



PE

BTEC | First in Sport Level 1/2 | Unit 1 (2012/13)



Topic Tests for BTEC First in Sport

Unit 1: Fitness for Sport and Exercise

Suitable for the 2012 Award, Certificate, Extended Certificate and 2013 Diploma

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Teacher's Introduction

This resource has been created for the BTEC Level 1/2 First in Sport and covers all the theoretical content for **Unit 1: Fitness for Sport and Exercise**. There is a total of 10 topic tests, each of which focuses on a different section of the unit specification. Tests range from 30 to 41 marks in total and should take approximately 30–45 minutes each to complete, depending on the specific number of marks available in each test.

Remember!

Always check the exam board website for new information, including changes to the specification and sample assessment material.

Each topic test is designed to progress in difficulty level, generally starting with memory recall questions to get the students thinking about the core specification points of each topic, before becoming harder and requiring students to use more of their initiative in their answers. The tests often consist of multiple parts, containing a mix of short-answer questions and longer, inferential questions. Many questions include sport and physical activity examples to give students an idea of the broad practical application of theoretical content. A variety of question styles is included using gap-fill sentences, match-ups, tables, diagrams or images to display information and engage the student. For the purpose of testing questions using normative data, we have created data sets that are reasonable estimations of normative data. As such, they are realistic and work in testing the student's ability to interpret data. Please note that for coursework and the like students should compare it to real normative data obtained from reliable sources.

Answers and guidance for mark allocation are provided at the end. These can be used for peer- and self-assessment. They also provide you, as the teacher, with an opportunity to identify students' strengths and weaknesses in order to direct your teaching practices accordingly. A Levelled mark scheme is also given as an appendix, along with details on how to use a best fit approach to marking all 9 mark exam-style questions.

Specification reference table

The following table can be used to identify which specification points you are teaching and select the appropriate topic test to suit your needs.

Tests 3–5 and 6–10 all target the same topic (Training Methods and Fitness Testing, respectively) but have been split up to test methods of training and components of fitness which were deemed most similar.

Topic Test	Title	Spec Reference	Total Marks
A. The Components of Fitness and the Principles of Training			
1.	Components of Physical Fitness and Skill-related Fitness	A.1–A.3	41
2.	Exercise Intensity and the Principles of Training*	A.4–A.6	37
B. Fitness Training Methods			
3.	Training Methods I: Flexibility and Speed Training	B.1–B.3	41
4.	Training Methods II: Strength, Muscular Endurance and Power Training	B.1–B.3	37
5.	Training Methods III: Aerobic Endurance	B.1–B.3	33
C. Fitness Testing to Determine Fitness Levels			
6.	Fitness Testing I: Flexibility and Body Composition*	C.1, C.3–C.4	39
7.	Fitness Testing II: Speed and Agility	C.1–C.4	32
8.	Fitness Testing III: Strength and Power	C.1, C.3–C.4	30
9.	Fitness Testing IV: Muscular and Aerobic Endurance	C.1–C.4	34
10.	Requirements for Test Administration and Importance of Fitness Testing	C.1–C.4	34

¹ Tests 3–5 include questions to cover Topic B.1, but do not aim to cover this topic for every single training method.

² Tests 6–9 include questions to cover Topics C.3–C.4, but do not aim to cover these spec points for every single fitness test.

* Calculator is required for tests 2 and 6.

D Embleton, June 2021

1. Components of Physical Fitness and Skill

1. a) Which component of fitness is being defined in the following sentence?

The ability to move the body rapidly or change direction accurately maintained throughout.

Tick the box next to your answer.

Power

Agility

Speed

Coordination

b) Which component of fitness is being defined in the following sentence?



Ability to perform motor tasks in a precise and timely manner, so smoothly into the next.

Tick the box next to your answer.

Balance

Muscular endurance

Coordination

Agility

2. Samantha's coach suggested that aerobic endurance is a key component of fitness for her event of open-water swimming.

a) Give the definition of aerobic endurance.

.....
.....

b) Explain why aerobic endurance is a key component of physical fitness for

.....
.....
.....
.....

c) Give **two** other sports or physical activities where aerobic endurance is

1.
2.

d) Give **one** alternative name used for aerobic endurance.

.....

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3. a) Identify the component of fitness described below.

The relative proportions of body mass that are made up of fat-free mass.

.....

b) Muscle is a type of fat-free mass.

Identify **two other** types of fat-free mass.

1.

2.

c) Explain why a greater amount of fat-free mass is unfavourable for long-distance running performance.

.....
.....
.....
.....

4. The image on the right shows how the cardiovascular and respiratory systems combine to form the cardiorespiratory system.

a) Other than the heart and lungs, identify **one** structure of the cardiovascular system and **one** structure of the respiratory system.

Cardiovascular system:

Respiratory system:

b) Describe the role of the cardiorespiratory system during exercise.

.....
.....
.....
.....



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5. a) State the definition of muscular endurance.

.....

.....

Josh is a decathlete who requires muscular endurance for the 400 and decathlon, he also competes in the events displayed in the table below

100 m sprint	Long jump	Shot-put
110 m hurdles	Discus throw	Pole vault

b) Explain, using examples from the decathlon, why the type of event should determine the fitness component that is most important for successful participation.

.....

.....

.....

6. a) Complete the following table to:

- i) give the definition of each component of fitness
- ii) identify whether it is a physical or a skill-related component (circle)

Component of fitness	i) Definition
Flexibility	
Reaction time	
Balance	

Balance is a key component of fitness in gymnastics. There are two types of

b) Give **one** example of where static balance might be used in gymnastics
 dynamic balance might be used in gymnastics.

Static balance:

Dynamic balance:

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7. a) Complete the following sentence, which states the definition of strength
 'Strength is the greatest _____ an individual is able
- b) Name **one** sport or activity in which strength is a key component of fitness
 answer.

Sport or activity:	Reason:
(1 mark)	

8. a) Fill in the gaps below to identify how speed and power are determined
- 'Speed is measured by the _____ it takes to
 cover a short, predetermined _____
- 'Power is calculated from _____ × speed
 exertion is performed as _____

- b) Give **one** characteristic of each of the following types of speed:
- Pure speed:
- Accelerative speed:
- Speed endurance:

Tanja is a 100 m sprinter who has been advised by her coach that in order to improve her personal best she must develop her power and speed.

- c) Identify the type of speed that is **least** relevant to performance in the 100 m sprint.
-
- (1 mark)

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d) Explain how both physical and skill-related components of fitness are important for performance in the 100 m sprint.

Physical:

.....

.....

.....

Skill-related:

.....

.....

.....

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9. Les is a football coach who has been planning his team’s training for pre-season. He has identified speed and agility as two key components of fitness that need improving.

Give **one** example for coordination and **one** example for agility to demonstrate the importance of these components in different playing positions in football.

Coordination	Example:
Agility	Example:

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Preview of Questions Ends Here

This is a limited inspection copy. Sample of questions ends here to avoid students previewing questions before they are set. See contents page for details of the rest of the resource.

10. Requirements for Test Administration and the Importance of

Q.		Answer
1	a	<p>Fitness test: Sit-and-reach test, grip dynamometer test, Forestry step test, assessment of body composition (1)</p> <p>Reason: Fitness declines with age, so performing strenuous tests may not be practical (1)</p>
	b	<ul style="list-style-type: none"> • Informed consent (1) to ensure that the participant knows what their fitness testing involves and gives their written permission to participate (1) • Calibration of equipment (1) to ensure everything is in working order and not pose a threat to health (1)
2	a	<p>Reliability – Whether a measurement that is repeated in the same way yields the same result (1)</p> <p>Validity – Whether a fitness test measures what it sets out to measure (1), e.g. 30m sprint is a valid test for speed but not agility (1)</p> <p>Practicality – Whether a test can feasibly be carried out with a specific population (1), e.g. the vertical jump test is not practical for someone who is dependent on a wheelchair (1)</p>
	b	<ul style="list-style-type: none"> i) Reliability (1) ii) Practicality (1) iii) Validity (1)
3	a	<p>Fitness tests are compared against published normative data / peers (1), which provide(s) different qualitative ratings for age-matched population norms / superior performers (1)</p>
	b	<p>Any one from the following:</p> <ul style="list-style-type: none"> • Protocol • Units of measurement
	c	<p>Any two from the following:</p> <ul style="list-style-type: none"> • It gives baseline data (1) which can be used to monitor progress (1) • It informs the prescription of the training programme (1), which can be adjusted if the individual is not on track (1) • It can provide motivation (1) needed for an individual to achieve a goal (1)
4		<ul style="list-style-type: none"> i) To monitor progress / inform training manipulation (1) ii) To test reliability / obtain an average (1) iii) To establish a baseline / set a target / prescribe training (1)

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Q.	Answer
5	<p>Indicative content:</p> <ul style="list-style-type: none"> • The trainer must ensure they fulfil pre-test procedures <ul style="list-style-type: none"> ○ Informed consent must be obtained for legal protection of the test ○ Equipment and machinery must be calibrated to ensure safe tests and accurate results • The trainer should have a full understanding of the test protocols • They should ensure protocols are standardised throughout retests so that monitored changes in fitness are reliable changes • The trainer must have experience with operating equipment for participant safety and obtaining accurate measurements • They must establish a clear purpose for conducting each test which aligns with the aims and goals of the client • They must be able to draw interpretations from the results, i.e. <ul style="list-style-type: none"> ○ Suggesting what they mean in terms of performance capability ○ Comparing them against published normative values • They must consider the individual needs of the client when selecting a fitness test <ul style="list-style-type: none"> ○ e.g. Forestry step test is more practical than multistage fitness test for those who struggle with strenuous exercise ○ Performer may prefer one-minute sit-up test to one-minute press-up test • They must consider the validity of each test in terms of the sport, event or activity in which the client is looking to improve their performance • They might wish to weigh up the advantages and disadvantages of each test when determining its suitability

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Preview of Answers Ends Here

This is a limited inspection copy. Sample of answers ends here to stop students looking up answers to their assessments. See contents page for details of the rest of the resource.

Appendix A: Levelled Mark Scheme

Levelled marking will be used to decide on the marks awarded for long-answer (9-) questions. The examiner/marker will look at various aspects of the student's answer (including the content, accuracy, as well as their application and evaluative skills) to decide which grade band their answer falls into.

The table below contains a summary of details found in the mark scheme in the different answer levels, how these are demonstrated in students' answers to the questions, and the marks awarded for each level.

Examiners will take a 'best fit' approach to marking answers. This involves the following:

1. Make a holistic judgement on which band the answer most closely matches.
2. Examiners then decide which mark *within* that band the student should receive.
 - a. This is based on the quality of the answer, linked to how securely key elements in the table below are covered.
 - b. Whether the answer falls into the bottom, middle or top of that band depends on how well the key elements of that band within the answer.

	Marks	Description
Level 1	1–3	<ul style="list-style-type: none"> • Basic response with isolated elements of knowledge and accuracy • Breaks question down into component parts, and a few links to question/context • Limited analysis; contains generic assertions with no links
Level 2	4–6	<ul style="list-style-type: none"> • Competent response with some accurate knowledge and accuracy • Breaks question down into component parts, and some links to question/context • Partially developed analysis; contains some links, but no clear links
Level 3	7–9	<ul style="list-style-type: none"> • Comprehensive response with mostly accurate knowledge and accuracy • Breaks question down into component parts, and most links to question/context • Developed and logical analysis; clearly considers the links

0 marks should be awarded if no part of the answer is worthy of credit.

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