

GCSE

WJEC Eduqas GCSE in PHYSICAL EDUCATION (SHORT COURSE)

ACCREDITED BY OFQUAL

SAMPLE ASSESSMENT MATERIALS

Teaching from 2017



For teaching from 2017
For award from 2018

GCSE (9-1)
PHYSICAL EDUCATION
(Short Course)

SAMPLE ASSESSMENT
MATERIALS

Contents

	Page
COMPONENT 1: Introduction to Physical Education	
Question paper	5
Mark scheme	19

Candidate Name	Centre Number				Candidate Number			
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**GCSE PHYSICAL EDUCATION
(Short Course)**

COMPONENT 1

**INTRODUCTION TO PHYSICAL
EDUCATION**

SAMPLE ASSESSMENT MATERIALS

1 hour



INFORMATION FOR CANDIDATES

Diagrams, charts and graphs can be used to support answers when they are appropriate.

Mark allocations are shown in brackets.

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page. Write your answers in the spaces provided in this booklet.

Use black ink or black ball-point pen.

Do not use pencil or gel pen.

Do not use correction fluid.

Question	Maximum mark	Marks awarded
1a	6	
1b	2	
2a	9	
2b	7	
2c	3	
2d	2	
3a	4	
3b	4	
3c	4	
3d	6	
4a	5	
4b	8	
Total	60	

ADDITIONAL MATERIALS

You may use a calculator in this examination.

Answer **all** questions

1. Tennis is a dynamic activity that requires specific components of fitness including speed and flexibility.



- (a) (i) Define the term speed and state why speed is needed for a tennis player. [2]

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- (ii) Describe **one** method of training that could be used to develop speed. [2]

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- (iii) What is flexibility and why is flexibility needed to perform the tennis serve? [2]

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(b) Identify which of the following fibre types a tennis player would need to:

- (i) play a match that lasts for three hours [1]
- (ii) sprint to the ball. [1]

Tick **one** box only for each fibre type.

Fibre type	Play a match that lasts for three hours	Sprint to the ball
Type 1		
Type 11a		

Total 8

The 400m is an athletics event that requires athletes to run at almost full speed for one lap of a track.

2. (a) (i) Two energy systems are mainly used by athletes competing in the 400m.

At which point in a 400m race would each of the systems mainly be used? Justify your answer.

[4]

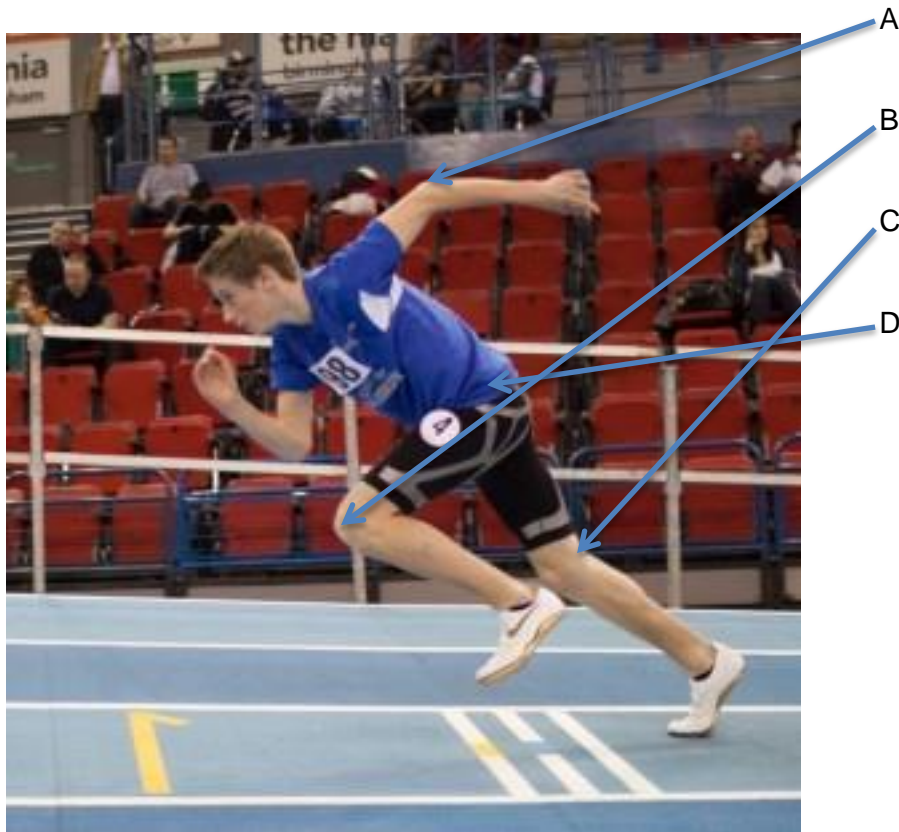
	Point in the race	Justification
ATP-PC		
Anaerobic		

- (ii) Describe what is meant by the term anaerobic threshold and explain why an understanding of the anaerobic threshold is important to 400m athletes. [5]

[5]

This image shows a full page of white paper with horizontal dashed lines, typical of primary school handwriting practice paper. The lines are evenly spaced and run across the entire width of the page. There are no margins, text, or other markings present.

The following is a still photograph of a 400m runner.



(b) (i) Identify the lever at A. Tick **one** box only.

[1]

- | | |
|-----------------------|--------------------------|
| 1 st Order | <input type="checkbox"/> |
| 2 nd Order | <input type="checkbox"/> |
| 3 rd Order | <input type="checkbox"/> |
| 4 th Order | <input type="checkbox"/> |

- (ii) Classify the synovial joint at D (hip). Tick **one** box only. [1]

Hinge

☐

Pivot

☐

Ball and socket

☐

Gliding

☐

- (iii) Identify the type of joint at the knee and analyse the movements that are taking place at B and C. [5]

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- (c) When taking part in sport the body can move through different planes.

Name **one** sporting example of movement on the **sagittal plane**.
Justify your answer.

[3]

Example

Justification.....

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Muscles work in pairs, when one contracts (agonist) the other relaxes (antagonist).



Using the image above, identify

- (d) (i) The agonistic muscle group causing contraction of the knee. [1]

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- (ii) The antagonistic muscle group that relaxes to allow contraction of the knee. [1]

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Total 21

3. A balanced diet is important for both sporting performance and for a healthy lifestyle.

- (a) Explain why carbohydrates would probably be the main energy source used during a hockey match. [4]

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Drinking fluids (rehydration) before during and after participation in intense exercise such as hockey is very important.

- (b) Evaluate why rehydration is important before, during and after participation in intense physical activity. [4]

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Total 18

4. (a) Define the terms mental well-being and social well-being and explain how taking part in regular physical activity can help a person's mental well-being and social well-being. Give examples to support your answer. [5]

[illegible]

Many people undertake a training programme to help improve their fitness. Read the following fitness testing data from before and after a 12 week training programme completed by a 16 year old female. During the training period she exercised at least four times a week and ate what would be considered a healthy diet.

Component	Week 1	Week 12
Multi Stage Fitness Test	9	11
Blood Pressure	140/90mmHg	120/80mmHg
% Body Fat	25	23
Resting Heart Rate	74	68

- (b) Evaluate why these changes occurred during the 12 week training programme.

[8]

[illegible]

[illegible]

Total 13

COMPONENT 1

MARK SCHEME

Guidance for examiners

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision made.

Banded mark schemes

For band marked questions mark schemes are in two parts.

Part 1 is advice on the indicative content that suggests the range of concepts, facts, issues and arguments which may be included in the learner's answers. These can be used to assess the quality of the learner's response.

Part 2 is an assessment grid advising bands and associated marks that should be given to responses which demonstrate the qualities needed in AO1, AO2 and AO3. Where a response is not creditworthy or not attempted it is indicated on the grid as mark band zero.

Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied.

This is done as a two stage process.

Stage 1 – Deciding on the band

Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Stage 2 – Deciding on the mark

During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is also provided for banded mark schemes. Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

Question	Mark Scheme	AO1	AO2	AO3	Total
1 (a) (i)	<p>Define the term speed and state why speed is needed for a tennis player.</p> <p>Award: 1 mark for showing knowledge of speed. 1 mark for linking speed to a tennis serve.</p> <p>Speed</p> <ul style="list-style-type: none"> • knowledge of speed (moving between points in quickest time) (1) • the need to serve with a fast movement to achieve the speed of serve (1) • the need to move quickly to the ball (1) <p>Credit any other appropriate response</p>	2			2
(a) (ii)	<p>Describe one method of training that could be used to develop speed.</p> <p>Award: 1 mark for an appropriate method of training that is linked to the development of speed. 1 mark for the description of the method of training.</p> <p>Description</p> <ul style="list-style-type: none"> • an appropriate method of training including plyometrics, weight training, interval training (1) • reference to the high intensity and short duration needed to improve speed (1) • rest periods in between short high speed activity (1) <p>Credit any other appropriate response</p>	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total
(a) (iii)	<p>What is flexibility and why is flexibility needed to perform the tennis serve?</p> <p>Award: 1 mark for showing an understanding of flexibility. 1 mark for linking flexibility to tennis serve.</p> <p>Description</p> <ul style="list-style-type: none"> • The description should show knowledge of flexibility (range of motion around a joint) (1) • Make the link to the need for flexibility for a long follow through to help with technique (1) and also reduce risk of injury (1) <p>Credit any other appropriate response</p>	2			2
(b) (i) and (ii)	<p>Identify which of the following fibre types a tennis player would need to</p> <p>(i) Play a match that lasts three hours – Type 1 (ii) Sprint to the ball - Type 11a</p>	2			2

Question	Mark Scheme	AO1	AO2	AO3	Total									
2 (a) (i)	<p>At which point in a 400m race would each of the systems mainly be used? Justify your answer.</p> <table><tr><td></td><td>Point in the race</td><td>Justification</td></tr><tr><td>ATP-PC</td><td>Start (1)</td><td>Explosive, short duration (1)</td></tr><tr><td>Anaerobic</td><td>Early to middle (1)</td><td>high intensity after initial burst (1)</td></tr></table> <p>Award: 1 mark identifying where in the race each energy system is used. 1 mark for justifying why it is used at this point in the race.</p> <p>Credit any other appropriate justification</p>		Point in the race	Justification	ATP-PC	Start (1)	Explosive, short duration (1)	Anaerobic	Early to middle (1)	high intensity after initial burst (1)	2	2		4
	Point in the race	Justification												
ATP-PC	Start (1)	Explosive, short duration (1)												
Anaerobic	Early to middle (1)	high intensity after initial burst (1)												
(ii)	<p>Describe what is meant by the term anaerobic threshold and explain why an understanding of the anaerobic threshold is important to 400m athletes.</p> <p>Award 1 mark for knowledge of the anaerobic threshold</p> <ul style="list-style-type: none">the point at which aerobic and anaerobic training zones meet (1) <p>Award: 4 marks for an explanation.</p> <p>Explanation</p> <ul style="list-style-type: none">400m is a high intensity activity which makes huge demands of the body (1) and is largely anaerobic (1)Anaerobic is inefficient so it is in an athlete's interest to want to train to stay in aerobic zone for as long as possible (1)through training close to the anaerobic threshold they can raise threshold (1)stay in the efficient aerobic zone for longer (1) <p>Credit any other appropriate explanation.</p>	1	4		5									

Question	Mark Scheme	AO1	AO2	AO3	Total
(b) (i)	Identify the lever at A. Award: 1 mark for 3 rd Order. Credit only this response	1			1
(ii)	Classify the synovial joint at D (hip). Award: 1 mark for Ball and socket. Credit only this response	1			1
(iii)	Identify the type of joint at the knee and analyse the movements that are taking place at B and C. Award: 1 mark for identifying the type of joint at the knee. Hinge joint. Award 2 x 2 marks for analysis of movement at B and C. Maximum of 2 marks for each. Analysis. At B Type of movement is flexion (1). Flexion at the knee is caused by contraction of the hamstrings (1). At C Type of movement is extension (1). Extension of the knee is caused by the contraction of the quadriceps (1). Credit only these responses	1	4		5
(c)	Name one sporting example of movement on the saggital plane. Justify your answer. Examples could include: Kicking a ball, throwing a ball (1) Credit any other appropriate example Justification Movement on a saggital plane involves front to back movement; the kicking action involves the backward movement followed by a forward motion to demonstrate movement on the sagittal plane (1) Movements on a saggital plane involves flexion/extension; the throwing action requires flexion to extension of the elbow (1) Credit any other appropriate response	1	2		3

(d) (i)	Identify: The agonistic muscle group causing contraction of the knee. Hamstrings/bicep femoris	1			1
(ii)	The antagonistic muscle group that relaxes to allow contraction of the knee. quadriceps	1			1

Question	Mark Scheme	AO1	AO2	AO3	Total
3 (a)	<p>Explain why carbohydrates would probably be the main energy source used during a hockey match.</p> <p>The explanation will need to link to intensity and duration of the match and be applied to hockey to access 4 marks.</p> <p>Maximum of 1 mark if the use of carbohydrates is not linked to intensity or duration of the activity.</p> <p>Explanation:</p> <ul style="list-style-type: none"> • Carbohydrates as a fuel for muscular contractions (1) particularly as the main fuel for moderate to high intensity (1) • Carbohydrates as the fuel for 1min duration to 2 hours which would apply to hockey (1) • High intensity activity - multiple sprints (1) • Reasoning around fats being used for lower intensity (1) • ATP-PC at high intensity therefore carbohydrates for this activity (1) <p>Credit any other appropriate response</p>		4		4

(b)	<p>Evaluate why rehydration is important before during and after participation in intense physical activity.</p> <p>The evaluation must link the importance of rehydration to intensity of the activity to access marks.</p> <p>Evaluation:</p> <ul style="list-style-type: none"> • Evaluation of the importance of adequate hydration and that adequate hydration has a positive effect on performance during intense physical activity (1) • The evaluation could include that hydration helps with removal of waste products – helps recovery and can therefore help perform at a high intensity as soon as possible after completing intense exercise (1) • Evaluation of the role hydration plays in helping to regulate body temperature (1) and that this should have a positive effect on performance (1) • Evaluation of the effect of hydration on reducing the possibility of cramps (1) • Evaluation of the effect of hydration on the capacity to sustain performance for longer (1) • Evaluation of possible negative effects of over-hydration on performance (1) <p>Accept any of the above couched in negative terms e.g. lack of hydration can have a negative effect on performance</p> <p>Credit any other appropriate response</p>			4	4
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Question	Mark Scheme	AO1	AO2	AO3	Total
(c)	<p>Outline two health benefits of an active lifestyle.</p> <p>Award 2 x 2 marks for outlining two benefits, maximum of 2 marks for identifying benefits without outlining them.</p> <p>Outline Reduce risks of:</p> <ul style="list-style-type: none"> hypertension (1) - reduces the risk of heart problems (1) obesity (1) - reduces risk of diabetes, heart problems or any other appropriate reduced risks (1) improve poor body image/self-esteem (1) which has positive social consequences (1) <p>Credit any other appropriate response</p>	4			4
(d)	<p>Analyse how the physiological adaptations of the body from sustained and regular exercise could improve sporting performance.</p> <p>This is an evaluation question. Credit should only be given for evaluative responses.</p> <p>The question asks for adaptations (plural). Award a maximum of 2 marks if only one adaptation is considered in the answer.</p> <p>Indicative Content Identification of adaptation and its relationship with the type of exercise and improvement in performance</p> <p>Adaptations Evaluation of Cardio vascular/respiratory adaptations: capillarisation, blood pressure, heart rate, cardiac output, stroke volume, minute ventilation, and their effect on sporting performance</p> <p>Energy systems, type of exercise and their effects on performance Evaluation of Muscular-skeletal adaptations: Muscular – elasticity of muscles, hypertrophy/ atrophy Skeletal – joints become mobilised, density of bones increases, type of exercise and their effect on sporting performance</p> <p>Improvement in performance Improvement should be linked to the adaptations e.g. increased elasticity can help increase length of stride and therefore increase speed e.g. improved energy systems therefore run faster, keep up with play, don't fatigue, stay focused, recover quicker Credit any other appropriate response which relates to long term adaptations rather than short term responses to exercise</p>			6	6

Band	AO3
3	<p>5-6 marks</p> <p>Excellent, well-reasoned analysis of aerobic and anaerobic adaptations</p> <p>Explicit links between the type of exercise, adaptation and improvement in performance</p> <p>A minimum of two adaptations are analysed</p> <p>The answer is balanced and detailed and focuses on the key content</p> <p>The response is clearly expressed and shows accurate use of technical terminology. Writing is very well structured using accurate grammar, punctuation and spelling</p>
2	<p>3-4 marks</p> <p>Good analysis of aerobic and/or anaerobic adaptations</p> <p>Clear links between the adaptation and exercise and/or improvement in performance</p> <p>A minimum of two adaptations are analysed</p> <p>The answer has detail and focuses on aspects of key content</p> <p>The response is adequately expressed and shows appropriate use of technical terminology. Writing is generally well structured using reasonably accurate grammar, punctuation and spelling</p>
1	<p>1-2 marks</p> <p>Limited analysis of adaptations and few links to improvements on performance are made</p> <p>At least one adaptation is analysed with no reference to the type of activity or to improvement in performance</p> <p>The response shows basic use of technical terminology. Writing shows some evidence of structure but with some errors in grammar, punctuation and spelling</p>
0	<p>0 marks</p> <p>No analysis Not attempted</p>

Question	Mark scheme	AO1	AO2	AO3	Total
4 (a)	<p>Define the terms mental well-being and social well-being and explain how taking part in regular physical activity can help a person's mental well-being and social well-being. Give examples to support your answer.</p> <p>Award maximum of 1 mark for definitions of mental and social well-being.</p> <p>Mental well-being-state of positive psychological/emotional health</p> <p>Social well-being-state of positive social skill/confidence</p> <p>Award an additional 4 marks for explanation of benefits of exercise to mental and social well-being.</p> <p>Award a maximum of 3 marks if only one of mental well-being or social well-being is explained</p> <p>Explanation</p> <p>Benefits of exercise to mental well-being</p> <ul style="list-style-type: none"> • Stimulation, enjoyment – ‘feel good’ e.g. endorphin release during exercise(1) • Tension/stress relief – e.g. take away from stresses of life, focus on the immediate (1) • Aggression – emotion control some sports such as rugby give an environment for controlled aggression (1) • Emotions not experienced elsewhere – success, exhilaration, important, ‘part of something’, self-esteem – e.g. scoring a goal gives feeling of illation and personal success if only for a short while (1) <p>Benefits of exercise to social well-being</p> <ul style="list-style-type: none"> • Increases confidence in stressful situations e.g. being successful in a close match can improve confidence away from sports field (1) • Teamwork and co-operation development e.g. team work found in some sports develops skills that are important in other aspects of life (1) • Fulfilment – challenge – worth e.g. overcoming challenges in outdoor education activities can improve sense of self- worth (1) • Friendship – meeting people e.g. within a sports team – links to mental-well-being (1) <p>Credit any other appropriate response</p>	1	4		5

Question	Mark scheme	AO1	AO2	AO3	Total
(b)	<p>Evaluate why these changes occurred during the 12 week training programme.</p> <p>Maximum of 3 marks should be awarded for knowledge of relevant subject content (AO1)</p> <p>Indicative content</p> <ul style="list-style-type: none"> • Knowledge and understanding of methods of training (AO1) • Knowledge and understanding of components of fitness (AO1) • Knowledge and understanding of principles of training (AO1) • Knowledge and understanding of training zones (AO1) • Evaluation of data (AO3) • Method of training - evaluation of appropriate training methods (AO3) • Components of fitness - evaluation of appropriate training methods to improve fitness (AO3) • Principles of training - evaluation of appropriate principles of training to improve fitness (AO3) • Training zones - evaluation of the use of training zones (AO3) • Diet/nutrition - evaluation of their effects on reduction in body fat (AO3) • Physiological change: • Systemic and circulatory systems, long term adaptations - evaluation of long-term adaptations (AO3) <p>Credit any other appropriate response</p>	3		5	8

Band	AO1	AO3
	3 marks	5 marks
3	3 marks Excellent knowledge of key content.	5 marks Excellent evaluation of all the data and valid conclusions are drawn about the success of the programme At least 2 aspects of key content are evaluated in detail The answer is balanced and detailed The response is clearly expressed and shows accurate use of technical terminology. Writing is very well structured using accurate grammar, punctuation and spelling
2	2 marks Good knowledge of key content relevant.	3-4 marks Good evaluation of the data with mainly valid conclusions drawn about the success of the programme At least 2 aspects of key content are evaluated The answer is balanced The response is adequately expressed and shows appropriate use of technical terminology. Writing is generally well structured using reasonably accurate grammar, punctuation and spelling
1	1 mark Limited knowledge of key content.	1-2 marks Limited evaluation with a tendency to describe the results Few or no conclusions are drawn At least 1 aspect of key content is superficially evaluated The response shows basic use of technical terminology. Writing shows some evidence of structure but with some errors in grammar, punctuation and spelling
0	Not attempted. No knowledge shown.	0 marks Not attempted No evaluation

Component 1 assessment objectives mark allocation

	Q1	Q2	Q3	Q4	TOTAL	OVERALL WEIGHTING
AO1	8	9	4	4	25	25%
AO2	0	12	4	4	20	20%
AO3	0	0	10	5	15	15%
Total	8	21	18	13	60	60%