



# Technical Learning Grids

for A Level Year 2 AQA PE

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# Teacher's Introduction

These learning grids are a tool designed to help you deliver AQA A Level PE (Year 2). The concept is that your students are assigned a set of pages to read from their notes, ZigZag Education's Course Companion or a textbook, possibly for homework, and then asked to complete the relevant learning grids.

The grids are designed to ask questions in sufficient detail that your students are able to study the relevant sections and find the correct answers. Completed grids are provided so that your students' answers can be marked or checked. It may also be useful to hand them out to students during their revision to assist them with answers they cannot find.

These activities are particularly useful for weaker students, who find this method of studying of great value, particularly if they find it difficult to absorb information in class.

Advantages of using these learning grids are:

- Resulting grids contain a summary of what students need to know that is useful for revision.
- They are an easy-to-set, yet valuable homework.
- They are a useful catch-up tool to help students who have missed a lesson.
- They can be used as a basis for cover lessons that require minimal preparation and minimal interaction from the cover teacher.
- They are an independent learning resource.

You may want to photocopy the sheets onto A3 paper, particularly for students with reading or writing difficulties.

This edition supports students using the following sources:

**Hodder Education textbook *AQA A Level PE Book 2***  
by C Atherton, S Burrows, R Howitt and S Young (ISBN 978-1471859595)

and

**7716 – ZigZag Education Course Companion for AQA A Level PE (Year 2)**

ZigZag Education is not affiliated with  
Hodder Education nor AQA.

When the information that students require to answer a question is not included in the cross-referenced textbook, the question is labelled as a research task.

October 2018

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\* resulting from minor specification changes, suggestions from teachers and peer reviews, or occasional errors reported by customers

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### 3.1.1 – Applied Anatomy and Physiology

#### 3.1.1.6 – Energy Systems 1: Energy Transfer in the Body

Questions	
Energy Transfer in the Body	1. Why is adenosine triphosphate (ATP) described as the 'energy currency' of the body?
	2. Write an equation to show the breakdown of ATP.
	3. Which enzyme is responsible for the breakdown of ATP?
	4. How long can the energy created at the breakdown of adenosine triphosphate be used for?
	5. Write an equation to represent the resynthesis of ADP to ATP.
	6. Complete the grid to explain how the ATP-PC system creates energy.

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## Energy Transfer in the Body

7. Complete the grid to explain how the anaerobic glycolytic system creates energy.



Type of reaction:

Fuel used and where it's stored:

Enzymes that breakdown of fuel:

Site of reaction:

ATP yield:

By-products:

Length of time system can be used for:

8. Complete the grid to explain how the aerobic system creates energy.



Type of reaction:

Fuel used:

Enzymes that catalyse breakdown of fuel:

Site of reaction:

The stages of the aerobic system:

ATP yield:

By-products:

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Energy Transfer in the Body	9. Explain the role of the Krebs cycle in the aerobic system.	
	10. Explain the role of the electron transport chain in the aerobic system.	
	11. Explain the importance of beta oxidation in the aerobic system.	

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3.1.1 – Applied Anatomy and Physiology

3.1.1.6 – Energy Systems 2: Energy Transfer during Exercise

	Questions	
Energy Transfer during Exercise	<div>1. Why is it important that the body has numerous energy systems to generate ATP?</div> <div></div>	
	<div>2. Sketch a graph to represent an energy continuum of all three energy systems.</div> <div></div>	

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Energy Transfer during Exercise	<p>3. Using your graph, explain how the energy systems are used at different intensities and durations of exercise. Give appropriate examples.</p>	
	<p>4. Describe how athletes of different fitness levels and fitness types would utilise different energy systems at different times.</p>	

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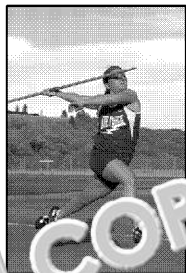




Energy Transfer during Exercise		Fibre type	
	5. Give reasons for the differences in ATP production of fast-twitch (type 1) and slow-twitch (type 2) muscle fibres	Fast-twitch (type 2)	
		Slow-twitch (type 1)	
	6. A by-product of the anaerobic glycolytic energy system is the onset of blood lactate accumulation (OBLA) – a rise of lactate above four millilitres per litre.  Define the terms <i>lactate accumulation</i> , <i>lactate buffering</i> and <i>lactate threshold</i> .	Lactate accumulation:	
		Lactate buffering:	
		Lactate threshold:	
	7. Describe the effects of lactate accumulation on sprint and power performance.		

# Energy Transfer during Exercise

8. Identify which primary energy system the following sportspeople/skills would utilise.



Javelin thrower



800 m runner



Tennis serve




Tour de France cyclist

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Questions												
Energy Transfer during Exercise	<p>9. Below are the male world (WR) times of three swimming events. Identify each event as aerobic or anaerobic, and give your answers.</p> <div></div> <table><tr><th>Event</th><th>100 m</th><th>400 m</th><th>10,000 m</th></tr><tr><td>WR time</td><td>9.58 s</td><td>43.03 s</td><td>26 min 17 s</td></tr></table>	Event	100 m	400 m	10,000 m	WR time	9.58 s	43.03 s	26 min 17 s	Event	Aerobic/ anaerobic	
		Event	100 m	400 m	10,000 m							
		WR time	9.58 s	43.03 s	26 min 17 s							
	100 m											
400 m												
10,000 m												
	<p>10. Define the term <i>oxygen consumption</i>.</p>											

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Energy Transfer during Exercise	11. Explain why exercise at maximal and submaximal intensities creates an oxygen debt (oxygen deficit).	
	12. Explain the concept of excess post-exercise oxygen consumption (EPOC) in recovery of aerobic metabolism.	
	13. Draw two graphs to represent the difference in oxygen deficit and oxygen debt (EPOC) between maximal and submaximal exercise.	Submaximal exercise

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Energy Transfer during Exercise	 <p>14. Name and describe the two components of energy transfer during the time frames in which the components take place.</p>	1.	Description:	
			Time frame:	
		2.	Description:	
	15. How does the intensity of exercise affect recovery and EPOC?		Time frame:	

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### 3.1.1 – Applied Anatomy and Physiology

#### 3.1.1.6 – Energy Systems 3: $VO_2$ Max, Measurements of Energy Expenditure

VO <sub>2</sub> Max, Measurements of Energy Expenditure and Specialist Training Methods	Questions		
	1. Define $VO_2$ max.		
	2. Explain how each the six factors given affects $VO_2$ max.	Factor	
		Gender	
		Body composition	
		Age	
		Training type	
		Genetics	
		Lifestyle	

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Effect	
Increased cardiac output	
Increased capillarisation	
Increased haemoglobin and stores of myoglobin	
Increased number and size of mitochondria	



Increased number and size of mitochondria



**VO<sub>2</sub> Max, Measurements of Energy Expenditure and Specialist Training Methods**

4. Identify and describe the test of energy expenditure shown in the image below.



5. Describe the process of lactate sampling and give an example of an athlete who would benefit from knowledge of results from lactate sampling.

Description

Sporting example

6. Direct gas analysis is a test conducted in a laboratory to measure VO<sub>2</sub> max.

Briefly outline the procedure for a direct gas analysis test.



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# VO<sub>2</sub> Max, Measurements of Energy Expenditure and Specialist Training

## Methods

7. To allow for gas analysis, the gases an athlete breathes out during exercise are collected in Douglas bags for later analysis.

Explain how the respiratory exchange ratio (RER) is used to determine energy expenditure.



8. Why must athletes slowly climb to the required altitude when altitude training?

9. Outline the principle of training at altitude.



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<b>VO<sub>2</sub> Max, Measurements of Energy Expenditure and Specialist Training Methods</b>	10. Describe the effects of altitude training on the respiratory and cardiovascular systems.	Respiratory system	
		Cardiovascular system	
	11. Explain how timing of altitude training and training above 2,400 m should be carefully monitored.		
	12. Outline the basic principle of HIIT.		
	13. List four variables that can be used to vary HIIT.	1.	
		2.	
		3.	
		4.	

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**VO<sub>2</sub> Max, Measurements of Energy Expenditure and Specialist Training Methods**

14. Describe plyometric training.		
15. Give three examples of sports or athletes that would benefit from plyometric training.		
16. Name and explain the three phases of plyometric training.	Phase	
17. SAQ training stands for 'speed, agility and quickness' training. Define the terms.	Speed	
	Agility	
	Quickness	
18. Outline the concept of SAQ training.		

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## 3.1.2: Skill Acquisition





### 3.1.2.5.1 – Memory Models 1: General Information Processing

Questions		
General Information Processing Model	1. Outline the input stage of the general information processing model.	
	2. The senses within the athlete that absorb information are broadly called proprioceptors. Explain the importance of proprioception.	
	3. Using an example of a netball player, describe how the following senses collect information regarding their performance.	Sight
		Auditory
		Balance
		Touch
		Kinesthesia

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General Information Processing Model	<p>4. A footballer is about to make a defensive header. They can hear the crowd and their teammates shouting, and they can see the ball coming towards them, as well as the opposition's players around them and the location of their own teammates.</p>  	a) Importance of selective attention	
		b) Strategies to improve selective attention	
	<p>a) Explain the importance of selective attention in this scenario.</p> <p>b) Suggest three strategies that coaches could employ to improve selective attention of their players.</p>		
	<p>5. Outline the decision making process of the General Information Processing Model.</p>  		

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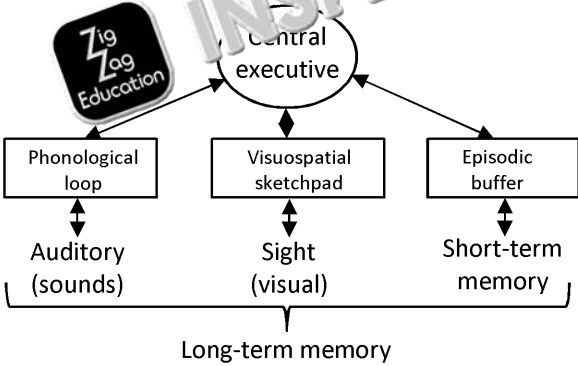


General Information Processing Model	6. Identify the capacity of each of the following: short-term sensory store (STSS), short-term memory (STM) and the long-term memory (LTM).		
	7. Identify and describe the two final stages of the information processing model.	me	
		Output	
		Feedback	

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General Information Processing Model	<p>8. The working memory model (Baddeley, 1986) proposes the manner in which information is stored, transferred and processed.</p>  <p>Explain the role of each named feature of the model.</p>	Feature	
		Central executive	
		Phonological loop	
		Visuospatial sketchpad	



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### 3.1.2: Skill Acquisition

#### 3.1.2.5.2 – Memory Models 2: Efficiency of Information Processing

Questions			
Efficiency of Information Processing	 <p>1. Define the following terms:</p>	Reaction time:	
		Response time:	
		Movement time:	
	2. Describe the difference between simple reaction time and choice reaction time.		
	<p>3. Games players are often faced with choice reaction time as a result of an ever-changing environment. Give sporting examples of games players and then provide examples of multiple stimuli these athletes would be faced with during a match.</p> 		

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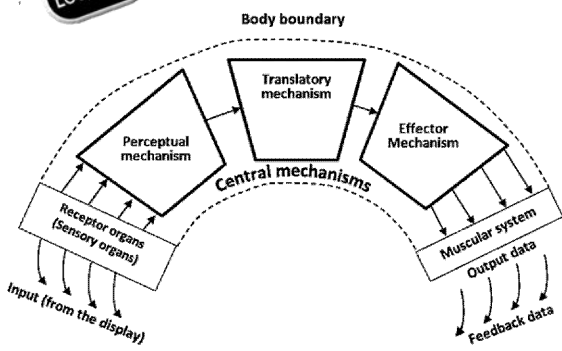


Efficiency of Information Processing	4. Provide an equation to show the relationship between reaction time, response time and movement time.		
	5. a) Draw a simple graph to illustrate Hick's law with regard to reaction time.	a)	
	b) Explain what the graph shows.	b)	
	6. Outline the <i>single channel hypothesis</i> .		
	7. Explain what the psychological refractory period is.		

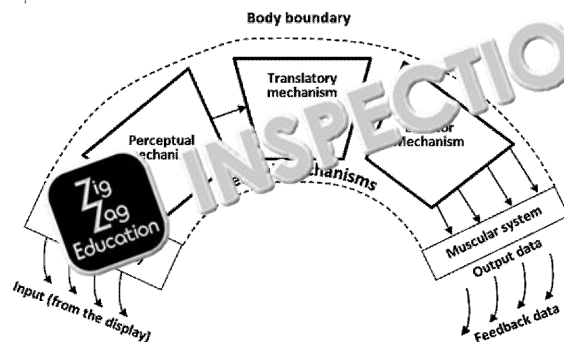
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Efficiency of Information Processing		Component	Description
		Display environment	
		Sensory organs	
		Perceptual mechanism	
	<p>8. Whiting's information processing model demonstrates how athletes processes information from their senses into an appropriate response.</p>  <p>Describe each of the components of Whiting's model and give a sporting example of each.</p>	Translatory mechanism	

8. Whiting's information processing model demonstrates how an athlete processes information from their senses into an appropriate response. (continued)



Describe each of the components of Whiting's model and give a sporting example of each. (continued)

Effector mechanism

Muscular system output data

Feedback data

9. Anticipation can be split into spatial summation and temporal summation.

Define these three terms.

Anticipation

Spatial summation

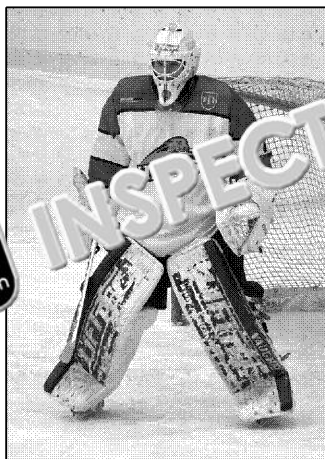


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10. An ice hockey goalkeeper wants to improve their response time, to improve their performance by preventing goals.



Suggest six strategies the athlete could use to help improve their response time.

1

2

3

4

5

6

11. Outline the basic principle of schema theory.

12. How do rule and recognition schema occur?

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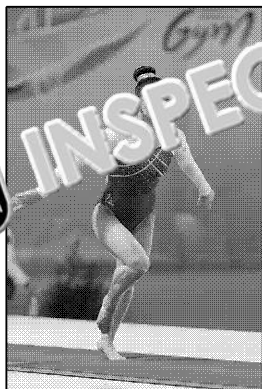
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Efficiency of Information Processing	13. Describe the two parameters of recall schema and give a sporting example for each.		Desc
		Initial conditions	
	14. Describe the two parameters of recognition schema and give a sporting example for each.	Response specification	
			Desc
	15. Define the terms <i>chunking</i> and <i>chaining</i> .	Sensory consequences	
		Response outcomes	
		Chunking	
		Chaining	

Efficiency of Information Processing

16. Explain how a gymnast learning a floor routine can apply the processes of chaining and chunking.



Chunking

Chaining

17. Suggest three strategies a coach could employ to increase the use of schemas.



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## 3.2.1: Exercise Physiology

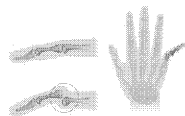

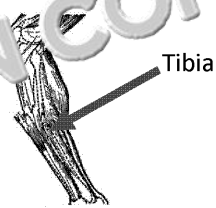
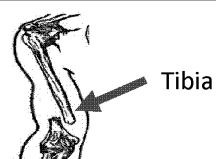
### 3.2.1.3 – Injury Prevention and the Rehabilitation of Injury 1

Types of Injury	Questions			
	1. Define chronic injuries.			
	2. Define acute injuries.			
	3. Using examples, name and describe the three types of acute injury that can occur in sport			
	4. Using examples, name and describe the two types of chronic injury that can occur in sport.			
	5. Fractures are acute injuries. Describe the difference between a <i>compound</i> fracture and a <i>simple</i> fracture.	Compound		
		Simple		

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Types of injury	6. State which type of injury tennis elbow would be classified as, and explain why.		
	7. Categorise a <i>dislocation</i> using the acute/chronic and soft/hard tissue injury categories. Give a sporting example in which a dislocation has occurred.	Acute or chronic?	
		Soft or hard tissue injury?	
		Sporting example	
	8. Identify and categorise the injuries shown in the images.		
			
		 Tibia	
		 Tibia	



## 3.2.1: Exercise Physiology


### 3.2.1.3 – Injury Prevention and the Rehabilitation of Injury 2

Injury Prevention, Rehabilitation and Recovery	Questions			
	<p>1. Describe the term <b>injury prevention</b> and the importance of <b>injury prevention</b> as an injury prevention method.</p> 	Importance	Description	
	<p>2. Explain the effect of using incorrect equipment or clothing on the risk of injury to an athlete.</p>			
	<p>3. Outline three examples of sports that have enforced the use of equipment in order to prevent injuries.</p> 			

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Injury Prevention, Rehabilitation and Recovery	4. Outline how warm-ups can influence the risk of injury.		
	5.  Plan a plan for an effective warm-up of a football player.	Stage one	
	6. Explain how increased flexibility can reduce the risk of injury.		

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## Injury Prevention, Rehabilitation and Recovery

<div>7. Name and describe the four types of stretch that can be used as part of flexibility training.</div>	1.		
	2.		
	3.		
	<div>8. Taping and bracing are often used for sports injuries. Explain the role of taping and bracing in the treatment of an ankle sprain.</div>		
	<div>9. Why would an athlete benefit from proprioceptive training following an injury?</div>		
	<div>10. Name one type of injury that proprioceptive training is used to rehabilitate.</div>		
	<div>11. Name and describe four methods / pieces of equipment that can be used in strength training.</div>		
	Method/ equipment		

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## Injury Prevention, Rehabilitation and recovery

12. Explain how hydrotherapy could help in injury rehabilitation following exercise.

13. A marathon runner experiences delayed onset muscle soreness in the days following the race – there is some swelling around the injured muscles.

Explain how a hyperbaric chamber would help the athlete's rehabilitation.

14. Ice baths are used as a cooling aid to help an athlete recover from injury or exercise.

Explain one other cooling method an athlete could use to rehabilitate from injury.

15. Compression bandages are commonly used by athletes to help them recover from exercise. Explain why.



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## Injury Prevention, Rehabilitation and Recovery

16. Why are foam rollers used by athletes when recovering from exercise?

17. Suggest why an athlete may wish to have a sports massage after running a half marathon event.

18. Give an example of a cold therapy treatment and explain how it helps recovery from exercise.

Example:

Explanation:

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Injury Prevention, Rehabilitation and recovery	<p>19. The RICE method is a method used to treat soft tissue injuries, such as strains.</p> <p>Identify what each of the letters means and describe what is involved at each stage</p>	R	
		I	
		C	
		E	
	<p>20. It is important for an athlete to have enough sleep prior to a sporting event, to refuel and repair their body.</p> <p>Identify the effects that a lack of sleep can have on an athlete.</p>		
	<p>21. Explain the importance of nutrition in recovery.</p>		

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## 3.2.2: Biomechanical Movement

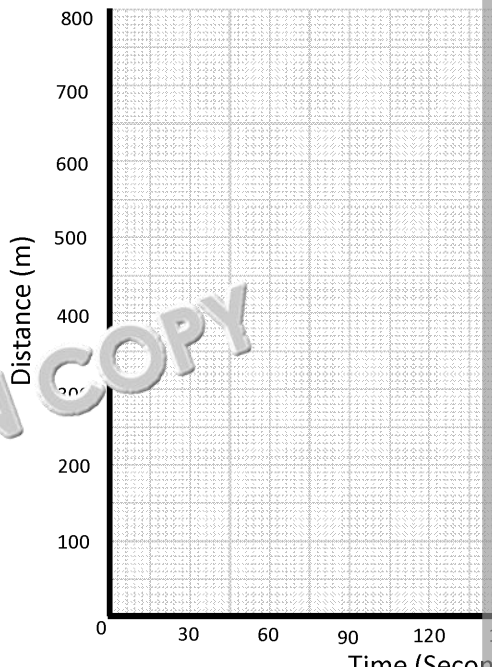
### 3.2.2.3 – Linear Motion

Questions			
Linear Motion	1. Define <i>linear motion</i> .		
	2. Define <i>scalar</i> and <i>vector</i> quantities.	Scalar quantity:	
		Vector quantity:	
	3. Fill in the table by naming three scalar quantities, defining each quantity, providing an equation for each quantity and stating its unit of measurement.	Name	Definition
	4. Define <i>displacement</i> . Provide an equation to represent displacement, including its units.	Definition	
		Equation	
	5. Define <i>velocity</i> . Provide an equation to represent velocity, including units.	Definition	
		Equation	

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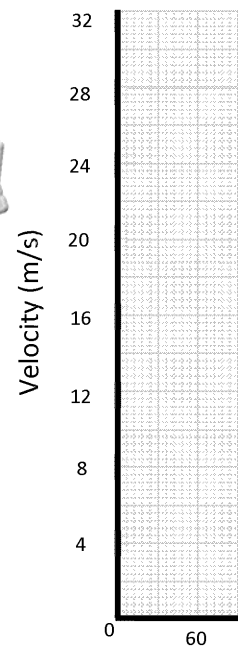


Linear Motion	6. Define <i>acceleration and deceleration</i> . Provide an equation to represent acceleration and deceleration, including units.	Definition	
		Equation	
	7. Define <i>weight</i> . Provide an equation to represent weight, including units.	Definition	
		Equation	
	8. Define <i>momentum</i> . Provide an equation to represent momentum, including units.	Definition	
		Equation	
	9. Plot the following graphs of linear motion.  a) Distance–time graph: An 800 m runner running at a constant pace, covering their first lap of the track in 1 minute 15 seconds, and completing the race in 3 minutes 30 seconds.		

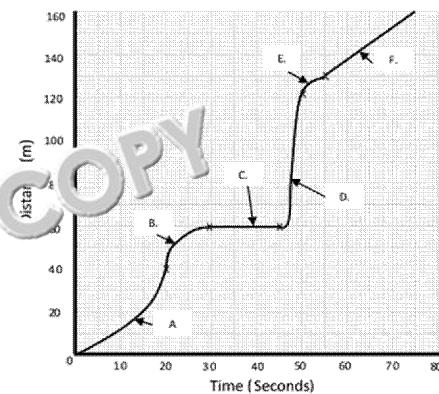


## Linear Motion

- b) A cyclist rides at constant speed of 7 m/s for 2 minutes. They go down a hill and accelerate at a constant rate for 2 minutes, reaching a peak of 14 m/s. At the bottom of the hill, they gradually decelerate to 7 m/s over 1 minute, and then cycle for a further 1 minute at constant speed. Plot a speed–time graph to show this linear motion.



10. The graph given is for a lacrosse player, taken during a match. Indicate what each of the identified lines (A–F) represent.



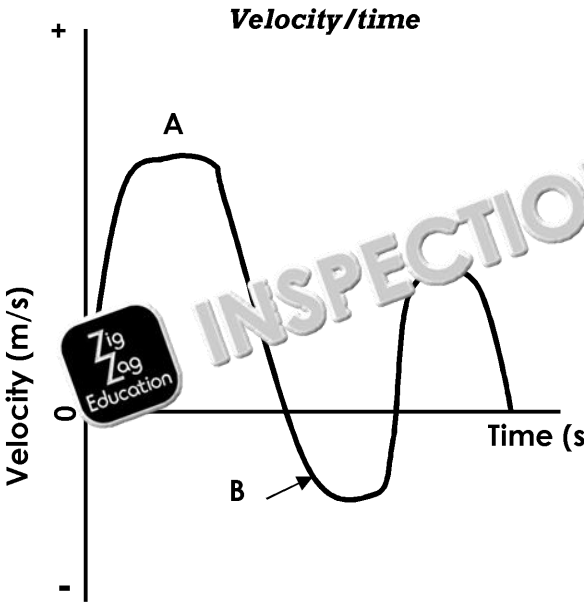

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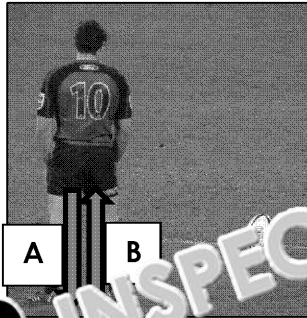
Linear Motion	11. State what is happening at the following points: 0 to A, A to B, the instant of B.		
	12. Define <i>impulse</i> . Provide an equation to represent impulse, including units.	Definition	
		Equation	
	13. Explain the relationship between impulse and momentum.		

Linear Motion	<p>14. The two graphs below show the graphs of a 100 m sprint by a sprinter at two different stages of the race.</p> <p>For each graph, state what approximate stage of the race is being shown, the effect this has on the sprinter's movement, and a justification for your answer.</p>	Positive Impulse	
		Force	
		Negative Impulse	
		Stage of race:	
		Effect on sprinter:	
		Justification:	
		Stage of race:	
		Effect on sprinter:	
		Justification:	
	15. Describe the term <i>internal muscular</i>		
	16. Describe the term <i>external force</i> and give an example of an external force.		

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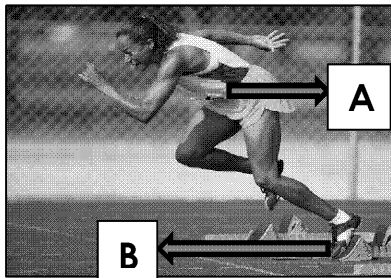
17. Name and describe the two vertical forces acting on the athlete (labelled as A and B).



A

B

18. Name and describe the two horizontal forces acting on the athlete (labelled as A and B).



A

B

19. Describe four factors that affect the air resistance experienced by an object or a body moving through a fluid.

1

2

3

4

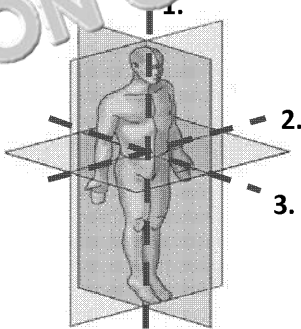
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## 3.2.2: Biomechanical Movement

### 3.2.2.4 – Angular Motion

Questions		
Angular Motion	1. Define <i>angular motion</i> .	
	2. Name and define the three axes (1, 2 and 3) that rotation can occur around.	
	3. How can angular motion be created about one of the three axes?	
	4. Define Newton's three laws of motion with regard to <i>angular motion</i> and give a sporting example of each.	Definition
		1 <sup>st</sup> law of motion
		2 <sup>nd</sup> law of motion
		3 <sup>rd</sup> law of motion

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## Angular Motion

5. Please provide the definitions and equations for each of the quantities of angular motion.

Definition

Equation

Equation

Definition

Equation

Definition

Equation

Definition

Equation

6. Explain why a skater keeps their arms pulled into their body while rotating about the longitudinal axis.

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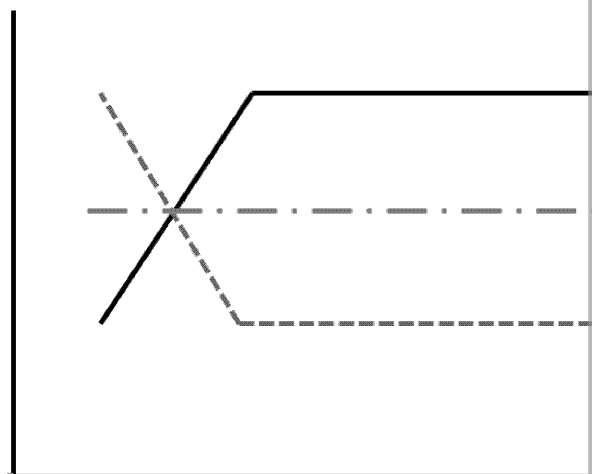
# Angular Motion

7. How does mass of a body affect moment of inertia?

8. Explain the conservation of angular momentum in relation to Newton's laws.



9. Label A, B and C of the inverse relationship graph.



Frame

A =

B

C =

10. What does the inverse relationship graph tell us about rotation around an axis?



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## 3.2.2: Biomechanical Movement

### 3.2.2.5 – Projectile Motion and 3.2.2.6 – Fluid Mechanics

Questions	
Projectile Motion	1. a) When throwing a shot, how will height of release affect the distance the shot is thrown?
	b) Draw a graph to represent the effect that release height has on the horizontal displacement of an object.
	2. a) In sports that require an object to travel as far as possible, what is the optimum angle of release of the projectile?
	b) Draw a diagram to show the effect of release height on horizontal displacement.

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Projectile Motion	3. Give a sporting example of when the optimal angle of release/projection is greater than $45^\circ$ .	
	4. Describe the flight path of an object with a release angle of $90^\circ$ .	
	5. When throwing an object, speed of release is an important component for maximising the horizontal distance. Explain why.	
	6. Complete the free body diagram of a shot in flight. Label the direction of flight, the weight of the object and the air resistance acting on the object.	
	7. Describe the difference between a parabolic flight path and a non-parabolic flight path.	

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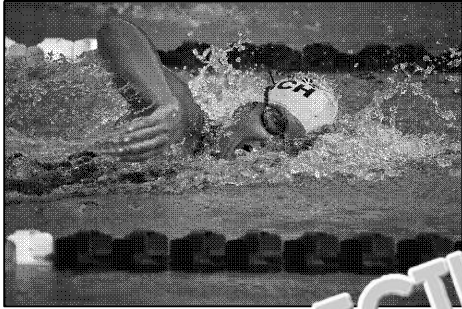


Projectile Motion	<p>8. Draw and label a free body diagram of the parabolic flight path and forces of a shot.</p>	
	<p>9. Draw a free body diagram of the non-parabolic flight path and forces of a shuttlecock.</p>	

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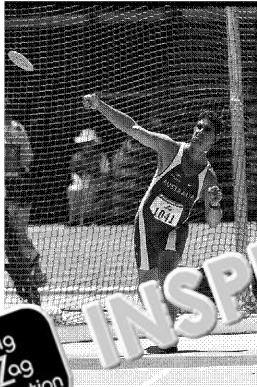


Questions		
Fluid Mechanics	10. Name the force that acts against movement in water.	
	11. Describe how the velocity of an object moving in water affects the drag the object will experience.	
	12. How does the mass of an object moving through water affect the drag acting against the object?	
	13. Explain how the shape and cross-sectional area of an object affect the drag acting on an object moving through water.	
	14. How does streamlining and the surface type of an object moving through water impact on drag?	
	15. Explain how a swimmer would use the principles of fluid mechanics to maximise performance. 	

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Fluid Mechanics	<p>16. Explain how a discus thrower could increase flight time using Bernoulli's principle.</p> 	
	<p>17. Explain how Bernoulli's principle can be adapted by Formula One teams to increase the grip their vehicles have on the track.</p>	
	<p>18. Name one other sport or athlete which would benefit from downward lift force.</p>	

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### 3.2.3: Sports Psychology

#### 3.2.3.1.7 – Achievement Motivation Theory

Achievement Motivation	Questions	
		Match Characteristics
	<p>1. Give the characteristics of need to achieve (N<sub>ach</sub>) and need to avoid failure (N<sub>af</sub>) components, proposed by Atkinson.</p>	
	<p>2. Atkinson's model of achievement motivation also contains <i>situational</i> components.</p> <p>a) Using a sporting example, explain the impact <i>incentive values</i> have on an athlete.</p> <p>b) Explain the <i>probability of success</i> for an athlete.</p>	

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Achievement Motivation	3. Name and describe the two types of goal identified in the achievement goal theory.	1.	
	4. Give two strategies that coaches and athletes could adopt to develop approach behaviours.		
	5. Suggest how a 100 m athlete can apply the two types of goal identified in achievement goal theory to their performance.		

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### 3.2.3: Sports Psychology

#### 3.2.3.1.11 – Attribution theory and 3.2.3.1.12 – Self-Efficacy and Confidence

Questions	
Attribution Theory	1. Describe the controllability dimension proposed in Weiner's model of attribution.
	2. Describe the stability dimension proposed in Weiner's model of attribution.
	3. Complete Weiner's model of attribution in the grid given.
	4. A squash player has just won their first match. Speaking to their coach afterwards, they said the following:  'I think my win was down to a number of things today. Firstly, my opponent wasn't very good today, making my job easier. I also had a lot of help from the referee who gave me a lot of 50-50 calls.'  Using your knowledge of Weiner's model of attribution, explain how this player could use attribution retraining to give them ownership of their victory.

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Attribution Theory	5. Define <i>learned helplessness</i> .	
	6. Using a sporting example, explain how learned helplessness can become a barrier to performance.	
	7. Suggest strategies an athlete or coach could adopt to avoid learned helplessness, thereby benefiting their performance.	

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<p>Attribution Theory</p>	<p>8. Explain the link between attribution, task persistence and motivation.</p>	
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Questions		
Self-efficacy and Sports Confidence	1. Define <i>self-confidence</i> and <i>self-efficacy</i> .	Self-confidence
		Self-efficacy
	2. List the characteristics of someone with high self-efficacy, self-confidence and self-esteem.	
	3. Describe how self-efficacy affects performance.	
	4. Describe how self-efficacy affects self-esteem.	

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Self-efficacy and Sports Confidence	<p>5. a) Complete Vealey's model of sports confidence by filling in the missing information.</p> 	
	<p>b) With reference to the missing information identified in question 5 a), describe Vealey's model of sports confidence.</p> 	

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Self-efficacy and Sports Confidence	<p>6. Name and describe the four factors Bandura identifies as affecting self-efficacy. How can a coach enhance self-efficacy?</p> 	1.
		2.
		3.
		4.
	<p>7. Evaluate the effects a home field advantage can have on both the home and away athlete(s)/team</p> 	Home Team / Athlete

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8. A coach of a long jumper has identified that the athlete needs to increase their self-efficacy, to improve their performance.



Suggest four strategies the coach could use to improve the athlete's self-efficacy.

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### 3.2.3: Sport Psychology

#### 3.2.3.1.13 – Leadership and 3.2.3.1.14 – Stress Management

Questions			
Leadership in Sport	1. Name six common characteristics that successful leaders possess.		
	2. Explain the difference between a prescribed leader and an emergent leader.		
	3. Describe the advantages and disadvantages of emergent leaders and prescribed leaders.		Advantages
		Emergent	
		Prescribed	

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Leadership in Sport	4. Define an <i>autocratic</i> leader.		
	5. Outline the advantages and disadvantages of autocratic leaders.	Advantages	
	6. Define a <i>democratic leader</i> . Outline the advantages and disadvantages of democratic leaders.	Definition:	
		Advantages	

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Leadership in Sport		Definition:	
		Advantages	
Leadership in Sport	<p>7. Define a <i>laissez-faire</i> leader, outline the advantages and disadvantages of a laissez-faire leader.</p> 		
	<p>8. Fiedler's contingency theory suggests one way that leadership style is best is dependent on the situation, i.e. when everything is good.</p> <p>Describe what is meant by the 'most favourable situation'.</p> 		

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Leadership in Sport	9. According to Fiedler's contingency theory, which leadership style is best suited to both favourable and unfavourable situations?	
	10. A least favourable situation is identified between a task-oriented leader and a team of netball players. How can a leader improve the least favourable situation?	
	11. Complete Chelladurai's multidimensional model of sports leadership with the factors that affect leadership behaviour and the type of leadership behaviour.	

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Leadership in Sport	<p>12. Using the above model, explain Chelladurai's model of sports leadership</p>			
	<p>13. Identify the antecedents from Chelladurai's multidimensional model of sports leadership, and give examples of leader behaviour for the following scenario:</p> <p>A bungee jump instructor is taking a group of complete novices out to bungee jump.</p>	Antecedents	Leader behaviour	
			Required behaviour	
			Preferred behaviour	
			Actual behaviour	
			Required behaviour	
			Preferred behaviour	

Questions	
Stress Management	1. Define <i>stress</i> .
	2. Define <i>stressor</i> .
	3. Explain the importance of a warm-up and how it can help stress management in athletes.
	4. Identify potential causes of stress in sport.
	5. Explain the difference between somatic stress and cognitive stress, and provide an example for each.

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Stress Management	6. Fill in the table of cognitive stress management techniques by either identifying the cognitive method, describing the cognitive method or giving an example of the cognitive method.	Cognitive method	Description
		Positive thinking / self-talk	
			The active process of blocking thoughts before they impact. When a negative thought enters a person's mind, the person will redirect their attention to something else.
			The act of rehearsing a skill in an individual's mind before competition. Mental rehearsals show the individual what should be done.

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Stress Management	6. Fill in the table of cognitive stress management techniques by either identifying the cognitive method, describing the cognitive method or giving an example of a cognitive method (column 1).	Imagery	
		Attentional control and cue utilisation	
	7. Describe the three stages of psychological skills training (PST).	Stage 1: Educational	

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Stress Management	8. Describe <i>progressive muscular relaxation</i> as a somatic stress management technique, and the steps taken to achieve it. When might it be used?	
	9. Explain how biofeedback and breathing control can be used as somatic stress management techniques.	
	10. Describe the process of <i>breath control</i> to the mind.	

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### 3.2.4: Sport and Society and the Role of Technology and Sport

3.2.4.1 – Concepts of Physical Activity and Sport and

3.2.4.2 – Development of Elite Performers in Sport

Questions			
Concepts of Physical Activity and Sport	 <p>1. Describe the following terms: <i>physical recreation, sport, physical education and school sport.</i></p> 	Physical recreation	
		Sport	
		Physical education	
		School sport	

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## Concepts of Physical Activity and Sport

2. Physical recreation, sport, physical education and school sport all form the *bottom* stage of the sport development continuum.

Name and describe the four levels identified in the sport development continuum.



Stage

Foundation

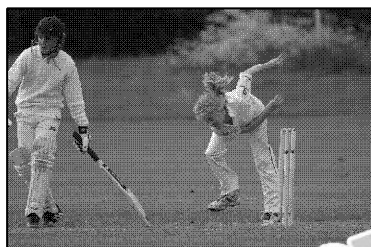
Participation

Performance

Excellence

Physical recreation

3. Outline the differences between physical recreation and sport.



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Concepts of Physical Activity and Sport	4. Outline the differences between physical education and school sport.	Physical education		
	5. Outline the differences between physical education and physical recreation.	Physical education		
	6. Identify whether the following are examples of physical education, recreation or sport.	Example		
		Attending a lane swim		
		Attending an athletics competition		
		Going kayaking with friends		
		Playing a game of volleyball with friends		
		Going on a bike ride		



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Concepts of Physical Activity and Sport	<p>7. What is the function of sport and how does this differ from the function of physical education?</p>	
	<p>8. Give two functions of physical education (PE) in schools.</p>	

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Concepts of Physical Activity and Sport	<p>9. PE is compulsory, but school sport has an element of choice. Suggest three benefits for a student deciding whether to take part in school sport.</p>	
	<p>10. Provide two similarities between sport and physical recreation.</p>	

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Development of Elite Performers in Sport	Questions	
	1. Describe talent identification and the role it plays in progressing young athletes into elite performers.	
	2. Outline the <i>biological</i> factors that influence the development of an athlete from talent identification to elite performance.	
	3. Outline the <i>social</i> factors that influence the development of an athlete from talent identification to elite performance.	
	4. Outline the <i>cultural</i> factors that influence the development of an athlete from talent identification to elite performance.	

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Development of Elite Performers in Sport	5. Describe the roles and aims of UK Sport.		
	6. UK Sport uses a three-phase system to identify potential sporting talent in athletes.  Describe each of the three phases.	Phase	
		Phase 1	
		Phase 2	
		Phase 3	
	7. UK Sport offers a World Class Performance Programme.  Describe the two stages of the World Class Performance Programme.	1. Podium	
		2. Podium potential	

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Development of Elite Performers in Sport	8. Outline the key features of UK Sport's Gold Event Series programme.	
	9. Describe the talent recruitment programmes UK Sport has in place to develop young athletes into elite adult athletes.	
	10. Name the British national institutes of sport.	
	11. Identify the services that British national institutes of sport offer to develop sporting excellence.	

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Development of Elite Performers in Sport	12. Outline some of the strategies available to athletes to prevent dropouts from elite development programmes, from the national institutes of sport.	
	13.  national governing body (NGB)?	
	14. Explain the roles of national governing bodies (NGBs).	
	15. Explain the key features and aims of national governing bodies' <i>What are the plans.</i>	

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# 3.2.4: Sport and Society and the Role of Technology and Sport

## 3.2.4.3 – Ethics and 3.2.4.4 – Violence in Sport

Questions	
Ethics in Sport	1. Describe the difference between amateurism and professionalism.
	2. How did amateurism help develop national governing bodies?
	3. What is the Olympic Oath?
	4. What are the ways in which the Olympic Oath can be broken?

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Ethics in Sport	5. Define <i>sportsmanship</i> and <i>gamesmanship</i> and give a sporting example of each.		Definition
		Sportsmanship	
		Gamesmanship	
	6. Using examples, describe what is meant by having a 'win ethic'.		
	7. Describe <i>positive deviance</i> and <i>negative deviance</i> . Give a sporting example of each.		Descriptive
		Positive deviance	
		Negative deviance	

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Questions	
Violence in Sport	<p>1. Using examples, explain the main causes of violence in football.</p>
	<p>2. Describe the factors that influence violence among spectators.</p>

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Violence in Sport	3. Explain the implications of violence in sport for spectators.	
	4. Explain the implications of violence to the specific sport.	
	5. Explain the implications of violence in sport to the sports performers.	

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Violence in Sport	<p>6. Suggest three strategies that national governing bodies can employ to reduce violent behaviour of athletes, and three strategies they can employ to reduce violence of spectators in their sport.</p>	Players	
	 <p>6. Suggest three strategies that national governing bodies can employ to reduce violent behaviour of athletes, and three strategies they can employ to reduce violence of spectators in their sport. (continued)</p>	Spectators	
	<p>7. Explain how the media can help reduce violence in sport.</p> 		

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Violence in Sport	<p>8. How can policing reduce violence among spectators?</p>	
	<p>9. Suggest three ways in which a coach can reduce violence among their players.</p>	



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# 3.2.4: Sport and Society and the Role of Technology and Sport

3.2.4.5 – Drugs in Sport and 3.2.4.6 – Sport and the Law

Questions			
Drugs in Sport	<div></div> <div>1. Explain why an athlete may decide to use illegal drugs or doping to aid sports performance.</div>		
	<div></div> <div>2. For each of the following illegal supplements, provide: <i>the physiological effects, an athlete would benefit from taking the supplement, and any side effects.</i></div>	Supplement	Physiological effects
		Erythropoietin (EPO)	

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Drugs in Sport	<p>2. For each of the following illegal supplements, provide: the physiological effects, an athlete who would benefit from taking the supplement, and one side effect.</p> <p>(continued)</p>	Anabolic steroids	
		Beta blockers	
	<p>3. Explain the consequences of drug taking and doping in sport to the specific sport and the athletes/performers.</p>		
		Specific sport	

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Drugs in Sport	<p>3. Explain the consequences of drug taking and doping in sport to the specific sport and the athletes/performers. (continued)</p>	Performers/	
	<p>5. Describe role of UKAD and WADA and explain the strategies in place to prevent the use of illegal drugs and doping in sport.</p>	<p>Role:</p> <p>Strategies:</p>	

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Drugs in Sport

5. Give reasons why drug taking and testing *shouldn't* take place.



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Drugs in Sport

6. Give reasons why drug taking and testing should take place.

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Questions		
Sport and the Law		Performers
Sport and the Law	<p><b>1. Sports legislation can have positive or negative impacts on performers and officials. Give ways in which the law influences performers and officials.</b></p>	

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Sport and the Law	<p>2. Describe the ways in which coaches must work within the law as part of their 'duty of care'.</p>	
	<p>3. How is sports legislation used to control spectator safety and prevent hooliganism?</p>	


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### 3.2.4: Sport and Society and the Role of Technology and Sport

#### 3.2.4.7 – Impact of Commercialisation on Physical Activity and Sport

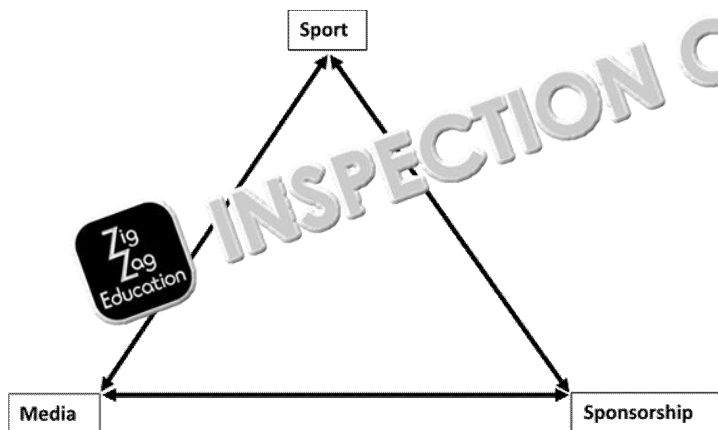
Questions		
Impact of Commercialisation on Physical Activity and Sport	<p>1. Using the subheadings, explain the factors that lead to the commercialisation of contemporary physical activity and sport.</p> 	Public interest and spectatorship
		Media interest
		Advertising and sponsorship

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2. Below is the 'golden triangle' diagram of the links between sport, media and sponsorship. Explain what the diagram means and the influence each factor has on the others.



3. Evaluate the positive and negative impacts of commercialisation and sponsorship on coaches and officials.



Coaches

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Impact of Commercialisation on Physical Activity and Sport	3. Evaluate the positive and negative impacts of commercialisation and sponsorship in sport on coaches and officials (individuals).		Positive
		Officials	
	4. Evaluate the positive and negative impacts of commercialisation and sponsorship in sport on <i>individual sports</i> .		Positive

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Impact of Commercialisation on Physical Activity and Sport	<p>5. Evaluate the impacts that commercialisation and sponsorship in sport have had on <i>performance</i>.</p>	
	<p>6. Evaluate the positive and negative impacts that commercialisation and sponsorship in sport have had on <i>audiences</i>.</p>	Positive

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Impact of Commercialisation on Physical Activity and Sport

7. Explain how television coverage of sport has changed in recent years. What impact have the changes had on spectatorship?



8. To the right is a graph showing the viewing figures for the American Super Bowl from 2007 to 2017.

- a) Analyse the graph to identify the changes in media views of the Super Bowl between 2007 and 2008.
- b) Explain the business reasons for the increase in popularity of the Super Bowl.



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Impact of Commercialisation on Physical Activity and Sport	9. Explain the changes in radio coverage and the effect of these on sport coverage.		
	10. Explain how the Internet has affected sport coverage.		
	11. State the positive effects the media has on sport to: <i>individual sports, the performers and the audience</i>	Impact on...	
		Individual sports	
		Performers	

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Impact of Commercialisation on Physical Activity and Sport	11. State the positive <i>effects</i> the media has on sport to: <i>individual sports, the performers and the audience.</i> (continued)		Audience	
	12. State the negative effects the media has on sport to: <i>individual sports, the performers and the spectators.</i>	Impact on...		
		Individual sports		
		Performers		

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Impact of Commercialisation on Physical Activity and Sport	12. State the negative effects the media has on sport to: <i>individual sports</i> , the performers and <i>the spectators</i> . (continued)	Audiences	
	 13. Describe the positive and negative impacts the media in sport has on coaches and officials. 		Positive
		Coaches	
		Officials	



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### 3.2.4: Sport and Society and the Role of Technology and Sport

#### 3.2.4.8 – The Role of Technology in Physical Activity and Sport

The Role of Technology in Sport	Questions	
	<div>1. Describe the use of sports analytics to monitor fitness and performance.</div> 	
	<div>2. Give a sporting example of how modern technology can be used to <i>monitor fitness</i> for elite sport performance.</div>	
	<div>3. Using examples, explain how sports analytics can be used to improve <i>technique</i>.</div> 	

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## The Role of Technology in Sport

### Technology

4. Name two pieces of equipment that aid *injury prevention* and explain the benefits performers receive from using these pieces of equipment.



1.

2.

5. Give examples of data that can be collected by *game analysis*.

6. Explain how *game analysis* can help optimise performance.



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## The Role of Technology in Sport

7. How could a coach or manager use sports analytics to aid talent identification / player scouting?

8. Technology has helped with improvement in facilities available. Give an example, suggest how improvements in facilities can impact on the performance of elite athletes.

9. How has modern technology impacted on the *facilities* available, and how has the Olympic legacy impacted on, general participation in sport?



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The Role of Technology in Sport	10. How has modern technology affected the <i>equipment</i> available to elite athletes?	
	11. Explain how modern technology has affected the <i>equipment</i> available for disabled athletes.	
	12. Explain how modern technology has affected the <i>equipment</i> available for elderly athletes?	

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The Role of Technology in Sport		Individual sports
	13. State the positive impacts that technology has had on <i>individual sports, performers</i> and <i>audiences</i> .	
		Coaches
	13. State the positive impacts that technology has had on <i>individual sports, performers, coaches</i> and <i>audiences</i> . (continued)	

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The Role of Technology in Sport		Individual sports
		Coaches



14. State the negative impacts that technology has had on *individual sports, performers, coaches and audiences*.



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