

Weekly BTEC SPORT YR10 Revision Plan

Unit 1 Fitness for Sport & Exercise

For each week revise for minimum 1hr and provide revision resources which prove you have to show your teacher!

Week	Topic	Task
8 29/4/19	Components of physical and skill related fitness (A.1 A.2 A.3)	<p>A.1 Components of physical fitness</p> <p>Aerobic endurance: Definitions and alternative names? Knowledge and understanding of cardiorespiratory system consisting of the cardiovascular system (Heart, blood vessels and blood) along with the respiratory system (lungs and airways). Draw diagrams and label.</p> <p>Muscular endurance: definition</p> <p>flexibility: definition</p> <p>Speed: definition three basic types of speed</p> <p>Muscular strength: definition</p> <p>Body composition: Definition</p> <p>A.2 Components of skill-related fitness</p> <p>Agility: definition</p> <p>Balance: definition</p> <p>Coordination: definition</p> <p>Power: definition</p> <p>Reaction time: Definition</p> <p>Summary: recognition of fitness components needed for sports performance. Give sporting examples for each component of fitness</p> <p>Topic A.3 Why fitness components are important for successful participation in given sports in terms of:</p> <ul style="list-style-type: none">• being able to successfully meet the physical demands of the sport in order to reach optimal performance. Give an example• being able to successfully meet the skill-related demands of the sport in order to reach optimal performance. Give an example• being able to perform efficiently. Give an example• giving due consideration to the type of event/position played. Give an example

<p>7 6/5/19</p>	<p>Determining exercise intensity (A.4)</p>	<p>Topic A.4 Exercise intensity and how it can be determined: Intensity define and explain how it can be measured? be able to measure heart rate (HR) and apply HR intensity to fitness training methods</p> <ul style="list-style-type: none"> • Illustrate target zones and training thresholds; calculate training zones and apply HR max to training: $HR\ max = 220 - age\ (years)$. Give an example calculation. • be able to calculate 60-85% HR max and know that this is the recommended training zone for cardiovascular health and fitness. Give an example calculation. • know that the Borg (1970) (6-20) Rating of Perceived Exertion (RPE) Scale can be used as a measure of exercise intensity. Give an example. • know about the relationship between RPE and heart rate where: $RPE \times 10 = HR\ (bpm)$ Give an example • application of the FITT principles to training methods, regimes and given exercise situations. Give examples
<p>6 13/5/19</p>	<p>Principles of training (A.5 A.6)</p>	<p>Topic A.5 The basic principles of training (FITT):</p> <ul style="list-style-type: none"> • frequency: define • intensity: define • time: define • type: define <p>Topic A.6 Additional principles of training:</p> <ul style="list-style-type: none"> • progressive overload: definition • specificity: definition • individual differences/needs: definition adaptation: definition • reversibility: definition • variation: definition <p>maintain enjoyment</p> <ul style="list-style-type: none"> • rest and recovery are required so that the body can recover from the training and to allow adaptation to occur • application of the principles of training to training methods, regimes and given exercise settings.

Requirements for effective fitness training methods
(B.1 B.2) & Fitness training methods
(B.3)

Topic B.1 Requirements for each of the following fitness training methods:

- safe, correct use of equipment
- safe, correct use of training technique
- requirements for undertaking the fitness training method, including warm-up and cool down
- application of the basic principles of training (FITT) for each fitness training method
- linking each fitness training method to the associated health-related/skill-related component of fitness.

Topic B.2 Additional requirements for each of the fitness training methods:

- advantages/disadvantages
- application of exercise intensity to fitness training methods
- application of principles of training to fitness training methods
- appropriate application of fitness training method(s) for given situation(s)
- appropriate application of fitness training method(s) to given client needs/goals/aims/objectives.

Topic B.3 Fitness training methods for:

Flexibility training:

- static: there are two types of static flexibility training. Define both and give an example
- ballistic: define and give an example
- Proprioceptive Neuromuscular Facilitation (PNF) technique: define and give an example

Strength, muscular endurance and power training:

- circuit training: define and give example
- free weights: define and give example
- intensity (% 1 Repetition Maximum - 1RM)
- training intensity for strength endurance?
- training intensity for elastic strength?
- training intensity for maximum strength?
- plyometrics: define and give examples

Aerobic endurance training:

- continuous training: define and give example
- fartlek training: define and give example
- interval training: define and give example
- circuit training: define and give example

Speed training:

- hollow sprints: define and give example
- acceleration sprints. Define and give example
- interval training: define and give example

Fitness Testing methods and its importance
(C.1 C.2)

C.1 Fitness test methods for components of fitness:

flexibility: sit and reach test (usually measured in cm or inches)

strength: grip dynamometer (usually measured in KgW)

aerobic endurance:

multi-stage fitness test, known as the bleep test (usually predicted in ml/kg/min)

forestry step test (usually predicted in ml/kg/min)

definition of VO₂ max (ml/kg/min): the maximum amount of oxygen uptake, usually measured in ml of oxygen per kg of body mass per minute. It is a measure of cardiorespiratory endurance.

speed: 35m sprint (usually measured in s)

speed and agility: Illinois agility run test (usually measured in s)

anaerobic power: vertical jump test (usually measured in kgm/s)

muscular endurance: one-minute press-up, one-minute sit-up (usually measured in number of reps/minute)

body composition:

o Body Mass Index (BMI) (usually measured in kg/m²)

o Bioelectrical Impedance Analysis (BIA), used for prediction of percent body fat

o skinfold testing via the Jackson-Pollock nomogram method for prediction of percent body fat (sites for males: chest, abdominal and thigh; sites for females: triceps, suprailiac and thigh).

C.2 Importance of fitness testing to sports performers and coaches:

- gives baseline data for monitoring/improving performance
- can design training programmes based on test results and determine if training

programmes are working

- results can give a performer something to aim for/goal setting.

<p>2 10/6/19</p>		<p>Test week</p>
<p>3 3/06/19</p>	<p>How to administer Fitness tests effectively (C.3) & Interpretation of Fitness test results (C.4)</p>	<p>C.3 Requirements for administration of each fitness test:</p> <ul style="list-style-type: none"> • pre-test procedures (informed consent, calibration of equipment) • knowledge of published standard test methods and equipment/resources required • purpose of each fitness test • accurate measurement and recording of test results • basic processing of test results for interpretation (using published data tables and appropriate units for comparison purposes) • ability to safely select appropriate test(s) for given purposes, situations and/or participants • the terms 'reliability', 'validity' and 'practicality' related to each fitness test method • advantages and disadvantages of fitness test methods. <p>C.4 Interpretation of fitness test results:</p> <ul style="list-style-type: none"> • compare fitness test results to normative published data • compare fitness test results to those of peers • be able to draw conclusions from data results • be able to analyse and evaluate test results • be able to suggest and justify appropriate recommendations for improvements to fitness for a given purpose/situation/participant • be able to suggest and justify appropriate fitness training methods that could be used for a given purpose/situation/participant.