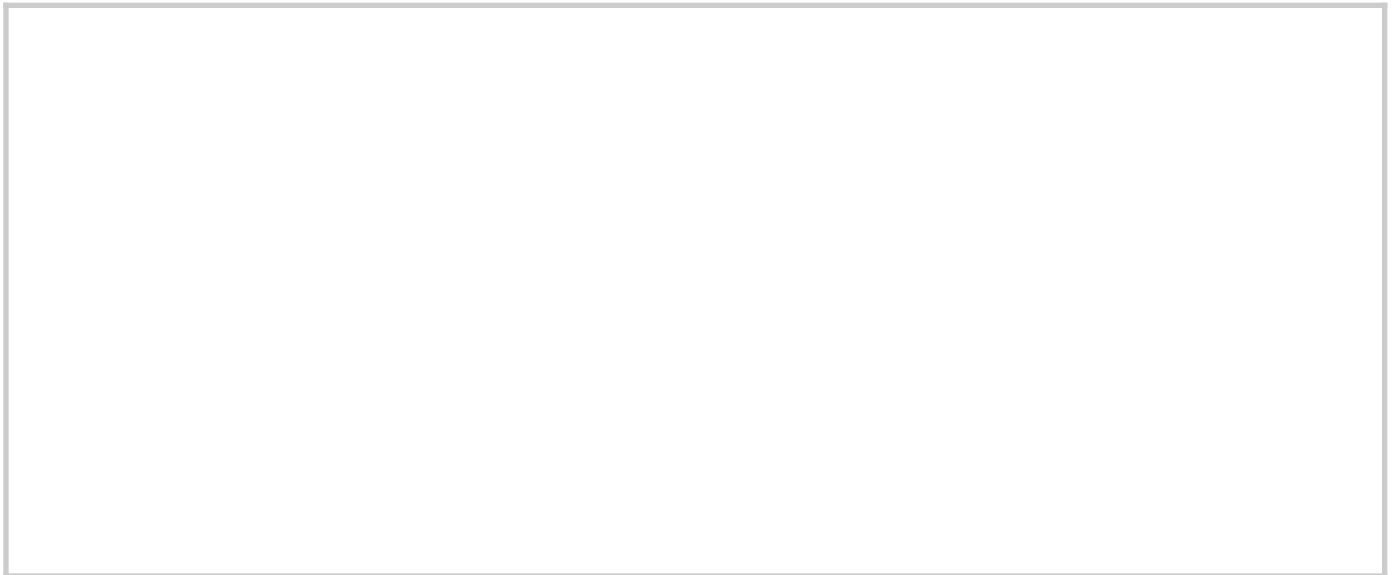
Explain why this statement is wrong: "First-class levers have the fulcrum in the middle."


Lever component	For elbow extension
**Lever arm**	
Fulcrum	
Load	
Effort	

### Second-class levers



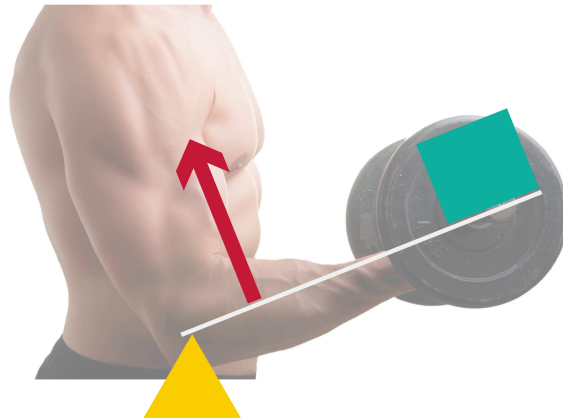
The image on the previous page represents a second-class lever. Using an arrow, a square, a triangle and a straight line **only**, draw a second-class lever below.



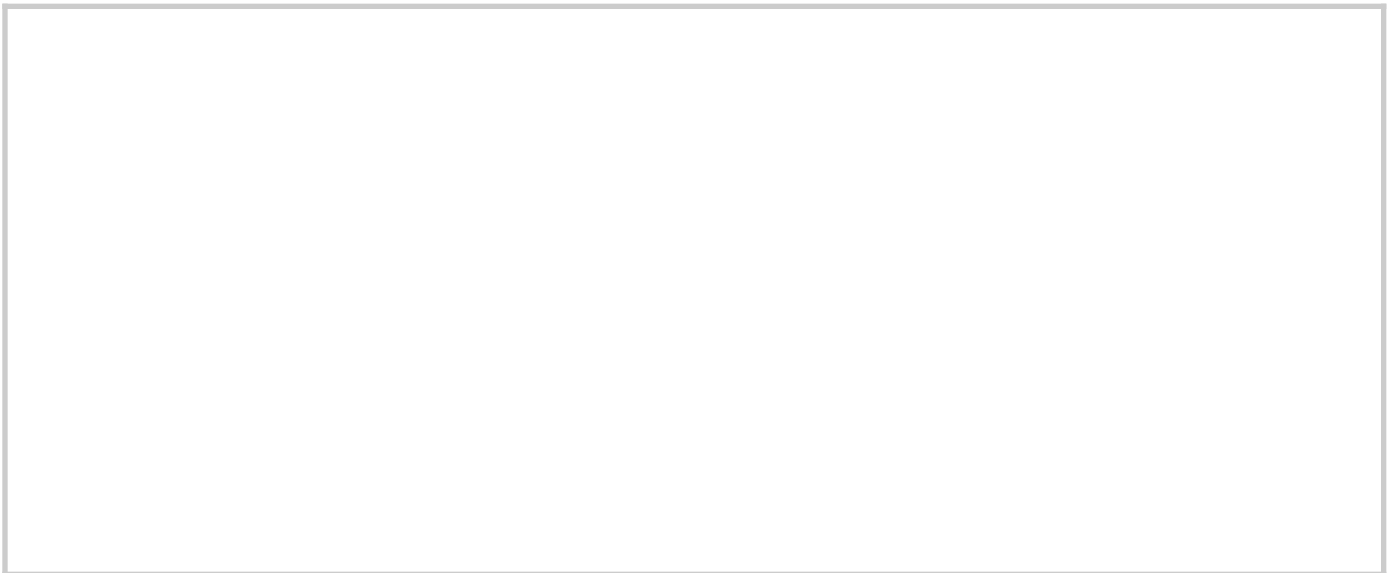
Second-class levers such as plantar flexion at the ankle have the \_\_\_\_\_ between the \_\_\_\_\_ and the \_\_\_\_\_.

Lever component	For plantar flexion
**Lever arm**	_____ _____
Fulcrum	_____ _____
Load	_____ _____
Effort	_____ _____

## Third-class levers



The image above represents a third-class lever. Using an arrow, a square, a triangle and a straight line **only**, draw a third-class lever below.



Third-class levers such as elbow flexion have the \_\_\_\_\_ between the \_\_\_\_\_ and the \_\_\_\_\_.

Lever component	For elbow flexion
**Lever arm**	_____ _____
Fulcrum	_____ _____
Load	_____ _____
Effort	_____ _____

## Mechanical advantage

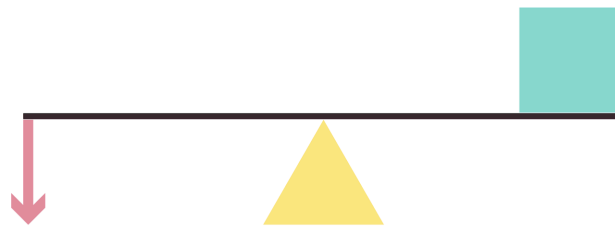


$$\text{Mechanical advantage} = \frac{\text{Effort arm}}{\text{Load arm}}$$

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

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

Accurately draw the effort and load arms on this lever:



Which one is greater, the effort or the load arm?

Effort arm

Load arm

Does this lever operate with mechanical advantage?

Yes

No

Accurately draw the effort and load arms on this lever:



Which one is greater, the effort or the load arm?

Effort arm

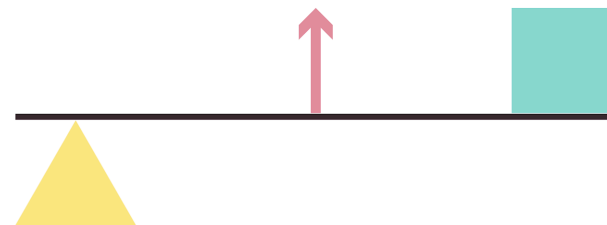
Load arm

Does this lever operate with mechanical advantage?

Yes

No

Accurately draw the effort and load arms on this lever:



Which one is greater, the effort or the load arm?

Effort arm

Load arm

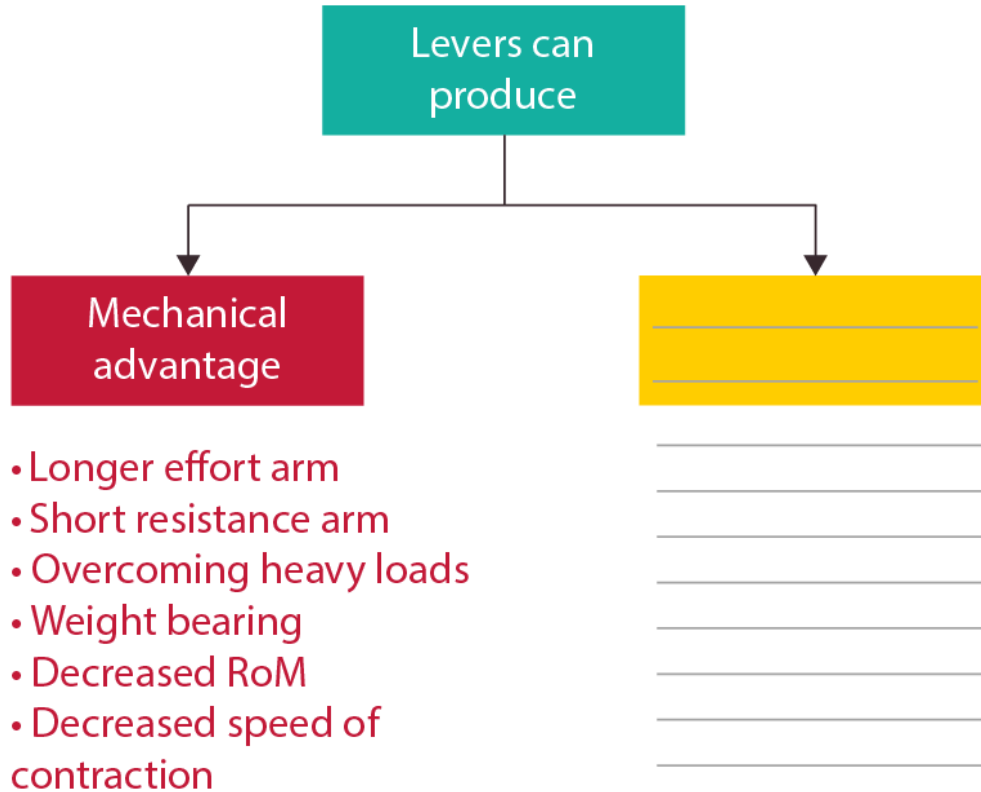
Does this lever operate with mechanical advantage?

Yes

No



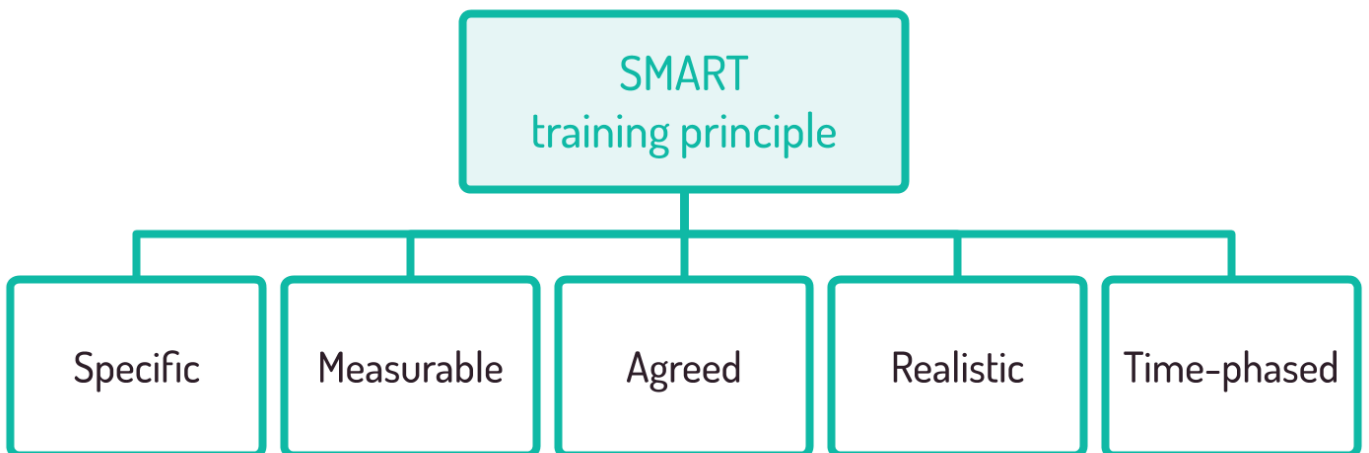
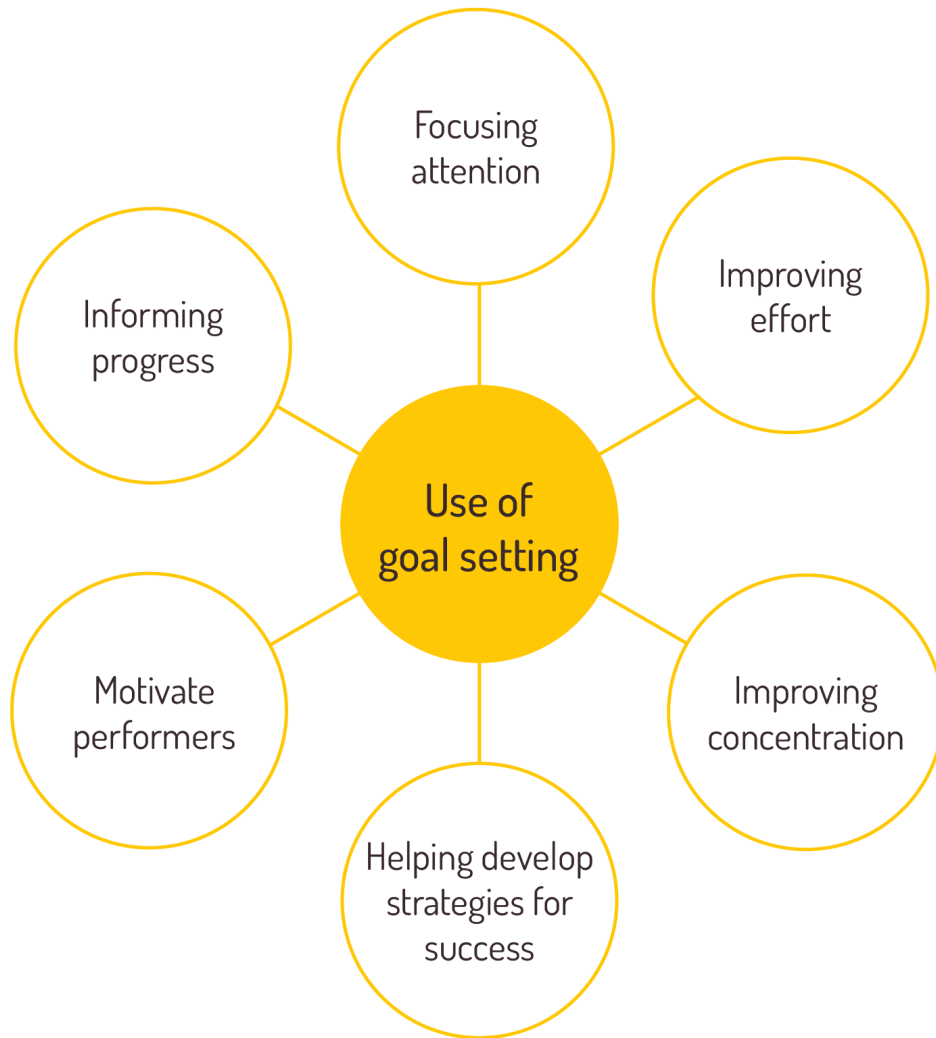
# Mechanical advantage







Want to know more?


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




# Topic 6: Goal-setting (inc. SMART)



All students are 15 years old	Multi-stage fitness test	30m sprint test	Sit-and-reach test	Press-up test
 <p>Samira</p>	L6S7 (Average)	4.4 secs (Excellent)	21cm (Excellent)	4 (Poor)
 <p>Filip</p>	L11S2 (Above average)	4.7 secs (Poor)	8cm (Average)	47 (Good)
 <p>Mills</p>	L8S9 (Average)	4.3 secs (Average)	1cm (Poor)	60 (Excellent)
 <p>Phoebe</p>	L4 S3 (Poor)	4.5 secs (Above average)	23cm (Excellent)	27 (Good)

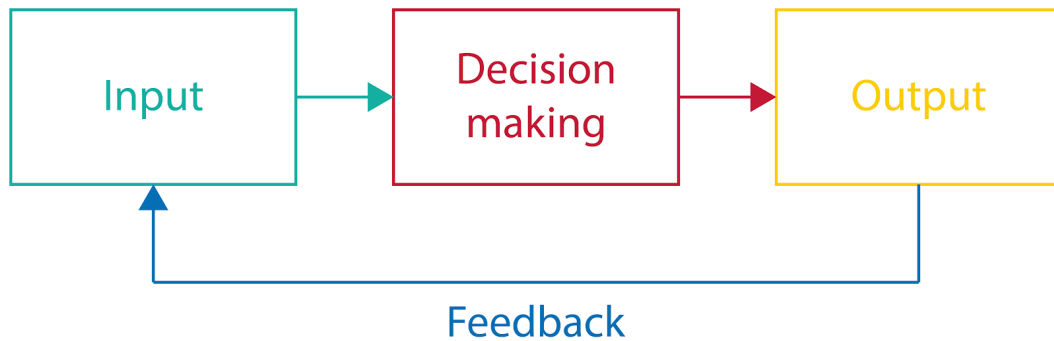
From the data in the table above, give an appropriate SMART target for each athlete and explain why it is SMART:

Athlete	Target	SMART	Explanation
 <p>Samira</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Specific Timed	<p>This target is specific, as Samira requires good cardiovascular fitness to maintain her intensity and skill level until the end of the match.</p> <p>It is timed because the target clearly states when she must achieve the target by.</p>

Athlete	Target	SMART	Explanation
 <p>Filip</p>	<p>To improve my 30m sprint test result to be recorded as average (4.3–4.4s) before the end of the next eight weeks</p>	<p>Specific Measurable</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
 <p>Mills</p>	<p>Before the start of the new season (in five weeks), I would like to improve my sit-and-reach test by 5cm.</p>	<p>Specific Realistic</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
 <p>Phoebe</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p>Specific Agreed</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Want to know more? Watch the tutorial "Goal setting" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 7: Information processing



Describe the information processing model for catching a ball in rounders:

Input:

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Decision-making:

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Output:

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Feedback:

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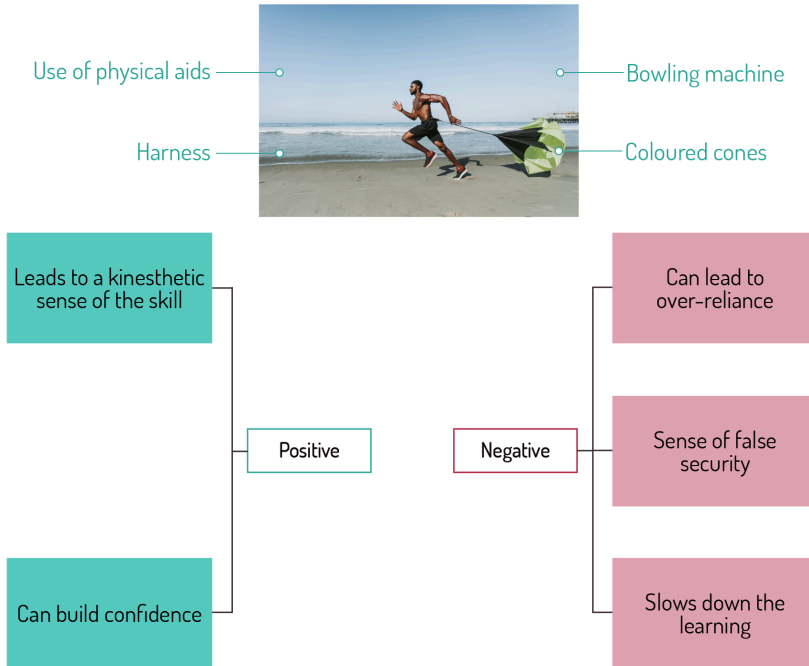


Want to know more?

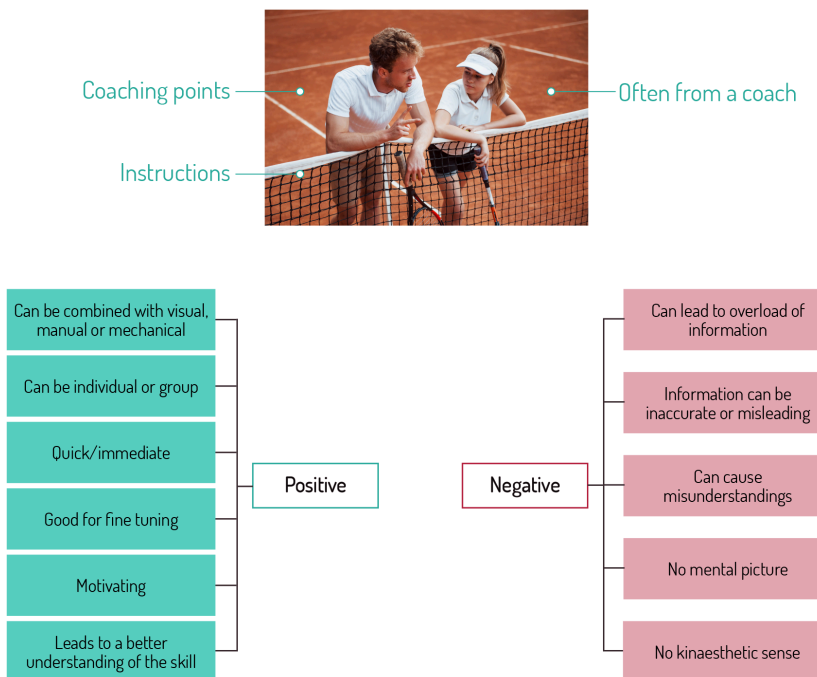
Watch the tutorials "Basic information processing" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).

# Topic 8: Guidance

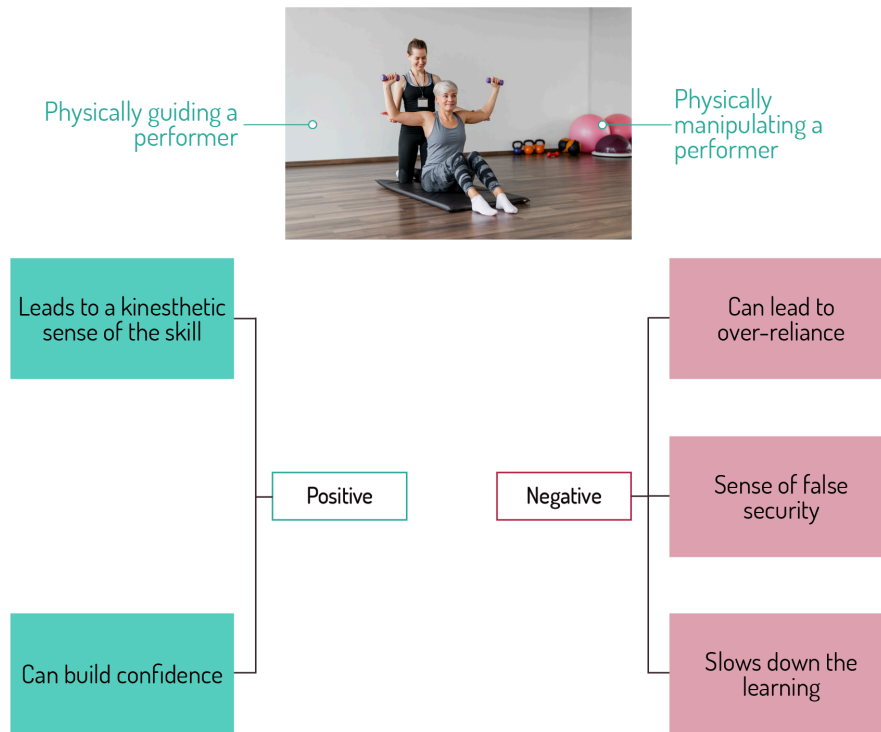
## Mechanical guidance



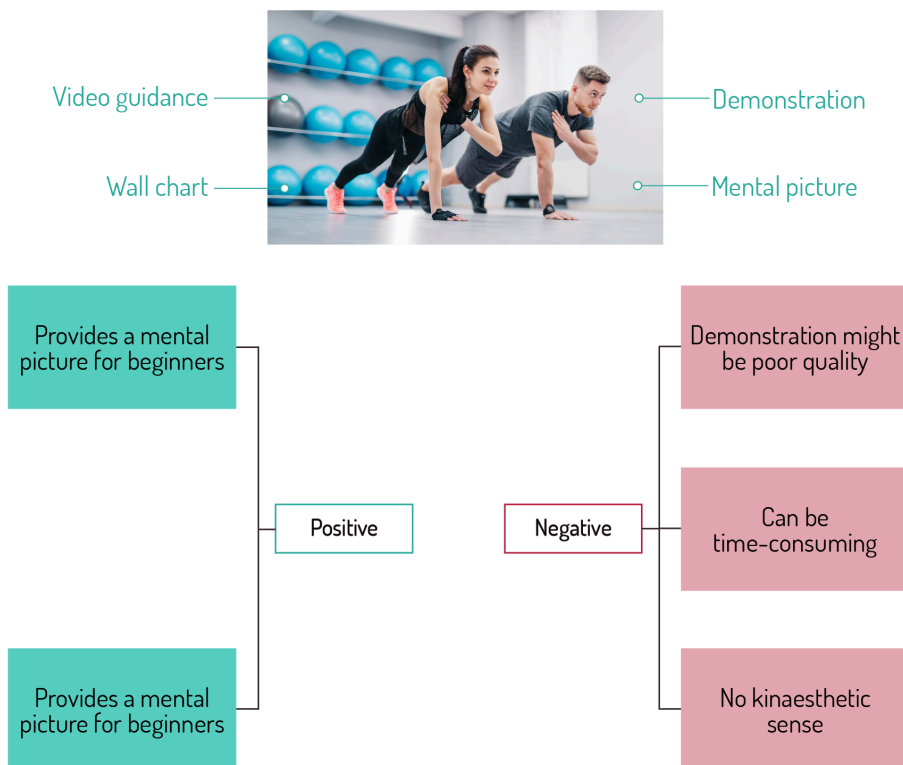
## Verbal guidance



## Manual guidance



## Visual guidance



Select the most appropriate stage of learning for each type of guidance and justify.

Stage of learning	Type of guidance (you can select more than one)	Example	Justify
Cognitive	Visual Verbal Manual Mechanical	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>
Associative	Visual Verbal Manual Mechanical	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>
Autonomous	Visual Verbal Manual Mechanical	<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>



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



## Topic 9: Factors that affect participation



Discuss how the following barriers could limit participation in sport for the athletes below:



A young para-athlete planning to compete in para shot-put for TeamGB at the 2024 Paralympic games

Possible barriers:

- Cost
- Access
- Role models

Discuss: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



A young male ballerina wanting to go to The Royal Ballet School

Possible barriers:

- Society
- Peers
- Access

Discuss: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



The local U16 girls rugby team

Possible barriers:

- Role models
- Gender
- Family

Discuss: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

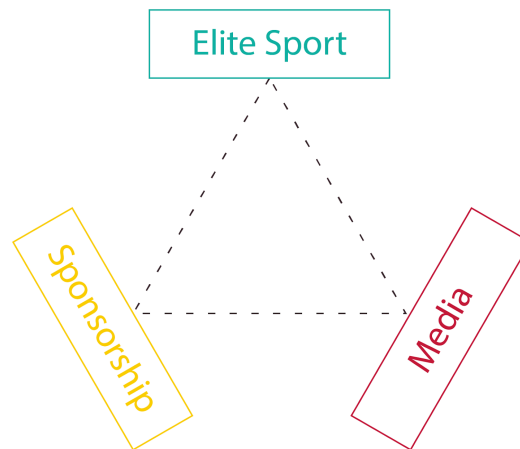


Want to know more?

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

# Topic 10: Commercialisation of sport (including the role of media, advertising and globalisation of sport)

## The Golden Triangle



**Explain**  
Why? How? What?

because  
through  
by  
Therefore,  
This means  
The reason for this

**Explain**

 <b>Topic</b> from the question  <small>What is the question asking about? In an 'Explain' question, you are being asked to explain <b>why</b> or <b>how</b> something. You are likely to find a keyword or phrase in the question which can typically be extracted and used in your answer.</small>	 <b>Skill language</b> from Roadmap  <small>because through by via by a process of This means The reason for this is plus your own alternatives</small>	 <b>Content</b> from knowledge  <small>So far, you have the beginnings of the sentence. You now have to use your knowledge to finish the answer and pick up all of the Marks.</small>
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Want to know more?
 Watch the tutorial "Commercialisation" on [TheEverLearner.com](https://www.theeverlearner.com) (subscribers only).