



GCSE MARKING SCHEME

SUMMER 2018

**GCSE (NEW)
PHYSICAL EDUCATION - UNIT 1
FULL COURSE
3550U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2018 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

WJEC GCSE PHYSICAL EDUCATION (NEW)

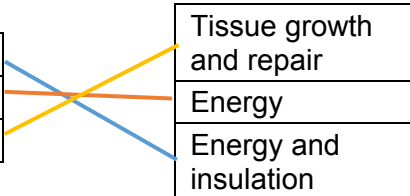
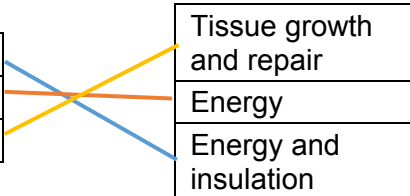
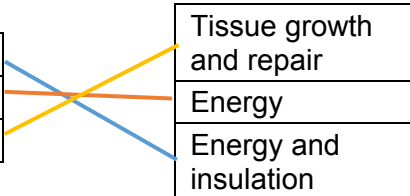
SUMMER 2018 MARK SCHEME

Question	Mark scheme	AO1	AO2	AO3	Total																										
1 (a)	Identify two muscle groups that cause movement at the knee joint of the sprinter. (AO1 2 marks) • Hamstrings • Quadriceps 2x1 mark	2			2																										
1 (b) (i)	Analyse the movement taking place at the elbow joint of the sprinter. (AO3 3 marks) If more than one box is ticked – no marks. But – except extension or flexion Tick one box only <table><tr><th>Movement pattern</th><th>'Tick'</th></tr><tr><td>Pronation</td><td></td></tr><tr><td>Extension</td><td>✓</td></tr><tr><td>Abduction</td><td></td></tr><tr><td>Flexion</td><td>✓</td></tr></table> Tick one box only <table><tr><th>Plane</th><th>'Tick'</th></tr><tr><td>Transverse</td><td></td></tr><tr><td>Sagittal</td><td>✓</td></tr><tr><td>Frontal</td><td></td></tr></table> Tick one box only <table><tr><th>Axis</th><th>'Tick'</th></tr><tr><td>Frontal</td><td>✓</td></tr><tr><td>Sagittal</td><td></td></tr><tr><td>Vertical</td><td></td></tr></table> 3x1 mark	Movement pattern	'Tick'	Pronation		Extension	✓	Abduction		Flexion	✓	Plane	'Tick'	Transverse		Sagittal	✓	Frontal		Axis	'Tick'	Frontal	✓	Sagittal		Vertical				3	3
Movement pattern	'Tick'																														
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(ii)	Identify 2 functions of the skeletal system when sprinting. • Provide movement • Support/shape/framework • (Any 2 from the above) 2x1 mark	2			2																										

Question	Mark scheme	AO1	AO2	AO3	Total								
(iii)	Analyse the runner in the DVD clip, to establish three bones involved in the arm action of the runner. AO3 (3marks) • radius • ulna • humerus no marks awarded for any other answer 3x1 mark			3	3								
(iv)	Identify the type of joint at the shoulder. Tick one box only. (AO1 1 mark) <table border="1"><thead><tr><th>Type of joint</th><th>'Tick'</th></tr></thead><tbody><tr><td>Hinge</td><td></td></tr><tr><td>Ball and socket</td><td>✓</td></tr><tr><td>Saddle</td><td></td></tr></tbody></table> 1x1 mark	Type of joint	'Tick'	Hinge		Ball and socket	✓	Saddle		1			1
Type of joint	'Tick'												
Hinge													
Ball and socket	✓												
Saddle													
(c) (i)	Name the component of fitness that can be defined as, 'being able to contract the muscles with speed and force in one explosive act.' • Power 1x1 mark	1			1								
(ii)	Explain why weight training can improve the performance of a sprinter. (AO2 2 marks) maximum of 1 for adaptation • improves (muscular) strength • Improves muscular endurance • Improves (muscular) power • Increases muscle bulk or mass or size • Improves muscle tone • Can be used as part of a recovery programme from injury • Improves flexibility 1 mark for the effect on performance e.g. 'improvement of speed allows me run faster in the race'		2		2								
(iii)	Identify one factor that determines the main energy system used during a 100m race? (2 marks AO1) • Intensity • Duration	1			1								

Question	Mark scheme	AO1	AO2	AO3	Total						
2 (a)	The DVD shows individuals taking part in swimming for health benefits. Identify the long term social, mental and physical benefits of exercise: (give one examples of each) (AO1 3marks) <table><tr><td></td><td>Example</td></tr><tr><td>Social Mental</td><td> - meeting people - making friends - improved confidence - relief of stress/tension and <i>stress related illness</i> </td></tr><tr><td>Physical</td><td> - losing weight - improved posture - improved <i>body shape</i> </td></tr></table>		Example	Social Mental	- meeting people - making friends - improved confidence - relief of stress/tension and <i>stress related illness</i>	Physical	- losing weight - improved posture - improved <i>body shape</i>	3			3
	Example										
Social Mental	- meeting people - making friends - improved confidence - relief of stress/tension and <i>stress related illness</i>										
Physical	- losing weight - improved posture - improved <i>body shape</i>										
(b)	Explain the importance of fitness testing prior to taking part in exercise such as swimming for health reasons - To assess any medical conditions that the individual might have - to show a starting level of fitness - to motivate or set goals - to vary an existing training programme - to monitor improvement - compare to national averages e.g. BMI + Blood Pressure - identify strengths or weaknesses - to re-evaluate needs in training basic explanation for 1 mark max of 2 marks award 2 marks for amplification		4		4						

Question	Mark scheme	AO1	AO2	AO3	Total
(c) (i)	Explain how swimming could help to reduce the percentage of overweight or obese adults. (Ao2 4 marks) • Regular exercise increases your BMR (Basal Metabolic Rate) • You burn up stored fat faster when swimming • Burn calories • Lose weight • Adherence award a maximum of 2 marks for a list award 2 marks for application		4		4
(ii)	Identify two risk to health (other than obesity) that can result from a sedentary lifestyle (AO1 2 marks) • Hypertension • High blood pressure • Atherosclerosis • Poor self esteem • Poor body image (risk to mental health) • Lack of self-confidence • Diabetes • Chronic heart disease • Heart attack • Stroke 2x1 marks	2			2
(iii)	Describe how you could motivate a sedentary individual to follow an active, healthy lifestyle. (3marks AO1) • Give praise / encouragement • Badges (tangible) rewards • Give opportunity to join a team / club • Point out the health / fitness benefits • Show others as role models • Show positive benefits for body image / to look good • To make friends / do as friends do • Variance • Goal setting • Monitoring Award 2 marks for description 3x1 marks or 2x1 + 1	3			3

Question	Mark scheme	AO1	AO2	AO3	Total										
3 (a) (i)	<i>The correct consumption of food is an integral part of improving performance and maintaining energy stores while performing within different sports.</i> <i>Draw a line from the food group to the best description that represents its function. (AO1 3 marks)</i> <table><tr><td>Fats</td><td rowspan="3"></td></tr><tr><td>Carbohydrates</td></tr><tr><td>Protein</td></tr><tr><td></td><td>Tissue growth and repair</td></tr><tr><td></td><td>Energy</td></tr><tr><td></td><td>Energy and insulation</td></tr></table>	Fats		Carbohydrates	Protein		Tissue growth and repair		Energy		Energy and insulation	3			3
Fats															
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(ii)	<i>Compare the typical diet of a weight lifter and a marathon runner in the build up to an event. 4 marks AO2</i> Carbohydrates - Marathon – high level due to intensity, duration. - Predominantly starch based - Carboloading Protein - Weightlifter – high level for muscle growth Fats - Lower for both Vitamins & Minerals - No major difference 2x2 marks Or 4x1 marks		4		4										

Question	Mark scheme	AO1	AO2	AO3	Total
(b)	As a GCSE student you have followed a Personal fitness programme. Evaluate using examples, how you have applied the principles of training to your Personal Fitness Programme. To progress through the levels there needs to be evidence of the ability to write coherent discussion points that relate to the question. These points could take a variety of forms but should be linked and show progression of an argument/point that links application of the principles of training to an increase in fitness.	2		4	6

3	No marks are available in Band 3 for AO1	3-4 marks - Excellent, well-reasoned evaluation of the application of the principles of training within a Personal fitness programme - and improvement in performance due to the use of training principles. - The use of SPOV and FITT is seen throughout using examples to support the work. E.g Progressive overload –I started at 20Kg and increasing to 22Kg once 20Kg become too easy, in this way my muscles adapted to the new work-loads, increasing my strength. - The answer is balanced and detailed and focuses on the key content			
2	2 marks Good knowledge of the application of the principles of training.	2 marks - Good well-reasoned evaluation of the application of the principles of training within a Personal Fitness Programme - The use of SPOV and FITT is seen throughout using some examples to support the work - The answer has some detail and focuses on some areas of content.			
1	1 mark Limited knowledge of the application of principles of training.	1 marks - Limited evaluation of application of the principles of training within a Personal fitness programme. - The use of SPOV is there, but no examples given on how they were used, but there is a link to improvement in performance			
0	0 marks No knowledge of	0 marks Not attempted No analysis			

Question	Mark scheme	AO1	AO2	AO3	Total						
(c)	Identify two adherence strategy that an individual could use to maintain involvement in a training programme. (AO1 2 marks) • Variance • Keep a diary • set realistic goals • share goals with a friend • use fitness testing • have fun • train to music • use competition • the use of apps on a phone There will be many other examples, and these should be credited	2			2						
(d) (i)	Knowledge of results (KR) means that the coach provides information that is specific to the outcome, and Knowledge of performance (KP) is information about what the individual actually did that led to the outcome. Place the examples of KP and KR in the spaces provided below. AO1=4 (4marks) A- You were about 3 inches from your mark. B- You leaned back just a bit too far, so shift your weight forward. C- 68% of your 1st serves were in. D- You need to swing your arms to produce more momentum to your jump. <table><tr><td>Knowledge of Performance</td><td>Knowledge of Results</td></tr><tr><td>b</td><td>a</td></tr><tr><td>d</td><td>c</td></tr></table>	Knowledge of Performance	Knowledge of Results	b	a	d	c	4			4
Knowledge of Performance	Knowledge of Results										
b	a										
d	c										

Question	Mark scheme	AO1	AO2	AO3	Total
(d) (ii)	Assess why knowledge of performance would be beneficial to an elite swimmer. (AO3 3marks) Why - Improvement - Feedback - Analysis Benefits - Technique - Efficiency These are all examples of the feedback involved within KP- which are all in turn beneficial to the swimmer, the value of knowing the above for the elite performer must be shown in answer. At least 1 from each section To gain three marks: award 1 mark for example of 'why' and 2 for the 'benefits'.			3	3

Question	Mark scheme	AO1	AO2	AO3	Total
4 (a)	<i>The 2015 survey revealed:</i> <i>The numbers of young people taking part in sport or physical activity three or more times a week has risen from 40% in 2013 to 48% in 2015.</i> <i>93% of children enjoy physical education</i> <i>Boys (52%) were still more likely than girls (44%) to regularly participate in sport and physical activity, though the figures for both have increased, the gap remains static.</i> Analyse the data above in terms of participation in sports or physical activity between 2013 and 2015? (AO3 2marks) - Participation has increased, and that boys are still more likely to take part in sport and physical activity than girls.			2	2
(b)	Discuss, the strategies that's been used by local authorities and the government to increase involvement of girls in sport and physical activities. Accept any other UK strategies. (AO1 =2, AO3 4 marks) (6 marks)	2		4	6

3	No marks are available in Band 3 for AO1	3-4 marks • Excellent, well-reasoned discussion on the strategies, that's been used by local authorities and the government to increase involvement in sport and physical activities within girls. • The discussion provides a variety of strategies with examples. e.g- 1. Target group coaches/leaders e.g WRU 'women's and girl's Game changers' 2. Programming of specific sessions FAW Girls Leagues & Turn Up & Play Centres, 3. School/PE programmes/role of education/Schools sports partnerships e.g AYP officers 4. Use of role models e.g Jade Jones 5. Concessions/cheaper entrance fees/reduced admission rates e.g free admission for u16 6. specialist facilities and equipment/open days/taster session • The use of a wide range of specialist terms is seen throughout the work. • As with a discussion, possible lack of strategies could be also explored. • The answer is balanced and detailed and focuses on the key content
2	2 marks Good knowledge of the Strategies to increase the involvement of girls in sport	2 marks • Good well-reasoned discussion on the strategies, that's been used by local authorities and the government to increase involvement in sport and physical activities within girls. • The discussion provides some strategies with examples. (see band 3 for possible examples) • The use of a wide range of specialist terms is seen throughout the work. • As with a discussion, possible lack of strategies could be also explored. • The answer has some detail and focuses on some areas of content.
1	1 mark Limited knowledge of the strategies to increase the involvement of girls in sport	1 marks • Limited discussion on the strategies, that's been used by local authorities and the government to increase involvement in sport and physical activities within girls. • The discussion provides strategies but lacks specific examples. (see band 3 for possible examples)
0	0 marks No knowledge of the barriers within disability sports.	0 marks Not attempted No analysis

Question	Mark scheme	AO1	AO2	AO3	Total
(c)	 <i>Hollie Arnold is a Paralympics Javelin gold medallist and a double world champion.</i> Discuss how the following barriers would limit participation in sport for people with disabilities. (AO1=2, AO3 4 marks) (6 marks)	2		4	6

Indicative Content:

Barrier	
Cost	The cost of specialised equipment e.g like throwing frames for athletes, crutches, sport-specific wheelchairs (such as those used in basketball, tennis and rugby) and coaching will impact the opportunities to try new sports.
Access	- A combination of opportunity, provision and esteem / factors that affects a persons ability to take part in sport and recreation. - Availability of facilities/how easy it is to play/ where facilities exist / transport, will impact the opportunities to take part. - Lack of early experiences in sport (this varies between individuals and whether a disability is from birth or acquired later in life) - Lack of understanding and awareness of how to include people with a disability in sport - Limited opportunities and programmes for participation, training and competition.
Role models	- There is a lack of role models within disability sports, although there is an increase. But, compared to able sports role models, there is certainly a disparity. - Women with disabilities have 'double discrimination' in disability sport – being disabled and being a woman. - There are statistically less women with disabilities across the spectrum than men and women are less prone to taking up sport. - In 2005, it was estimated that women make up only about one-third of athletes with disabilities in international competitions. (www.sportanddev.org)

3	No marks are available in Band 3 for AO1	3-4 marks Excellent, well-reasoned discussion on the barriers that limit participation in sport for people with disabilities. The discussion provides a variety of examples of the type of barriers within disability sports. e.g.: The use of a wide range of specialist terms is seen throughout the work. The answer is balanced and detailed and focuses on the key content
2	2 marks Good knowledge of the three barriers within disability sports	2 marks Good well-reasoned discussion on the barriers that limit participation in sport for people with disabilities. The discussion provides some examples of the type of barriers within disability sports. (see band 3 for possible examples) The use of a wide range of specialist terms is seen throughout the work. The answer has some detail and focuses on some areas of content.
1	1 mark Limited knowledge of barriers within disability sports	1 marks Limited discussion on the strategies, that's been used by local authorities and the government to increase involvement in sport and physical activities within girls. The discussion provides strategies but lacks specific examples of barriers within disability sports. (see band 3 for possible examples)
0	0 marks No knowledge of barriers within disability sports	0 marks Not attempted No analysis

Question	Mark scheme	AO1	AO2	AO3	Total																		
(d)	Athletes need to train efficiently and appropriately in order to 'peak' for major competitions. Draw a line from the 3 different training zones to the correct intensity. <table><tr><td>Aerobic</td><td></td><td>85-100%</td></tr><tr><td>Anaerobic</td><td></td><td>60-75%</td></tr><tr><td>Weight loss</td><td></td><td>75-80%</td></tr></table> <table><tr><td>Aerobic</td><td></td><td>85-100%</td></tr><tr><td>Anaerobic</td><td></td><td>60-75%</td></tr><tr><td>Weight loss</td><td></td><td>75-80%</td></tr></table> If anaerobic is incorrect, it is still possible to gain 2 marks for weight loss and Aerobic	Aerobic		85-100%	Anaerobic		60-75%	Weight loss		75-80%	Aerobic		85-100%	Anaerobic		60-75%	Weight loss		75-80%	3			3
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(e)	Discuss how a sport person may have used goal setting in their training programme. (AO1 =2, AO3=4 marks) (6marks) Indicative content: • SMART targets • Show success • Monitor progress • Plan/adapt training • Provide motivation • Provide focus • Increase confidence/control anxiety/feel more in control • Provide mental preparation • Provide adherence • The answer is balanced and detailed and focuses on the key content	2		4	6																		

3	No marks are available in Band 3 for AO1	3-4 marks • Excellent, well-reasoned discussion of how goal setting can be used in a training programme • Explicit links between the effect of goal setting on improving performance e.g- • The answer is balanced and detailed and focuses on the key content
2	2 marks Good knowledge of how goal setting.	2 marks • Good well-reasoned discussion of how goal setting can be used in a training programme. • Clear links between the effect of goal setting on improving performance (see band 3 for examples) • The answer has some detail and focuses on some areas of content.
1	1 mark Limited knowledge of how goal setting	1 marks • Limited discussion of how goal setting can be used in a training programme. • The answer has some limited detail and focuses on some areas of content.
0	0 marks No knowledge of how goal setting	0 marks Not attempted No analysis

Question	Mark scheme	AO1	AO2	AO3	Total
5 (a)	Using sporting examples, explain two characteristics of skilful performance. (AO2 4 marks) 2x2 marks Effective • Being accurate (for example in placing passes where you want them to go) • Being consistent (for example in placing passes where you want them to go) • Control • Confidence Efficient • Good preparation of technique • Good action of technique • Good recovery of technique • Fluent movements • Aesthetically pleasing Responsive • Adaptive • Good anticipation • Good judgment • Appropriate decision-making • Can disguise shots or movements • Can use a range of techniques <i>A skillful Center in Netball for example would illustrate the following:</i> • <i>Move around the whole court, well balanced and with fluent movements and footwork. Show good posture, speed and reactions.</i> • <i>Select the correct pass at the correct moment and time. Passes will also be refined, precise and effortless.</i> • <i>Have the ability to read the game, by watching opponents' actions.</i> • <i>Play to own strengths and opponent's weaknesses (tactics).</i> • <i>Appear to move effortlessly and carry out actions with ease and without thinking.</i> • <i>Perform a wide variety of skills and shots.</i>		4		4

Question	Mark scheme	AO1	AO2	AO3	Total								
(b)	A free kick in football has been placed on the open/closed continuum below Open ←—————↓————→ Closed Justify why taking a free kick in a football match has been placed at this point on the continuum. (AO2 3 marks) • These skills take place in a stable, predictable environment and the performer knows exactly what to do and when. • Skills are not affected by the environment and movements follow set patterns and have a clear beginning and end. • The skills tend to be self-paced.		3		3								
(c) (i)	Identify one characteristic of an individual within each stage of learning (AO1 3 marks) Award 1 mark per stage <table border="1"><thead><tr><th>Stage of learning</th><th>Characteristics</th></tr></thead><tbody><tr><td>Cognitive</td><td>Inconsistent, makes mistakes</td></tr><tr><td>Associative</td><td>Understands, becoming consistent</td></tr><tr><td>Autonomous</td><td>Consistent and effective.</td></tr></tbody></table>	Stage of learning	Characteristics	Cognitive	Inconsistent, makes mistakes	Associative	Understands, becoming consistent	Autonomous	Consistent and effective.	3			3
Stage of learning	Characteristics												
Cognitive	Inconsistent, makes mistakes												
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Autonomous	Consistent and effective.												

(ii)	Explain how guidance is used by coaches, for performers in the cognitive and autonomous stages of learning. (AO2 - 4 marks) 2x2 marks: looking for what and why per stage • Mechanical guidance involves the use of equipment to help support the learner and shape the skill. • And is best used during the cognitive stage of learning. • As it helps the performer learn a movement whilst building confidence and getting a sense of how it should feel. • Manual guidance uses physical support and is best used with competent performers during the autonomous stage of learning. • As it gives kinesthetic awareness and confidence to the learner. • Verbal Guidance cognitive simple and generic • Autonomous technical and specific • Visual Guidance cognitive intro to movement never seen • Automotive analysis of movement		4		4
(iii)	Discuss how the use of technology could benefit coaches(AO1 = 2 AO3 4 mark) (6 marks) Indicative content How and why does the coach use technology? • Objective data • Information gathered on: individuals, team, and opposition. • Speeds up feedback • Specific focus on training sessions and game tactics • Identification of strengths/ weaknesses <i>e.g. tailor training programmes</i> • Video analysis has the advantage of slow motion, split screens and freeze frame features to enhance demonstration analysis-.gps data, data from drones • Such technologies can be used as demonstrations for learners	2		4	6

	• Video can be used to create and gather data that helps to analyse individual performances. Linked to computer software, this data can be presented in a variety of ways to identify areas for improvement, to provide feedback and to monitor progress over time. • Gives knowledge of the body – Heart Rate/training zones/instant feedback/GPS • Improves safety e.g. helmets – longevity of players • Rehabilitation • Training equipment – get the best out of players/new training equipment				
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3	No marks are available in Band 3 for AO1	3-4marks • Excellent, well-reasoned discussion of how the use of technology could benefit coaches. The answer is balanced and detailed and focuses on the key content
2	2 marks Good knowledge of how technology could benefit coaches	2 marks • Good well-reasoned discussion of how the use of technology could benefit coaches. The answer has some detail and focuses on some areas of content.
1	1 mark Limited knowledge of the use of technology could benefit coaches.	1 marks • Limited discussion of how the use of technology could benefit coaches.. The answer has some limited detail and focuses on some areas of content.
0	0 marks No knowledge of how the use of technology could benefit coaches	0 marks Not attempted No analysis

Question	Mark scheme	AO1	AO2	AO3	Total														
(d)	Identify four types of funding available for elite (autonomous) athletes. AO1 (4 marks) <table><tr><td>1. gate receipts/money from paying spectators</td></tr><tr><td>2. selling advertising space to companies around the pitch or on clothing</td></tr><tr><td>3. endorsement</td></tr><tr><td>4. media funding/TV money/pay per view TV</td></tr><tr><td>5. merchandising/club shops/selling club shirts</td></tr><tr><td>6. club lotteries</td></tr><tr><td>7. hiring facilities for corporate or entertainment</td></tr><tr><td>8. selling players</td></tr><tr><td>9. private investors e.g. family member/floating on stock market/becoming a PLC/shareholders</td></tr><tr><td>10 prize money</td></tr><tr><td>11. Charity</td></tr><tr><td>12. Local Authorities</td></tr><tr><td>13. Government</td></tr><tr><td>14. Sponsorship</td></tr></table> 4x1 mark	1. gate receipts/money from paying spectators	2. selling advertising space to companies around the pitch or on clothing	3. endorsement	4. media funding/TV money/pay per view TV	5. merchandising/club shops/selling club shirts	6. club lotteries	7. hiring facilities for corporate or entertainment	8. selling players	9. private investors e.g. family member/floating on stock market/becoming a PLC/shareholders	10 prize money	11. Charity	12. Local Authorities	13. Government	14. Sponsorship	4			4
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