



GCSE MARKING SCHEME

SUMMER 2019

**PHYSICAL EDUCATION - UNIT 1
FULL COURSE
C550U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2019 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.

GCSE PHYSICAL EDUCATION FULL COURSE

SUMMER 2019 MARK SCHEME

Question	Mark scheme	AO1	AO2	AO3	Total				
1. (a) (i)	<table border="1"> <tr> <td>Name the type of joint at A</td> <td>Name of muscle at B</td> </tr> <tr> <td>Ball and socket</td> <td>Biceps</td> </tr> </table>	Name the type of joint at A	Name of muscle at B	Ball and socket	Biceps	2			2
Name the type of joint at A	Name of muscle at B								
Ball and socket	Biceps								
(a) (ii)	<p>Many types of movement can occur at the hip joint (C). Identify two of these movements, giving specific sporting examples to justify your choice. Complete the table below.</p> <p>Accept any valid example Rotation – twisting when throwing discus etc. Flexion – forwards action when kicking etc. Extension – back leg in the splits etc. Abduction - cartwheel Adduction – final step in jav</p>	2	2		4				
(b) (i)	<p>Define the terms power and co-ordination</p> <p>Award 2 marks for Power -The ability to perform strength movements quickly /speed x strength Co-ordination -Ability to use 2 or more body parts together</p>	2			2				
(b) (ii)	<p>Explain how the components of power and coordination are used in sports such as basketball.</p> <p>2x1 Award 2 marks for appropriate explanations</p> <p>E.g, Power when jumping for an interception /jump shot Co-ordination when catching the ball</p>		2		2				
(b) (iii)	<p>Identify and explain one other component of fitness that can be used in a team game</p> <p>Award 1 mark for identification of component Award 1 mark for explanation of how the component is used</p>	1	1		2				

Question	Mark scheme	AO1	AO2	AO3	Total
(c)	<p>Evaluate how the setting of SMART targets can impact upon the well-being and performance of a sports person.</p> <p>Indicative content Evaluation of Specific Measurable Achievable / Agreed Realistic Timed</p> <p>Accept other relevant terminology within acronym</p>	2		4	6

Band	AO1 2 marks	AO3 4 marks
3	No marks awarded	<p>4 marks</p> <p>Excellent, well reasoned evaluation of all th SMART targets and the impact upon the well-being and performance of a sport person</p>
2	<p>2 marks</p> <p>Accurate identification of any 3 SMART targets</p>	<p>2-3 marks</p> <p>Good evaluation of most SMART targets and the impact or the well-being and performance of a sportsperson.</p> <p>At the bottom of this band they may have only used well-being OR performance.</p>
1	<p>1 mark</p> <p>Accurate identification of any 2 SMART targets</p>	<p>1 mark</p> <p>Limited evaluation of the impact of the well being OR performance of a sportsperson.</p> <p>1 or 2 Smart targets may be evaluated.</p>
0	<p>0 marks</p> <p>No accurate identification of the SMART targets.</p>	<p>0 marks</p> <p>Not attempted No analysis</p>

Question	Mark scheme	AO1	AO2	AO3	Total
(d)	<p>Explain why it is important for a sports performer to monitor their fitness levels</p> <p>Award 2 marks for</p> <ul style="list-style-type: none"> Identifying strengths and weaknesses Baseline Current level of fitness Improvement Comparison Motivations Monitor progress Check training programme is working ID health problems 		2		2
(e)	<p>Fitness can be described as:</p> <p>Award 1 mark for</p> <p>The ability to meet the demands of the environment.</p>	1			1
		10	7	4	

Question	Mark scheme	AO1	AO2	AO3	Total
2. (a) (i)	<p>Justify the decision to place passing at point A on the continuum above</p> <p>Award 1 mark for theory plus 1 mark for application</p> <p>The skill is unpredictable Can be affected by the environment <i>Linked to passing...</i> e.g. unsure where the defenders will go weather could change play etc.</p>		2		2
(a) (ii)	<p>Describe what is meant by a closed skill. Use a sporting example to explain your answer.</p> <p>Award 1 mark for description and 1- mark explanation Closed skill is predictable/repeatable/ not affected by the environment. E.g. Forward roll</p>	1	1		2
(b)	<p>Analyse how the long-term effects of regular training could improve your performance in a team game of your choice.</p> <p>Indicative content Adaptations to the body systems Increase in bone density Increased elasticity of muscles Muscular hypertrophy Cardiac hypertrophy Increased energy systems Increased stroke volume Decreased RHR Blood pressure improvement Decreased breathing frequency Increased vital capacity Component of fitness can be credited Must relate to performance to gain band 3 AO3</p>	2		4	6

Band	AO1 2 marks	AO3 4 marks
3	No marks awarded in band 3	<p>4 marks</p> <p>Excellent analysis of how the long-term effects of training improve performance.</p> <p>At least 3 effects analysed.</p> <p>Must relate to performance.</p>
2	<p>2 marks</p> <p>2 long term effects of training described</p>	<p>2-3 marks</p> <p>Good analysis of how the long-term effects of training improve performance.</p> <p>At least 2 effects analysed.</p> <p>At the bottom of this band they may not relate to performance but have still provided a good analysis.</p>
1	<p>1 mark</p> <p>1 long term effect of training described</p>	<p>1 mark</p> <p>Limited analysis of the long term effects of training.</p> <p>Maybe one area analysed.</p>
0	<p>0 mark</p> <p>No attempt of description</p>	<p>0 marks</p> <p>Not attempted Not analysed</p>

Question	Mark scheme	AO1	AO2	AO3	Total						
2. (c) (i)	<p>Complete the table below by naming an appropriate fitness test for each of the components of fitness.</p> <p>Award 3 marks for appropriate tests Muscular Endurance – press up test with time/ sit up test with time etc Strength – Hand grip/ 1 rep max Agility – Illinois agility run</p>	3			3						
(ii)	<p>Name one other method, apart from fitness testing, that could be used to monitor fitness levels.</p> <p>Award 1 mark for Blood pressure levels Blood tests Resting Heart rate Health screening Questionnaires Fitbit etc Diary Heart rates</p>	1			1						
(d)	<p>A player in a team sport such as hockey will use both anaerobic and aerobic energy systems. Explain how they are used giving specific answers to support your answer.</p> <p>Award 2x2 marks for explanations</p> <p>May use percentages of heart rate to help explain</p> <table border="1"> <thead> <tr> <th>Energy system</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>Aerobic</td> <td>Jogging back to position. Tracking the ball Lasting the match Etc...</td> </tr> <tr> <td>Anaerobic</td> <td>High intensity work such as short sprint/ passing/shooting OR <u>Lactic acid</u> Counter Attack</td> </tr> </tbody> </table> <p>Aerobic Eg. Jogging (1) back to position in football (1)</p> <p>Anaerobic Eg sprinting (1) to chase a pass (1)</p>	Energy system	Explanation	Aerobic	Jogging back to position. Tracking the ball Lasting the match Etc...	Anaerobic	High intensity work such as short sprint/ passing/shooting OR <u>Lactic acid</u> Counter Attack		4		4
Energy system	Explanation										
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Question	Mark scheme	AO1	AO2	AO3	Total
(e)	<p>Explain using examples, the terms 'varied' and 'fixed practice'</p> <p>Award 2x2 marks for explanations</p> <p>Varied – practice in different situations E.g. passing in netball etc</p> <p>Fixed – practice under the same conditions E.g. vault in gym etc</p>		4		4
		7	11	4	

Question	Mark scheme	AO1	AO2	AO3	Total
3. (a)	<p>The media plays an essential role in the commercialisation of elite sport. Discuss.</p> <p>Indicative content</p> <p>Links between media, advertising and sport Media gives (positives)</p> <ul style="list-style-type: none"> • Sport high profile • Positive role models • Generate revenue for sport • Showcase values of sport • Set high standards • Increase spectators <p>Negs</p> <ul style="list-style-type: none"> • Intrusion on privacy (must be linked to sport) • Showcase negative behaviours on pitch • Neg role models • Undermine officials • Schedule dictation • Reduce spectators therefore mass participation • Celebrate success • Minority sports less coverage less revenue • Win at all costs links <p>Other roles of the media /social media</p> <ul style="list-style-type: none"> • Inform • Educate • Advertise • Entertain 	2		4	6

Band	AO1 2 marks	AO3 4 marks
3	No marks awarded in band 3	<p>4 marks</p> <p>Excellent discussion about the role of the media</p> <p>Excellent discussion of the effect media has on the commercialisation of elite sport and their interdependence with use of examples</p> <p>Candidates show excellent discussion about the positives and negatives of the media.</p>
2	<p>2 marks</p> <p>Identification of 2 roles or effects of the media</p>	<p>2-3 marks</p> <p>Good discussion about the role of the media</p> <p>Good discussion of the effect media has on the commercialisation of elite sport and their interdependence with some examples</p> <p>Discussion of either the positives or negatives of the media may be at the bottom of this band.</p>
1	<p>1 mark</p> <p>Identification of 1 role or effect of the media</p>	<p>1-2 marks</p> <p>Limited discussion about the role of the media and the effect media has on the commercialisation of sport.</p> <p>Some reference to either positives or negatives</p>
0	<p>0 marks</p> <p>No identification</p>	<p>0 marks</p> <p>Not attempted No discussion</p>

Question	Mark scheme	AO1	AO2	AO3	Total
(b)	<p>Using examples from sport, explain the terms sportsmanship and gamesmanship</p> <p>Award 2 x2 marks for explanations 1 for description and 1 for example</p> <p>Sportsmanship – playing in the spirit of the game not just following the rules/ fair play/ respect Eg. Kicking the ball out during an injury etc</p> <p>Gamesmanship – Bending the rules without breaking them to gain an advantage E.g. time wasting etc</p>	2	2		4
(c) (i)	<p>Compare the characteristics of a skilled performer to those of an unskilled performer.</p> <p>Award 1 mark for the characteristic and one for the matching comparison.</p> <p>Skilled Consistent Controlled Accurate Technical model Fluent Good decision making Higher fitness level Aesthetic Confident More focused Less feedback needed Etc</p> <p>Must have a direct comparison of the unskilled for the marks.</p>		4		4

Question	Mark scheme	AO1	AO2	AO3	Total
(c) (ii)	<p>Discuss how feedback could differ between the cognitive and autonomous stages of learning. Award 2 x 2 marks for each stage</p> <p>Explanation Cognitive – makes lots of mistakes, introduction to a skill Feedback Reinforce through positive feedback Lots of support from coach Needs visual feedback to see the action Needs verbal feedback to correct errors Extrinsic feedback essential. Unable to use intrinsic feedback/ have not got a kinaesthetic feeling</p> <p>Explanation Autonomous – without conscious thought Feedback Can cope with negative feedback Rely on intrinsic feedback Feedback can be detailed Video analysis may be used. KOP/ KOR reference 1 can be given for explanation of the stage of learning but is not essential.</p> <p><i>May use the content below as a mid-point and should be credited.</i></p> <p>Associative – understand the requirements of the skill, development Intrinsic feedback can be used Verbal feedback can be given to reinforce skills/ refine K of R and K of P can be used in this stage</p>		2	2	4

Question	Mark scheme	AO1	AO2	AO3	Total								
(c) (iii)	<p>Explain two reasons why a warm up would benefit an endurance athlete. Award 2x1 marks for</p> <p>Raising the body temp to aid muscles contraction Increasing elasticity of muscles to reduce the chances of injury Increase ROM to improve their leg stride in a race Get mentally prepared to increase their race awareness / to get in the zone Focus to increase their tactics etc Motivation to be ready for their race/training. Accept any relevant response, they must have the to for the mark</p> <p>If 2 benefits stated then 1 mark max.</p>		2		2								
(d)	<p>Explain how a performer can speed up recovery after being involved in intense physical activity.</p> <p>Award 2 marks for Ice baths With appropriate explanation Massage With appropriate explanation Foam rollers With appropriate explanation Cool down With appropriate explanation Sports drinks/nutrition With appropriate explanation</p> <p>Sub max 1 for a list</p>		2		2								
(e) (i)	<p>Match the functions of nutrients in the list below to the appropriate nutrients in the table.</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Nutrient</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>Protein</td> <td>Growth and repair (B)</td> </tr> <tr> <td>Carbohydrate</td> <td>Energy (C)</td> </tr> <tr> <td>Water</td> <td>Hydration (A)</td> </tr> </tbody> </table>	Nutrient	Function	Protein	Growth and repair (B)	Carbohydrate	Energy (C)	Water	Hydration (A)	3			3
Nutrient	Function												
Protein	Growth and repair (B)												
Carbohydrate	Energy (C)												
Water	Hydration (A)												
(e) (ii)	<p>Place these structures in the boxes in the correct order of air flow.</p> <p>Award marks for the following order, 1 mark each Bronchus Bronchioles Alveoli</p>	3			3								

Question	Mark scheme	AO1	AO2	AO3	Total
(e) (iii)	<p>Match the lung volumes to the correct values during moderate exercise.</p> <p>Award 1 mark each for Tidal volume - 3L Minute ventilation – 90L Breathing frequency – 30 breaths/min</p>	3			3
		13	12	6	

Question	Mark scheme	AO1	AO2	AO3	Total
4. (a)	<p>Classify the type of movement at points A and B in the image above.</p> <p>Award marks for Flexion – A Extension - B</p>			2	2
(b)	<p>Identify the plane of movement of the footballer's right knee (A)</p> <p>Sagittal</p>	1			1
(c)	<p>Identify and explain a fitness training method that would be suitable for a games player.</p> <p>Award 1 mark for identification Interval Plyometrics Weight training Continuous Circuits Fartlek</p> <p>Award 2 marks for explanation Continuous – to ensure work rate remains the same throughout the whole game Interval - the player needs to work at near max pace e.g. pass then move, then has a short rest etc.</p>	1	2		3

Question	Mark scheme	AO1	AO2	AO3	Total
(d)	<p>Discuss the factors that might affect participation in physical activity of individuals in the following target groups.</p> <p>Indicative content</p> <p>Increased involvement</p> <p>Gender Role models More choice of classes Female only classes/gyms Stereotypes smashed Increased of females in high power roles Gender specific campaigns e.g. 'this girl can'</p> <p>Negatives may be drawn upon Stereotypes still present Discrimination Lack of leadership roles for females etc. Funding issues</p> <p>Disability Paralympics Role models Increased access Improved facilities Improved education</p> <p>Negatives may be drawn upon Stereotypes Discrimination Lack of transport to facilities etc. Funding issues</p>	2		6	8

Band	AO1 2 marks	AO3 6 marks
3	No marks	<p>5-6 marks</p> <p>Excellent discussion of both disabled and gender related factors and how they will affect participation.</p> <p>Both positives and negatives drawn upon.</p> <p>The answer is detailed and addresses positives and negatives, with good use of eg.s</p>
2	<p>2 marks</p> <p>Identification of 1 factor in each area</p>	<p>3-4 marks</p> <p>Good discussion of both disabled and gender related factors and how they will affect participation</p> <p>At the bottom of this band the candidate may show good knowledge of one target group. Some use of eg's.</p>
1	<p>1 mark</p> <p>Identifcation of 1 factor.</p>	<p>1-2 marks</p> <p>Limited discussion of both disabled and gender related factors and how they will affect participation.</p> <p>Candidates may show limited knowledge of one target group.</p>
0		

Question	Mark scheme	AO1	AO2	AO3	Total
(e) (i)	<p>Levers in our body are formed from bones, joints and muscles. Complete the boxes below.</p> <p>Award 3 marks for effort load fulcrum</p> <p>(Going clockwise from the top)</p>	3			3
(e) (ii)	<p>Explain the antagonistic muscle action occurring around the elbow joint.</p> <p>Award marks for One muscle contracts The other relaxes to allow movement to occur Use of muscles to explain fine.</p>		2		2
(e) (iii)	<p>Identify the type of muscle contraction occurring in the upward phase of the bicep curl</p> <p>Award 1 mark for Concentric contraction (1)</p>	1			1
(f) (i)	<p>Name the bones in Figure 3.</p> <p>A = Radius B = Ulna C = humerus</p>	3			3
(f) (ii)	<p>Outline a function of flat bones</p> <p>Protection</p>	1			1
		12	4	8	

Question	Mark scheme	A01	A02	A03	Total
5. (a)	<p>The graph above shows the heart rate of a 16 year old sprinter during a training session.</p> <p>Using your knowledge of training zones and training methods, analyse what has happened to the heart rate (in the graph above).</p> <p>Candidate must relate to the data for full marks</p> <p>Award marks for Training method - interval /high intensity/ Can tell because of variation/ work rest work rest. Anaerobic activity 80% of MHR Over 180 bpm MHR 220-age</p> <p>Data may discuss the training zone percentages related to the graph and should be credited.</p> <p>4 x 1</p>			4	4
(b)	<p>State the percentage of maximum heart rate required for an athlete to be working in the aerobic training zone.</p> <p>60-80%</p>	1			1
(c)	<p>Identify the average cardiac output during moderate exercise for a healthy individual.</p> <p>24L/min</p>	1			1
(d)	<p>Explain two possible consequences of leading a sedentary lifestyle.</p> <p>Award 2x2 for explanation</p> <p>Hypertension therefore would be a risk of heart attack Obesity therefore a risk of diabetes/CHD/ atherosclerosis Poor self-esteem as you are not happy with your body/self Body image and self-confidence reduces therefore depression Heart disease due to build-up of cholesterol Osteoporosis lowering bone density therefore more injuries in later life Etc</p> <p>The therefore is essential or SM 2</p>	2	2		4

Question	Mark scheme	AO1	AO2	AO3	Total
(e)	<p>Having sufficient sleep is a positive lifestyle choice. Describe two other positive lifestyle choices.</p> <p>Award 2x1 marks Regular exercise Balanced diet Time for relaxation Avoiding drugs and alcohol</p> <p>Can be written in negative</p>	2			2
(f) (i)	<p>Describe two principles of training.</p> <p>Award 2x1 mark for each correct principle</p> <p>Specificity Progression Overload- Intensity /Frequency / Duration Variance - Reversibility</p>	2			2
(f) (ii)	<p>Explain using examples, how these principles can be used to improve the fitness of a sports performer.</p> <p>No mark for naming award 1 mark for explanation and 1 for the sporting e.g.</p> <p>Specificity Training needs to specific to the sport /sportsperson e.g.</p> <p>Progression increase exercise gradually e.g. Start at a level suitable for the fitness level e.g.</p> <p>Overload Intensity – increase the intensity e.g. Frequency - increase the amount of times exercise is undertaken per week e.g. Duration – increase the length of time e.g.</p> <p>Variance -ensure variation of training occurs to avoid boredom and increase motivation to continue, e.g.</p> <p>Credit reversibility if relevant to the question asked</p>		4		4

Question	Mark scheme	AO1	AO2	AO3	Total
(g)	<p>Discuss the advantages and disadvantages of the use of technology for officials in sport.</p> <p>Award 1 mark for stating the technology and the assessment of how it helps</p> <p>For full marks candidates must give both advantages and disadvantages</p> <p>Officials positive Communicating Decision making Scoring Time keeping</p> <p>Negative Undermines decision making Expensive</p> <p>Accept relevant examples</p> <p>SM of 2 for one side only A list of indicative below SM 2</p>			4	4
		8	6	8	

Assessment Objectives

	Q1	Q2	Q3	Q4	Q5	TOTAL	Overall Weighting
AO1	10	7	13	12	8	50	25%
AO2	7	11	12	4	6	40	20%
AO3	4	4	6	8	8	30	15%
Total	21	22	31	24	22	120	100%