



GCSE MARKING SCHEME

SUMMER 2019

**PHYSICAL EDUCATION - UNIT 1
SHORT COURSE
3555U10-1**

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 - UNIT 1 SHORT COURSE

SUMMER 2019 MARK SCHEME

Question	Mark scheme	AO1	AO2	AO3	Total
1. (a) (i)	<p>Identify the component of fitness shown by the high jumper in the image above.</p> <p>Award 1 mark for flexibility</p>	1			1
(ii)	<p>Justify your reasons for choosing the component identified in (a) (i) above.</p> <p>Award marks for Flexibility is defined as a range of limb movement around a joint (1) Increased flexibility enhances the performance of the high jumper when clearing the bar (1). Greater efficiency is evident in the image in terms of the obvious bar clearance (1). Flexibility of the jumper can be seen in the aesthetic body lines and use of sound technique (1).</p> <p>Max 1 mark for justification of wrong component identified in 1ai</p>		3		3
(iii)	<p>Name a recognised fitness test to measure the component of fitness identified in (a) (i) above.</p> <p>Award 1 mark for any recognised test</p> <p>e.g. Sit and Reach Test or Shoulder Hyperextension Test</p>	1			1
(iv)	<p>Discuss the reasons for using a variety of methods to monitor health and fitness levels.</p> <p>There may be many possible answers here. Credit any acceptable responses. 3x1 marks to be awarded examples being;</p> <ul style="list-style-type: none"> • To monitor strengths • To monitor weaknesses • To monitor current health status • To reach a baseline assessment • To assess match fitness and / or recovery from injury • To compare to norms • To compare to other performers • To assess the success or otherwise of training • To assess fitness in preparation for "peaking" • Need a variety to measure different aspects 			3	3

Question	Mark scheme	AO1	AO2	AO3	Total
(v)	<p>Explain why plyometric training could be a suitable method of training for a high jumper.</p> <p>Award marks for Plyometrics is a method of training combining speed/strength which develops power / explosiveness High jump requires these (1) Plyometrics uses an eccentric muscular contraction followed by a concentric muscle contraction to create a maximum force (stretch shortening phase) (1). It involves jumping, bounding, hopping exercises (1). Can be a demanding method of training requiring Strength and Endurance (1).</p>	1	2		3
(b) (i)	<p>Identify three functions of the human skeletal system.</p> <p>Award marks for Any 3 answers from support/structure/maintain body shape, protection, movement / locomotion, production of red blood cells.</p>	3			3
(ii)	<p>Explain why a high jumper would need to warm up before competing.</p> <p>Award 3 marks for</p> <ul style="list-style-type: none"> • To gradually prepare body systems, muscles and joints • To gradually enable the body to adapt to the demands of working harder. • To reduce the risk of injury / stiffness • To mentally prepare the athlete for the activity. • Warm up creates a link between resting and main activity. • Stretching and light aerobic work is another way of saying many of the points above !. • In order to increase range of movements around joints therefore more effective. • If the intensity of the warm up is progressive and linked directly to the activity performances may be better as a result. <p>Credit any acceptable response</p>		3		3

Question	Mark scheme	AO1	AO2	AO3	Total
(c)	<p>Draw a line to match the energy system to the correct description.</p> <p>Award 3 marks for</p> <p>AEROBIC: Provides energy over a long period of time</p> <p>CREATINE PHOSPHATE: Supplies energy for about 10 seconds and is used in explosive events.</p> <p>LACTIC ACID: Produces the majority of energy for high intensity activities for up to 1-2 minutes</p>	3			3
Total Q1		9	8	3	20

Question	Mark scheme	AO1	AO2	AO3	Total
2. (a) (i)	<p>Name two fitness components required by the skier in order to perform effectively.</p> <p>Award 2 marks for any reasonable component of fitness</p> <p>E.g. endurance, muscular endurance, power, agility, balance and flexibility.</p>	2			2
(ii)	<p>Define each of the fitness components identified in (a) (i) above</p> <p>The components defined MUST be those identified in 2 (a) (i) above.</p> <p>The definition must be an accepted definition for the two components. Award 2 x1 marks</p>	2			2
(iii)	<p>Using the diagram as a guide, name the circulatory systems identified by completing the table below.</p> <p>Award marks for A= Systemic System and B= Pulmonary System No marks for repetition of systems Accept pulmonary artery</p>	2			2
(b)	<p>Discuss why ski racers would need to train within both the Aerobic and Anaerobic Training Zones.</p> <p>Award marks for developed answers (discuss question) the activity requires the use of a variety of energy systems.</p> <p>Indicative content Training not including work within aerobic and anaerobic zones could affect the performance and effectiveness of the skier.</p> <p>Training below relevant thresholds would also be ineffective.</p> <p>Some answers may be more detailed in terms of physiology and body adaptations. training zones, thresholds and relevant Principles of Training</p> <p>See mark bands below</p>	2		4	6

Question	Mark scheme	AO1	AO2	AO3	Total
(c)	<p>Using specific sporting examples, evaluate how sportspeople could use modern technology in order to improve their performance.</p> <p>Marks available for identifying the technology and its links to improving performance</p> <p>Indicative content</p> <p>EQUIPMENT</p> <ul style="list-style-type: none"> E.G. golf clubs, golf balls, golf trolleys, golf shoes, cricket bats, cricket Pads, footwear. Hitting the ball further/ harder due to technological developments. <p>CLOTHING / FOOTWEAR</p> <ul style="list-style-type: none"> E.G. lightweight, water resistant clothing in many sports. More effective, comfortable, efficient. FOOTWEAR lighter, stronger, made to measure for a variety of sports. <p>APPS</p> <ul style="list-style-type: none"> E.G. tracker devices to record distances ran in sports such as netball, Rugby, association football. Trackman in golf. Activity levels recorded as well as time, distance, work output. Strana in cycling! <p>APPS/ANALYSIS EQUIPMENT</p> <ul style="list-style-type: none"> POST AND PRE MATCH analysis of performances to enable comparisons and enhance performances <p>TRAINING FACILITIES / EQUIPMENT</p> <ul style="list-style-type: none"> E.G 4G surfaces or comparable producing more effective performance. Sport specific data analysis assessing / measuring performance. <p>See mark bands below</p>			4	4

Question	Mark scheme	AO1	AO2	AO3	Total
(d)	<p>Explain how modern technology can help officials in sport</p> <p>Award marks for suitable examples of how modern technology can help officials in sport with appropriate</p> <p>Examples such as:</p> <p>VAR in football: Fairer decisions</p> <p>TMO: remove personality and passion from the decision. Fairer decisions.</p> <p>DRS (cricket): Improved decisions made by officials, supporting and backing up most decisions made by the umpires.</p> <p>Hawkeye: increases objectivity and accuracy of line calls/decisions in tennis.</p> <p>Video Replays(Golf): maintains / enhances the integrity of the game, could lead to law changes, benefits players and officials</p>	1	3		4
Total Q2		9	3	8	20

Question	Mark scheme	AO1	AO2	AO3	Total
3. (a)	<p>Using the data on participation, evaluate the lifestyle choices made by those participating in sport/physical activity</p> <p>The question requires some data. The aspect focussed upon is adherence strategies and lifestyle choices.</p> <p>Indicative Content Health is a state of physical, mental and social/emotional wellbeing High percentage participating in keepfit etc as well as swimming and football Many physical Benefits of being physically active: components of fitness improved, performance benefits e.g. with flexibility, strength, endurance. Body Systems: CV/CR...Musculoskeletal. Joints, blood pressure, BMI, heart related disorders/ conditions. Positive effect on Health Issues: blood pressure, obesity, cholesterol, nutritional issues. Diabetes and stroke avoidance strategies. Improved blood supply to body. Tendons, ligaments and bones become stronger. Improved posture, improved effectiveness / efficiency when performing everyday tasks or physical/sporting activities. Also social and psychological benefits of such activities Low uptake in golf – perceived as having few benefits but does have many of the above</p> <p>See mark bands below</p>	2		4	6

Question	Mark scheme	AO1	AO2	AO3	Total
(b)	<p>Explain possible social benefits of participating in sport/physical activities such as those shown in the data.</p> <p>Health is a state of physical, mental and social/emotional wellbeing</p> <p>Award for explanation of social benefits such as</p> <ul style="list-style-type: none"> Increased confidence Teamwork Fulfilment Challenge Self worth/ respect Fun/enjoyment Increased opportunities <p>Specific examples should be given where possible</p>		4		4
Total Q3		2	4	4	10

Assessment Grid

	AO1	AO2	AO3	Total
Q1	9	8	3	20
Q2	9	3	8	20
Q3	2	4	4	10
Total	20	15	15	50

Performance bands for question 2 (b)

Band	AO1 2 marks	AO3 4 marks
3		<p>4 marks Excellent discussion of why ski racers would need to train within both the Aerobic and Anaerobic Training Zones</p> <p>Answers may be provided in a fluent and reasoned manner.</p> <p>The answer is balanced and measured and covers a variety of relevant and supportive examples</p>
2	<p>2 marks Good knowledge of Aerobic and Anaerobic Training Zones</p>	<p>2-3 marks Good discussion of why ski racers would need to train within both the Aerobic and Anaerobic Training Zones</p> <p>Answers may be provided in a fluent and reasoned manner.</p> <p>The answer is balanced and covers some relevant and supportive examples</p>
1	<p>1 mark Limited knowledge of Aerobic and Anaerobic Training Zones</p>	<p>1 mark Limited discussion of why ski racers would need to train within both the Aerobic and Anaerobic Training Zones</p> <p>The answer lacks balance and covers few relevant and supportive examples</p> <p>Answers tend to be descriptive</p>
0	No knowledge of Aerobic and Anaerobic Training Zones is evident	No evaluation is evident

Performance bands for question 2 (c)

Band	A03 4 marks
3	4 marks Excellent evaluation of technology Both positives and negatives drawn upon. The answer is balanced and detailed, with strong links to improvement in performance
2	2-3 marks Good evaluation of technology Both positives and negatives drawn upon. The answer is balanced, with links to improvement in performance
1	1 mark Limited evaluation of technology the answer is largely descriptive with few links to improvement in performance
0	No evaluation is evident

Performance bands for question 3 (a)

Band	AO1 2 mark	AO3 4 marks
3		<p>4 marks Excellent evaluation of the lifestyle choices made by those participating in sport/physical activity</p> <p>Excellent use of the graphical and statistical data with valid conclusions drawn.</p> <p>The answer is balanced and measured and covers a variety of benefits with possible relevant and supportive examples</p>
2	<p>2 marks Good knowledge of the lifestyle choices made by those participating in sport/physical activity</p>	<p>2-3 marks Good evaluation of the lifestyle choices made by those participating in sport/physical activity</p> <p>Good use of the graphical and statistical data with some valid conclusions drawn.</p> <p>Answer is balanced and may offer positive and negatives aspects of a healthy / non-healthy lifestyle</p>
1	<p>1 mark Limited knowledge of the lifestyle choices made by those participating in sport/physical activity</p>	<p>1 mark Limited evaluation of the lifestyle choices made by those participating in sport/physical activity</p> <p>Limited use of the data provided. Few, if any, conclusions drawn.</p> <p>Content is superficial and descriptive.</p> <p>Answers may read as a list with some modest amplification.</p>
0	No knowledge of the lifestyle choices made by those participating in sport/physical activity	No evaluation is evident