Comparing unit content

SPORT

Edexcel BTEC Level 1/Level 2 First Award in Sport (NQF)
Edexcel BTEC Level 2 First Extended Certificate in Sport (QCF)

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Comparing unit content

BTEC First Award in Sport (NQF) and BTEC Level 2 First Extended Certificate in Sport (QCF)

Comparing unit content

This table maps the content of the new BTEC First Award in Sport for level 2 learners (NQF), shown in the left-hand column, against the content of the current BTEC Level 2 First Extended Certificate in Sport (QCF) in the right-hand column.

This mapping will help you transition from one specification to the other by highlighting where there are changes in content, particularly where there is new content that will need to be delivered to help your learners prepare for the new assessment.

In order to make the table easy to use and to demonstrate new content we have used a ‘traffic lights’ colour scheme as follows:

- **GREEN** – covered. In this case the content in the 2012 BTEC First Award (NQF) is very close to the existing BTEC Level 2 Extended Certificate (QCF). In the right-hand column the title of the relevant unit and learning outcome are identified.

- **YELLOW** – partially covered. In this case the content is partially covered, perhaps in learning outcomes in more than one unit from the BTEC Level 2 Extended Certificate (QCF). Where there is some additional knowledge in the 2012 BTEC, this is stated in the left-hand column under the heading **NEW CONTENT**.

- **RED** – not covered. In this case the content in the 2012 BTEC First Award (NQF) is new. It will appear in the left-hand column so you can see immediately what you will need to teach.

We hope you find this at-a-glance guide useful and that you enjoy your new course.

Note: This table applies to content only. You will need to assess learners against the new assessment criteria. All information is provisional. It is correct at the time of going to press but is subject to change.
## Unit 1: Fitness for Sport and Exercise

<table>
<thead>
<tr>
<th>Topic A.1 Components of physical fitness</th>
<th>Partially covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW CONTENT:</td>
<td>Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Components of fitness).</td>
</tr>
<tr>
<td>- the cardiorespiratory system</td>
<td></td>
</tr>
<tr>
<td>- recognition of fitness components needed for sports performance.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.2 Components of skill-related fitness</th>
<th>Partially covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW CONTENT:</td>
<td>Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Components of fitness).</td>
</tr>
<tr>
<td>- recognition of fitness components needed for sports performance.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.3 Why fitness components are important for successful participation in given sports</th>
<th>Partially covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW CONTENT:</td>
<td>Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Excellence).</td>
</tr>
<tr>
<td>- being able to successfully meet the physical demands of the sport in order to reach optimal performance</td>
<td></td>
</tr>
<tr>
<td>- being able to successfully meet the skill-related demands of the sport in order to reach optimal performance</td>
<td></td>
</tr>
<tr>
<td>- being able to perform efficiently</td>
<td></td>
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<tr>
<td>- giving due consideration to the type of event/position played.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.4 Exercise intensity and how it can be determined</th>
<th>Partially covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW CONTENT:</td>
<td>Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods – heart rate, training zones).</td>
</tr>
<tr>
<td>- intensity – be able to measure heart rate (HR) and apply HR intensity to fitness training methods</td>
<td></td>
</tr>
<tr>
<td>- know about target zones and training thresholds; be able to calculate training zones and apply HR max to training: HR max = 220 – age (years)</td>
<td></td>
</tr>
<tr>
<td>- be able to calculate 60–85% HR max and know that this is the recommended training zone for cardiovascular health and fitness</td>
<td></td>
</tr>
<tr>
<td>- know that the Borg (1970) (6–20) Rating of Perceived Exertion (RPE) Scale can be used as a measure of exercise intensity</td>
<td></td>
</tr>
<tr>
<td>- know about the relationship between RPE and heart rate where: RPE x 10 = HR (bpm)</td>
<td></td>
</tr>
<tr>
<td>- application of the FITT principles to training methods, regimes and given exercise situations.</td>
<td></td>
</tr>
</tbody>
</table>

- **Covered**
- **Partially covered**
- **Not covered**
### Topic A.5 The basic principles of training (FITT)

**NEW CONTENT:**
- **adaptation:**
  - **definition:** how the body reacts to training loads by increasing its ability to cope with those loads
  - **adaptation occurs during the recovery period after the training session is completed**
- 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.

**Fully covered in:**
- Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods).
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme – (Physical fitness training programme – principles of training)
- Unit 14: Exercise and Fitness Instruction LO1 Know the principles of exercise session design and exercise programming (Principles of fitness training).

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### Topic A.6 Additional principles of training

**NEW CONTENT:**
- adaptation:
  - **definition:** how the body reacts to training loads by increasing its ability to cope with those loads
  - **adaptation occurs during the recovery period after the training session is completed**
- 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.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods).
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – principles of training).

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### Unit 1 – Learning aim B: explore different fitness training methods

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

**NEW CONTENT:**
- 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.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods)
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – training methods).

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

**NEW CONTENT:**
- 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.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods)
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – training methods).
Topic B.3 Fitness training methods

**NEW CONTENT:**
- flexibility training
- strength, muscular endurance and power training
- aerobic endurance training
- speed training.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport (Fitness training methods)
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – training methods).

Unit 1 – Learning aim C: investigate fitness testing to determine fitness levels

Topic C.1 Fitness test methods for components of fitness

**NEW CONTENT:**
- **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 VO$_2$ 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:**
  - Body Mass Index (BMI) (usually measured in kg/m$^2$)
  - Bioelectrical Impedance Analysis (BIA), used for prediction of percent body fat
  - 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, suprailliac and thigh).

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO3 Be able to assess their own level of fitness (Fitness tests).

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

**NEW CONTENT:**
- 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.

**NOT COVERED**
### Topic C.3 Requirements for administration of each fitness test

**NEW CONTENT:**
- 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.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO3 Be able to assess their own level of fitness (Administration of tests).

### Topic C.4 Interpretation of fitness test results

**NEW CONTENT:**
- 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.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO3 Be able to assess their own level of fitness (Interpretation of test results).

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**Unit 2: Practical Sports Performance**

<table>
<thead>
<tr>
<th>Edexcel BTEC Level 1/Level 2 First Award in Sport (NQF)</th>
<th>Edexcel BTEC Level 2 First Extended Certificate in Sport (QCF)</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 2 – Learning aim A: understand the rules, regulations and scoring systems for selected sports</strong></td>
<td></td>
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</tbody>
</table>
| Topic A.1 Rules (or laws) | **Fully covered in:**
| | - Unit 2: Practical Sport LO2 Know the rules, regulations and scoring systems of selected sports (Rules). |
| Topic A.2 Regulations | **Fully covered in:**
<p>| | - Unit 2: Practical Sport LO2 Know the rules, regulations and scoring systems of selected sports (Regulations). |</p>
<table>
<thead>
<tr>
<th>Topic A.3 Scoring systems</th>
<th>Fully covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO2 Know the rules, regulations and scoring systems of selected sports (Scoring systems).</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.4 Application of the rules/laws of sports in different situations</th>
<th>NOT COVERED</th>
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<table>
<thead>
<tr>
<th>Topic A.5 Sports</th>
<th>Fully covered in:</th>
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<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports (Sports)</td>
</tr>
<tr>
<td></td>
<td>• Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities (Outdoor and adventurous activities).</td>
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<table>
<thead>
<tr>
<th>Topic A.6 Roles of officials</th>
<th>Fully covered in:</th>
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<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO3 Know the roles and responsibilities of officials in selected sports (Roles).</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.7 Responsibilities of officials</th>
<th>Fully covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO3 Know the roles and responsibilities of officials in selected sports (Responsibilities).</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Unit 2 – Learning aim B: practically demonstrate skills, techniques and tactics in selected sports</th>
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<table>
<thead>
<tr>
<th>Topic B.1 Technical demands</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports (Skills and techniques)</td>
</tr>
<tr>
<td></td>
<td>• Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities (Techniques and skills)</td>
</tr>
<tr>
<td></td>
<td>• Unit 8: Technical Skills and Tactical Awareness for Sport LO1 Know the technical and tactical demands of a selected sport (Technical demands).</td>
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<table>
<thead>
<tr>
<th>Topic B.2 Tactical demands</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports (Tactics)</td>
</tr>
<tr>
<td></td>
<td>• Unit 8: Technical Skills and Tactical Awareness for Sport LO1 Know the technical and tactical demands of a selected sport (Tactical demands).</td>
</tr>
<tr>
<td>Topic</td>
<td>Covered</td>
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</tbody>
</table>
| B.3 Safe and appropriate participation | Fully covered in:  
- Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports  
- Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities. |
| B.4 Relevant skills and techniques | Fully covered in:  
- Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports  
- Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities. |
| B.5 Relevant tactics | Fully covered in:  
- Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports. |
| B.6 Effective use of skills and techniques, and the correct application of each component | Fully covered in:  
- Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports  
- Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities. |
| B.7 Effective use of skills, techniques and tactics | Fully covered in:  
- Unit 2: Practical Sport LO1 Be able to demonstrate a range of skills, techniques and tactics in selected sports  
- Unit 3: Outdoor and Adventurous Activities LO3 Be able to demonstrate techniques and skills associated with selected outdoor and adventurous activities. |
| B.8 Isolated practices | NOT COVERED |
| B.9 Conditioned practices | NOT COVERED |
| B.10 Competitive situations | NOT COVERED |
### Unit 2 – Learning aim C: be able to review sports performance

<table>
<thead>
<tr>
<th>Topic C.1 Observation checklist</th>
<th>Fully covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO4 Be able to review sports performance (analysis)</td>
</tr>
<tr>
<td></td>
<td>• Unit 3: Outdoor and Adventurous Activities LO4 Be able to review performance in outdoor and adventurous activities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic C.2 Review performance</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 2: Practical Sport LO4 Be able to review sports performance (Review)</td>
</tr>
<tr>
<td></td>
<td>• Unit 3: Outdoor and Adventurous Activities LO4 Be able to review performance in outdoor and adventurous activities.</td>
</tr>
</tbody>
</table>

### Unit 3: The Mind and Sports Performance

#### Edexcel BTEC Level 1/Level 2
- First Award in Sport (NQF)

#### Edexcel BTEC Level 2 First Extended Certificate in Sport (QCF)

### Unit 3 – Learning aim A: investigate personality and its effect on sports performance

<table>
<thead>
<tr>
<th>Topic A.1 Definition of personality</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Unit 9: Psychology for Sports Performance LO3 Know the effect of personality and aggression on sports performance (Personality).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.2 Structure of personality</th>
<th>NOT COVERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic A.3 Personality types</td>
<td>Fully covered in:</td>
</tr>
<tr>
<td></td>
<td>• Unit 9: Psychology for Sports Performance LO3 Know the effect of personality and aggression on sports performance (Personality).</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic A.4 Methods of measuring personality</th>
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</table>

**NEW CONTENT:**
- interactional (considers both the individual’s traits and the situation they find themselves in when determining behaviour).

<table>
<thead>
<tr>
<th>Topic A.5 Views of personality</th>
<th>Partially covered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW CONTENT:</strong></td>
<td>• Unit 9: Psychology for Sports Performance LO3 Know the effect of personality and aggression on sports performance (Personality).</td>
</tr>
</tbody>
</table>

- Covered  
- Partially covered  
- Not covered
### Unit 3 – Learning aim B: explore the influence that motivation and self-confidence have on sports performance

<table>
<thead>
<tr>
<th>Topic</th>
<th>Coverage</th>
</tr>
</thead>
</table>
| **B.1 Definition of motivation** | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Motivation). |
| **B.2 Types of motivation** | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Motivation). |
| **B.3 Views of motivation** | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Motivation). |
| **B.4 Definition of achievement motivation** | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Motivation).  
Partially covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors). |
| **B.5 Benefits of motivation on sports performance** | Fully covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors). |
| **B.6 Principles of setting goals to increase and direct motivation** | Partially covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors)  
Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Strategies). |
| **B.7 Definition of self-confidence** | NOT COVERED |
| **B.8 Benefits of self-confidence** | NOT COVERED |
| **B.9 Methods to increase self-confidence** | NOT COVERED |
### Comparing unit content

<table>
<thead>
<tr>
<th>Topic B.10 Definition of self-efficacy</th>
<th>NOT COVERED</th>
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</thead>
<tbody>
<tr>
<td>Topic B.11 Factors affecting self-efficacy</td>
<td>NOT COVERED</td>
</tr>
</tbody>
</table>
| Topic B.12 Goals                       | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Strategies). |
| Topic B.13 Influence of goal setting on sports performance | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Strategies). |
| Topic B.14 Influence of goal setting on motivation | Fully covered in:  
- Unit 9: Psychology for Sports Performance LO2 Know the impact motivation can have on sports performance (Strategies). |

**Unit 3 – Learning aim C: know about arousal and anxiety, and the effects they have on sports performance**

| Topic C.1 Definition of anxiety | Partially covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors). |
|---------------------------------|--------------------------|
| Topic C.2 Types of anxiety      | Partially covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors). |
| Topic C.3 How arousal and anxiety affect sports performance | Fully covered in:  
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Effects). |

NEW CONTENT:
- Definition of anxiety: the level of worry or nervousness an individual experiences.
- Types of anxiety:
  - state (temporary, changing feelings of tension and apprehension due to the nervous system becoming activated)
  - trait (a personality factor characterised by stable, consistent feelings of tension and apprehension across many situations due to the nervous system being continually activated)
  - somatic (physical effects), e.g. butterflies in the stomach, muscle tension, increases in heart rate and breathing rate
  - cognitive (mental effects), e.g. increased feelings of worry, unable to concentrate, quick-tempered.
### Unit 4: The Sports Performer in Action

#### Topic C.4 How anxiety and arousal can be controlled

**NEW CONTENT:**
- imagery, e.g. imagining a relaxing experience, rehearsing a successful performance
- relaxation techniques, e.g. progressive muscular relaxation, mind-to-muscle techniques, breathing techniques.

**Partially covered in:**
- Unit 1: Fitness Testing and Training LO4 Know the effects of psychological factors on sports training and performance (Factors).

#### Unit 4 – Learning aim A: know about the short-term responses and long-term adaptations of the body systems to exercise

#### Topic A.1 Short-term effects of exercise on the musculoskeletal system

**NEW CONTENT:**
- increased production of synovial fluid for joint lubrication and nourishment
- increased joint range of movement due to increase in blood flow and increased muscle temperature
- micro tears in muscle fibres, causing the muscle to rebuild itself and become slightly bigger and stronger
- exercise (high-impact activity) encourages new bone formation
- increased metabolic activity.

**Partially covered in:**
- Unit 18: Effects of Exercise on the Body Systems LO1 Be able to investigate the short-term effects of exercise on the body systems (Musculoskeletal system).
### Topic A.2 Short-term effects of exercise on the cardiorespiratory system

**NEW CONTENT:**

- increased heart rate due to the heart having to work harder to pump oxygenated blood around the body
- increased breathing rate, in order to supply more oxygen to working muscles and remove carbon dioxide
- increased blood flow
- sweat production and skin reddening
- redistribution of blood flow via the vasoconstriction (narrowing) of arterioles supplying inactive parts of the body and vasodilation (opening) of arterioles supplying skeletal muscles with more blood and nutrients
- increased build-up of lactic acid in the blood
- increased cardiac output to get oxygenated blood to working muscles (due to increased heart rate and stroke volume)
- increased blood pressure – as the cardiovascular system works to deliver more oxygen and glucose to the muscles (systolic pressure rises and diastolic pressure remains unchanged)
- as muscular activity increases, the production of carbon dioxide increases resulting in an increase in Tidal Volume (TV) (TV is the amount of air inhaled and exhaled with each breath).

### Topic A.3 Long-term adaptations of the musculoskeletal system

**NEW CONTENT:**

- hypertrophy (increased muscle size)
- increase in bone density (bone strength) due to increase in calcium production
- stronger connective tissues (ligaments and tendons), so more resistant to injury
- increased stability of joints
- increased thickness of hyaline cartilage
- skeletal muscles adapt to using more oxygen, the muscles and their capillaries become more efficient and can therefore work for a longer period of time
- increased number of mitochondria
- decreased risk of osteoporosis
- improved posture.

### Partially covered in:

- Unit 18: Effects of Exercise on the Body Systems LO1 Be able to investigate the short-term effects of exercise on the body systems (*Cardiovascular system and Respiratory system*).

- Unit 18: Effects of Exercise on the Body Systems LO2 Know the long-term effects of exercise on the body systems (*Musculoskeletal system*).
**Topic A.4 Long-term adaptations of the cardiorespiratory system**

**NEW CONTENT:**
- decrease in resting heart rate: resting heart rate is able to slow down because the heart is trained to pump a larger quantity of blood with every beat
- increase in heart size and strength
- increase in stroke volume
- the heart can pump more blood per beat, so resting heart rate decreases (bradycardia); heart becomes more efficient and does not need to beat as quickly to supply the body.

**Partially covered in:**
- Unit 18: Effects of Exercise on the Body Systems
  LO2 Know the long-term effects of exercise on the body systems (Cardiorespiratory system).

### Unit 4 – Learning aim B: know about the different energy systems used during sports performance

<table>
<thead>
<tr>
<th>Topic B.1 The anaerobic energy system – not using oxygen</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unit 18: Effects of Exercise on the Body Systems</td>
</tr>
<tr>
<td></td>
<td>LO3 Be able to investigate the fundamentals of the energy systems.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic B.2 ATP-CP/alactic acid anaerobic system</th>
<th>Fully covered in:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unit 18: Effects of Exercise on the Body Systems</td>
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<tr>
<td></td>
<td>LO3 Be able to investigate the fundamentals of the energy systems.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic B.3 Glycolysis/lactic acid anaerobic system</th>
<th>Fully covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit 18: Effects of Exercise on the Body Systems</td>
</tr>
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<td></td>
<td>LO3 Be able to investigate the fundamentals of the energy systems.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic B.4 The aerobic energy system – using oxygen</th>
<th>Fully covered in:</th>
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<tbody>
<tr>
<td></td>
<td>Unit 18: Effects of Exercise on the Body Systems</td>
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<td></td>
<td>LO3 Be able to investigate the fundamentals of the energy systems.</td>
</tr>
</tbody>
</table>
## Unit 5: Training for Personal Fitness

### Unit 5 – Learning aim A: design a personal fitness training programme

<table>
<thead>
<tr>
<th>Topic A.1 Personal information to aid training programme design</th>
<th>NEW CONTENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• personal goals: specific, measurable, achievable, realistic, time-related, exciting, recorded (SMARTER)</td>
</tr>
<tr>
<td></td>
<td>• short term (set over a short period of time, between one day and one month)</td>
</tr>
<tr>
<td></td>
<td>• medium term (should give progressive support towards achievement of long-term goals)</td>
</tr>
<tr>
<td></td>
<td>• long term (what they want to achieve in the long term, and the best way of doing this)</td>
</tr>
<tr>
<td></td>
<td>• aims (details of what they would like to achieve)</td>
</tr>
<tr>
<td></td>
<td>• objectives (how they intend to meet their aims)</td>
</tr>
<tr>
<td></td>
<td>• lifestyle and physical activity history</td>
</tr>
<tr>
<td></td>
<td>• medical history questionnaire</td>
</tr>
<tr>
<td></td>
<td>• attitudes and personal motivation for training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partially covered in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme.</td>
</tr>
</tbody>
</table>

### Topic A.2 The basic principles of training (FITT)

<table>
<thead>
<tr>
<th>FULLY COVERED IN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – principles of training).</td>
</tr>
<tr>
<td>• Unit 14: Exercise and Fitness Instruction LO1 Know the principles of exercise session design and exercise programming (Principles of fitness training).</td>
</tr>
</tbody>
</table>

### Topic A.3 Further principles of training and how they are applied to training methods

<table>
<thead>
<tr>
<th>NEW CONTENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• rest and recovery are required so that the body can recover from the training and to allow adaptation to occur</td>
</tr>
<tr>
<td>• adaptation: where the body reacts to training loads by increasing its ability to cope with those loads. Adaptation occurs during the recovery period after the training session is completed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partially covered in:</th>
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<tbody>
<tr>
<td>• Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme – principles of training).</td>
</tr>
</tbody>
</table>
### Topic A.4 Programme design

**NEW CONTENT:**
- selection of appropriate training method(s)/activities for improving/maintaining fitness, e.g. flexibility, strength, muscular endurance and power, aerobic endurance, speed
- safe design: appropriate method(s)/selection of an appropriate combination of activities to meet personal training needs, goals, aims and objectives
- selection of appropriate activities for warm-up (light, continuous physical activity to prepare the body for exercise)
- selection of appropriate activities for cool down (light, continuous physical activity to reduce heart rate, remove lactic acid and prevent blood pooling)
- creative design: consideration given to prevent/avoid barriers to training occurring, ensuring exercise adherence is maintained and the programme is enjoyable, for example, including interesting, different exercise activities to maintain motivation and commitment, and to prevent boredom.

**Partially covered in:**
- Unit 11: Development of Personal Fitness LO1 Be able to plan a personal fitness training programme (Physical fitness training programme).

---

### Unit 5 – Learning aim B: know about exercise adherence factors and strategies for continued training success

#### Topic B.1 Factors

**Fully covered in:**
- Unit 11: Development of Personal Fitness LO2 Know personal exercise adherence factors and strategies (Exercise adherence factors).

#### Topic B.2 Strategies

**Fully covered in:**
- Unit 11: Development of Personal Fitness LO2 Know personal exercise adherence factors and strategies (Exercise adherence strategies).

---

### Unit 5 – Learning aim C: implement a self-designed personal fitness training programme to achieve own goals and objectives

#### Topic C.1 Safely implement a personal fitness training programme

**NEW CONTENT:**
- undertaking appropriate training method(s) (e.g. taking part in planned sessions), performing to the best of your ability, gaining agreement from coach/trainer for any missed sessions, understanding the importance of commitment
- wearing correct training gear, safe and correct use of equipment, implementation of correct technique, awareness of wider safety issues, e.g. personal safety, if training outdoors
- taking full responsibility for completing and recording details for each training session.

**Partially covered in:**
- Unit 11: Development of Personal Fitness LO3 Be able to implement and review a personal fitness training programme (Implement).
### Topic C.2 Training diary for each session recording

**NEW CONTENT:**
- date, time and location for training undertaken
- aims and objectives for each session
- session duration
- type of training undertaken – selected method(s)/activities
- programme details (FITT)
- log of personal performance and achievements
- resources required, e.g. equipment
- the principles of progressive overload and details of how progressive overload has been achieved over the course of the programme
- details of programme intensity using % HR max and RPE.

### Partially covered in:
- Unit 11: Development of Personal Fitness LO3 Be able to implement and review a personal fitness training programme *(Training diary).*

### Topic C.3 Measures for success

**NEW CONTENT:**
- motivation for training, including details in the diary of personal feelings before, during and after each training session
- details of how the programme has been adapted to ensure continued commitment to training, for example using a variation of activities/training methods
- achievement against personal aims, goals and objectives, for example how performance has been taken to a higher level
- overcoming barriers to training/issues/problems.

### NOT COVERED

Unit 5 – Learning aim D: review a personal fitness training programme

### Topic D.1 Review programme

**NEW CONTENT:**
- recommendations for improving future training and performance, for example personal training needs, use of different training methods/activities or strategies, use of psychological training techniques to improve performance

### Partially covered in:
- Unit 11: Development of Personal Fitness LO3 Be able to implement and review a personal fitness training programme.
## Unit 6: Leading Sports Activities

<table>
<thead>
<tr>
<th>Topic A.1 Sports leaders</th>
<th>Unit 7: Planning and Leading Sports Activities LO1 Know the skills, qualities and responsibilities associated with successful sports leadership (Sports leaders).</th>
</tr>
</thead>
</table>
| Topic A.2 Attributes     | Unit 7: Planning and Leading Sports Activities LO1 Know the skills, qualities and responsibilities associated with successful sports leadership (Skills and Qualities).  
Unit 16: Leading Outdoor and Adventurous Activities LO1 Know the skills, qualities and responsibilities associated with successful outdoor and adventurous activity leadership (Skills and Qualities). |
| Topic A.3 Responsibilities| Unit 7: Planning and Leading Sports Activities LO1 Know the skills, qualities and responsibilities associated with successful sports leadership (Responsibilities).  
Unit 16: Leading Outdoor and Adventurous Activities LO1 Know the skills, qualities and responsibilities associated with successful outdoor and adventurous activity leadership (Responsibilities). |

## Unit 6 – Learning aim B: undertake the planning and leading of sports activities

<table>
<thead>
<tr>
<th>Topic B.1 Sports activities</th>
<th>Unit 16: Leading Outdoor and Adventurous Activities LO1 Know the skills, qualities and responsibilities associated with successful outdoor and adventurous activity leadership (Outdoor and adventurous activities).</th>
</tr>
</thead>
</table>
| Topic B.2 Components of sports activity session | Unit 7: Planning and Leading Sports Activities LO2 Be able to plan and lead an activity session (Activity)  
Unit 16: Leading Outdoor and Adventurous Activities LO2 Be able to plan and lead, under supervision, outdoor and adventurous activities (Activities). |
### Topic B.3 Plan

**NEW CONTENT:**
- health and safety considerations (risk assessment and informed consent).

**Partially covered in:**
- Unit 7: Planning and Leading Sports Activities LO2 Be able to plan and lead an activity session *(Plan)*
- Unit 7: Planning and Leading Sports Activities LO4 Be able to assist in the planning and leading of a sports event *(Plan)*
- Unit 16: Leading Outdoor and Adventurous Activities LO2 Be able to plan and lead, under supervision, outdoor and adventurous activities *(Plan)*.

### Topic B.4 Lead

**Fully covered in:**
- Unit 7: Planning and Leading Sports Activities LO2 Be able to plan and lead an activity session *(Lead)*
- Unit 7: Planning and Leading Sports Activities LO4 Be able to assist in the planning and leading of a sports event *(Lead)*
- Unit 16: Leading Outdoor and Adventurous Activities LO2 Be able to plan and lead, under supervision, outdoor and adventurous activities *(Lead)*.

### Topic B.5 Measures of success

**NOT COVERED**

### Unit 6 – Learning aim C: review the planning and leading of sports activities

#### Topic C.1 Review

**Fully covered in:**
- Unit 7: Planning and Leading Sports Activities LO3 Be able to review their planning and leadership of a sports activity *(Review)*
- Unit 7: Planning and Leading Sports Activities LO5 Be able to review their planning and leadership of a sports event *(Review)*
- Unit 16: Leading Outdoor and Adventurous Activities LO3 Be able to review own planning and leadership of outdoor and adventurous activities *(Review)*.

#### Topic C.2 Targets for development

**Fully covered in:**
- Unit 7: Planning and Leading Sports Activities LO3 Be able to review their planning and leadership of a sports activity *(Set targets for improvement and development)*
- Unit 7: Planning and Leading Sports Activities LO5 Be able to review their planning and leadership of a sports event *(Set targets for improvement and development)*
- Unit 16: Leading Outdoor and Adventurous Activities LO3 Be able to review own planning and leadership of outdoor and adventurous activities *(Set targets for improvement).*