SPORT SCIENCE

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KS4 PERFORMANCE TABLES

Specification

OCR Level 1/Level 2

Cambridge National in Sport Science

J828

Version 1 (First teaching September 2022)

ocr.org.uk/cambridgenationals

Cambridge Nationals

OCR
Oxford Cambridge and RSA

Contents

1 Why choose OCR?

Choose OCR and you've got the reassurance that you're working with one of the UK's leading exam boards. We have developed our specifications in consultation with teachers, employers and subject experts to provide students with a qualification that's relevant to them and meets their needs.

We're part of Cambridge University Press & Assessment. We help millions of people worldwide unlock their potential. Our qualifications, assessments, academic publications and original research spread knowledge, spark curiosity and aid understanding around the world.

We work with a range of education providers, including schools, colleges, workplaces and other institutions in both the public and private sectors. Over 13,000 centres choose our A Levels, GCSEs and vocational qualifications including Cambridge Nationals and Cambridge Technicals.

1.1 Our specifications

We believe in developing specifications that help you bring the subject to life and inspire your students to achieve more**.** We've created teacher-friendly specifications based on extensive research and engagement with the teaching community. They're designed to be straightforward and accessible so that you can tailor the delivery of the course to suit your needs.

1.2 Our support

We have a range of support services to help you at every stage, from preparation to delivery.

- A wide range of high-quality creative resources including resources created by leading organisations within the industry
- Textbooks and teaching and learning resources from leading publishers. For more information about all the published support for the Cambridge Nationals that has been endorsed by OCR please go to the Cambridge Nationals page on our website
- Professional development for teachers to fulfil a range of needs. To join our training (either face-to-face or online) or to search for training materials, please go to the Professional Development page on our website
- Active Results is our free results analysis service to help you review the performance of individual students or whole schools
- ExamBuilder is our free question-building platform that helps you to build your own tests using past OCR exam questions
- OCR subject advisors provide information and support to centres including specification and non-exam assessment advice, updates on resources developments and a range of training opportunities. They work with subject communities through a range of networks to share ideas and expertise to support teachers

Further help and support

Whether you are new to OCR or already teaching with us, you can find useful information, help and support on our website. Or get in touch:

support@ocr.org.uk

@ocr_exams

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1.3 Aims and learning outcomes

Our Cambridge National in Sport Science will encourage students to:

- Understand and apply the fundamental principles and concepts of Sport Science
- Develop learning and practical skills that can be applied to real-life contexts and work situations
- Think creatively, innovatively, analytically, logically and critically
- Develop independence and confidence in using skills that are relevant to the Exercise, Physical Activity, Sport and Health sector and more widely
- Prepare participants for physical activity in ways which keeps them safe as well as learning how to react should injuries happen and how to recognise common medical conditions
- Learn how to conduct fitness tests, including interpreting and feeding back on the data you get from these as well as how to design, implement and evaluate fitness training programmes
- Develop knowledge of either how the body responds to exercise and understand how technology helps inform us of these changes, or a delve into the world of sports nutrition to understand how what we eat can impact our performance in sport
- Develop the skills of team working, research and planning and understand that sports performance goes far beyond just the simple physical movements of the human body.

1.4 What are the key features of this specification?

The key features of OCR's Cambridge National in Sport Science for you and your students are:

- A simple and intuitive assessment model, consisting of an externally assessed unit that focusses on knowledge and understanding and two skills-based Non Examined Assessment units (NEA)
- A choice of optional NEA units to allow you to tailor the content to your students' needs
- A specification developed with teachers specifically for teachers. The specification lays out the subject content clearly
- Clear and detailed marking criteria to help you accurately mark the NEA units
- The assessment is straightforward and manageable no matter the size of your cohort
- A flexible support package formed after listening to teachers' needs. The support package will help teachers to easily understand the requirements of the qualification and how it is assessed
- A team of OCR Subject Advisors who support teachers directly and manage the qualification nationally
- The specification has been designed to support your students progression to the Level 3 qualifications of their choice – Cambridge Technicals in Sport or A Level PE.

This qualification will help students to develop:

- The knowledge and skills required to progress into a career in the sports industry as well as providing them with a valuable science-based background if they choose to progress at into a more biological or medical field at Level 3
- Transferable skills, such as presentation skills, report writing team working, leadership and research skills.

All Cambridge Nationals qualifications offered by OCR are regulated by Ofqual, the Regulator for qualifications offered in England. The qualification number for OCR's Cambridge National in Sport Science is QN 603/7106/7.

2 Qualification overview

2.1 OCR Level 1/Level 2 Cambridge National in Sport Science at a glance

Qualification number	603/7106/7	**OCR Entry code**	J828
First entry date	01/09/2022	**Approved age range**	14-16
Guided learning hours (GLH)	120	**Performance information**	We've designed this qualification to meet the Department for Education (DfE) requirements for qualifications in the Technical Award category of the 14-16 performance tables.
Total qualification time (TQT)	150	**Eligible for funding**	It's designed to meet the funding requirements of a 14-16 study programme.
This qualification is suitable for students	• Aged 14-16 on a full-time study programme wanting to develop applied knowledge and practical skills in Sport Science • Who want to progress onto other related study, such as qualifications in Sports, Physical Education or Science areas • As it is designed to meet the Department for Education's characteristics for a Technical Award.		
Entry requirements	There is no requirement for students to achieve any specific qualifications before taking this qualification.		
Qualification requirements	Students must complete three units: • One mandatory externally assessed unit • One mandatory NEA unit • One optional NEA unit, from a choice of two.		
Assessment method/ model	Unit R180 is assessed by an exam and marked by us. Your teachers will assess the NEA units and we will moderate them.		
Assessment series each year	• January • June		
Terminal assessment	The exam must be taken in the final assessment series before qualification certification. The result from the exam taken in the final series will be the one that counts towards a student's overall grade.		
Grading	All results are awarded on the following scale: Level 2 – Distinction* (*2), Distinction (D2), Merit (M2), Pass (P2) Level 1 – Distinction (D1), Merit (M1), Pass (P1) and Fail/Unclassified.		
Exam resits	Students can resit the exam but the result from the exam taken in the series where students certificate would be the result to count towards performance measures.		

Qualification number	603/7106/7	OCR Entry code	J828
Repeat submission of students' NEA work	If you and your students feel they have not performed at their best during assessment of the NEA units, the students can, at your discretion, improve their work and resubmit it to you for assessment. You must be sure it's in the students' best interests to re-attempt the assessment. There is one re-submission opportunity. All work submitted (or re-submitted) must be based on the assignment that is live for the submission series. For information about feedback see section 6. The final piece of work must be completed solely by the student and teachers must not detail specifically what amendments should be made.		

2.2 Qualification Structure

For this qualification, students must achieve **three** units: one externally assessed and two Non Examined Assessment (NEA) units.

Key to units for this qualification:

M = Mandatory	Students must achieve this unit
O = Optional	Students must achieve one of these units
E = External assessment	We set and mark the exam
N = NEA	You assess this and we moderate it

Unit no.	Unit title	Unit ref. no. (URN)	Guided learning hours (GLH)	How are they assessed?	Mandatory or optional
R180	Reducing the risk of sports injuries and dealing with common medical conditions	M/618/5935	48	E	M
R181	Applying the principles of training: fitness and how it affects skill performance	F/618/5938	48	N	M
R182	The body's response to physical activity and how technology informs this	J/618/5939	24	N	O
R183	Nutrition and sports performance	F/618/5941	24	N	O

2.3 Purpose statement

OCR
Oxford Cambridge and RSA

OCR Level 1/Level 2 Cambridge National in Sport Science

Qualification number: 603/7106/7

Type of qualification: Technical Award

Overview

Who is this qualification for?

The OCR Level 1/Level 2 Cambridge National in Sport Science is aimed at students aged 14-16 years and will develop knowledge, understanding and practical skills that can be used in the Exercise, Physical Activity, Sport and Health sector.

You may be interested in this if you want an engaging qualification where you will use your learning in practical, real-life situations, such as:

- Understanding how to prevent and treat sporting injuries
- Understanding how different medical conditions can affect sports performance
- Applying the principles of training to fitness and skills development for sporting activities
- Understanding how to apply knowledge of good nutrition to improve sporting performance
- Understanding how the body systems change and develop in response to physical training
- Understanding how technology can assist in measuring the changes in your body during physical training.

This will help you to develop independence and confidence in using skills that would be relevant to the Exercise, Physical Activity, Sport and Health sector.

The qualification will also help you to develop learning and skills that can be used in other life and work situations, such as:

- Completing research
- Working with others
- Planning training programmes
- Evaluating and making recommendations to help improve performance
- Creating and delivering presentations
- Writing reports
- Leadership skills
- Healthy living and lifestyle skills.

This qualification will complement other learning that you're completing for GCSEs or vocational qualifications at Key Stage 4 and help to prepare you for further study, Apprenticeships or employment. More information about this is given below.

What will you study as part of the qualification?

You will study the key aspects of Sport Science. It will equip you with sound specialist knowledge and you will have the opportunity to apply what you learn through a number of practical experiences. This will involve you studying two mandatory units and one optional unit from a choice of two.

The two mandatory units are:

- **R180: Reducing the risk of sports injuries and dealing with common medical conditions**

  This is assessed by an exam.

  By completing this unit you will prepare as a participant to take part in physical activity in a way which minimises the risk of injuries occurring. It will also prepare you to know how to react to common injuries that can occur during sport and physical activity, and how to recognise the symptoms of some common medical conditions. Topics include:

  - Different factors which influence the risk and severity of injury
  - Warm up and cool down routines
  - Different types and causes of sports injuries
  - Reducing risk, treatment and rehabilitation of sports injuries and medical conditions
  - Causes, symptoms and treatment of medical conditions.

- **R181: Applying the principles of training: fitness and how it affects skill performance**

  This is assessed by a set assignment.

  By completing this unit, you will conduct a range of fitness tests, understand what they test and their advantages and disadvantages. You will also learn how to design, plan and evaluate a fitness training programme. You will then interpret the data collected from these fitness tests and learn how best to feed this back. Topics include:

  - Components of fitness applied in sport
  - Principles of training in sport
  - Organising and planning a fitness training programme
  - Evaluate own performance in planning and delivery of a fitness training programme.

The two optional units are:

- **R182: The body's response to physical activity and how technology informs this**

  This is assessed by a set assignment.

  By completing this unit you will gain understanding of how both the cardio-respiratory and musculo-skeletal systems provide you with the energy and movements needed to keep you exercising and in turn how exercise helps develop both systems. You will also learn about relevant technology and how this assists us in measuring changes in these systems. Topics include:

  - The cardio-respiratory system and how the use of technology supports different types of sports and their intensities
  - The musculo-skeletal system and how the use of technology supports different types of sports and their movements
  - Short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems
  - Long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems.

- **R183: Nutrition and sports performance**

  This is assessed by a set assignment.

  By completing this unit you will gain understanding of healthy, balanced nutrition. You will consider the necessity of certain nutrients and their role in enabling effective performance in different sporting activities. The knowledge you gain will be used to produce an appropriate, effective nutrition plan for a performer. Topics include:

  - Nutrients needed for a healthy, balanced nutrition plan
  - Applying differing dietary requirements to varying types of sporting activity
  - Developing a balanced nutrition plan for a selected sporting activity
  - How nutritional behaviours can be managed to improve sports performance.

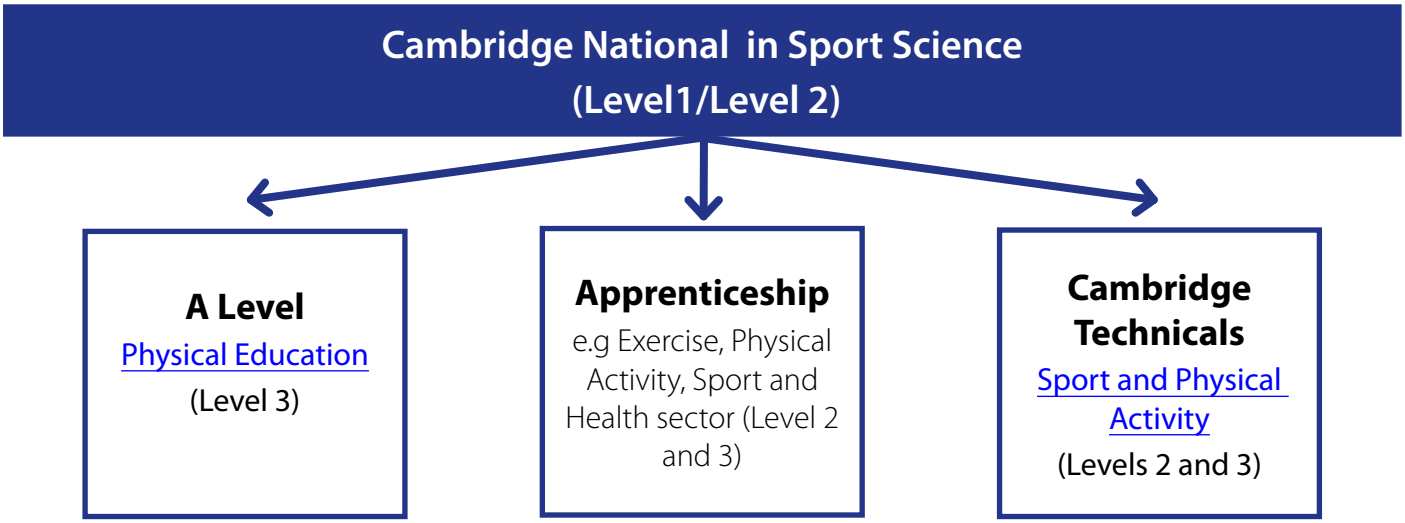
What knowledge and skills will you develop as part of this qualification and how might these be of use and value in further studies?

You will be able to work with independence to create material which reflects effective planning, development and evaluation, and an ability to demonstrate practical skills and qualities. You will apply knowledge, understanding and skills, identifying, selecting and using a range of sport Science approaches commonly used in the workplace and in higher education. You will be able to produce work that is complete and coherent, demonstrating independence and understanding. You will be able to:

- Recall, select and apply knowledge and understanding, using practical sporting examples
- Demonstrate knowledge and understanding of physical and psychological factors that affect performance and participation in sporting activities
- Identify, plan and carry out a range of activities and exercises to prepare for, and recover from, sporting activities
- Demonstrate awareness of how to meet specific needs when developing and delivering different sporting activity programmes
- Use some technical language and scientific terminology correctly
- Demonstrate evaluative skills.

These skills will help you progress onto further study in the Exercise, Physical Activity, Sport and Health sector. This may be Level 3 vocational qualifications, such as the Cambridge Technical in Sport Physical Activity, AS and A-Levels, such as Biology, Physical Education, Psychology, Science, Sport or an apprenticeship in roles such as Community activator coach, Leisure team members, Personal trainer or an Outdoor activity instructor.

The diagram below shows the possible progression routes for your further study:



Which subjects will complement this course?

- GCSE Biology
- GCSE Combined Science
- GCSE Food Preparation and Nutrition
- GCSE Media Studies
- GCSE Psychology

Further details

More information about the Cambridge National in Sport Science can be found in these documents:

Specification

Sample Assessment Material (SAM)

Guide to our Sample Assessment Material

Student Guide to NEA Assignments

3 About this qualification

3.1 Qualification size (GLH and TQT)

The size of the qualification is described in terms of Guided Learning Hours (GLH) and Total Qualification Time (TQT).

GLH indicates the approximate time (in hours) the teacher will spend supervising or directing study and assessment activities. We have worked with people who are experienced in delivering related qualifications to determine the content that needs to be taught and how long it will take to deliver.

TQT includes two parts:

- GLH
- an estimate of the number of hours a student will spend on unsupervised learning or assessment activities (including homework) to successfully achieve their qualification.

OCR Level 1/Level 2 Cambridge National in Sport Science is 120 GLH and 150 TQT.

3.2 Language

This qualification and its assessment materials are available in English only.

Only answers provided in English will be assessed.

3.3 Performance information

We've designed this qualification to meet the Department for Education (DfE) requirements for qualifications in the Technical Award category of the 14-16 performance tables.

You'll find information on performance tables for England on the Department for Education website.

4 Units

4.1 Guidance on unit content

This section describes what must be taught so that students can access all available marks.

4.1.1. Externally Assessed Unit (R180)

The externally assessed unit is made up of a number of topic areas. Each topic area has related teaching content that must be taught. A direct question may be asked about any content in the teaching content column.

The breadth and depth column helps to clarify the breadth and depth of teaching needed, and indicates the range of knowledge and understanding that may be assessed in the exam. This column also confirms any aspects that you do **not** need to teach in relation to the content as 'does not include' statements.

Knowledge and understanding

Students will need to **understand** the content unless the breadth and depth column identifies it as knowledge only.

- Any item(s) that should be taught as knowledge only will start with the word 'know' in the breadth and depth column.
- All other content is expected to be taught as understanding.

The table below explains what we mean by knowledge and understanding.

Knowledge	• Be able to identify or recognise a given item, for example on a diagram • Use direct recall to answer a question, for example the definition of a term.
Understanding	• To assess and evidence the perceived meaning of something in greater depth than straight identification or recall. • Understanding will be expressed and presented using terms such as: how; why; when; reasons for; benefits and drawbacks of; advantages and disadvantages of; purpose of; suitability of; recommendations for improvement; pros and cons; appropriateness of something to/in different contexts.

Students need to be taught the information in both the teaching content and breadth and depth columns.

4.1.2 NEA Units (R181–R183)

The NEA units are made up of a number of topic areas with associated teaching content which details what must be taught as part of each topic area.

The NEA units also have an exemplification column that provides more information about, and examples relating to, the teaching content. This helps to exemplify the teaching expected so that students are equipped to successfully complete their assignments.

4.1.3 Command words

Appendix B gives information about the command words that will be used in both the external assessments and the NEA marking criteria and the expectations of them.

4.1.4 Performance Objectives (POs):

Each Cambridge National qualification has related Performance Objectives. There are four Performance Objectives in the OCR Level 1/Level 2 Cambridge National in Sport Science.

Performance Objectives	
PO1	Recall knowledge and show understanding of Sport Science concepts
PO2	Apply knowledge and understanding of Sport Science concepts
PO3	Analyse and evaluate knowledge, understanding and performance
PO4	Demonstrate and apply sporting skills and processes relevant to Sport Science.

PO1 is only relevant to the exam. PO4 is only relevant to the NEA assessments.

The weightings of the Performance Objectives across the units is:

Performance Objective	Examined Assessment	Non Examined Assessment x 2	Overall weighting
PO1	17–21%	n/a	17–21%
PO2	14–16%	22%	36–38%
PO3	5–7%	20%	25–27%
PO4	n/a	18%	18%
Overall weighting of assessments	**40%** **70 raw marks** **80 UMS**	**60%** **120 raw marks** **120 UMS**	**100%** **190 raw marks** **200 UMS**

4.2 Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

Aims

Taking part in sport and physical activity puts the body under stress. Sports injuries can be caused in many ways, ranging from accidental to deliberate acts of foul play. They can also depend on various extrinsic and intrinsic factors. Knowing how to reduce the risk of injury when taking part in sport, and how to respond to injuries in a sport setting are vital skills in many roles within the sport and leisure industry. Millions of people in the UK are suffering from medical conditions that may influence their participation in sport and physical activity, but with knowledge and understanding of common medical conditions, along with the correct treatment and emergency procedures, more people can continue to participate in sporting activities in a safer environment.

In this unit you will learn how to prepare participants to take part in sport and physical activity in a way which minimises the risk of injuries occurring; prepare them to be able to respond to common injuries that can occur during sport and physical activity and to recognise the symptoms of some common medical conditions.

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

Students must be taught:

Topic Area 1: Different factors which influence the risk and severity of injury

Teaching content	Breadth and depth
1.1 Extrinsic factors	
1.1.1 Types of sports activity: □ How different sporting activities can influence types of injury	1.1 To include: • Compare and contrast how different extrinsic factors can influence the risk and severity of injury • How some extrinsic factors can influence other extrinsic factors or part of the same extrinsic factor, e.g. the effects that playing surfaces (1.1.3) can have on appropriate footwear (1.1.4); the effect officials (1.1.3) can have on participants (1.1.3) Consider the links with other topic areas: • Warm up/cool down routines (Topic Area 2) • Human interaction (1.1.3), psychological factors (1.2.2) and reasons for aggression (1.2.3) • Different types and causes of sports injuries (Topic Area 3) • Safety checks (4.1.1) • How weather conditions can affect medical conditions (Topic Area 5)
1.1.2 Coaching/Instructing/Leading: □ Knowledge of techniques/rules/regulations □ Experience □ Communication □ Supervision □ Ethical standards/behaviour	
1.1.3 Environment: □ Weather/temperature conditions □ Playing surface (natural and artificial) and surrounding area □ Human interaction ▪ Other performers/participants ▪ Officials ▪ Spectators	
1.1.4 Equipment: □ Protective equipment □ Performance equipment □ Clothing □ Footwear	

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

1.2 Intrinsic factors	
1.2.1 Individual variables: □ Gender □ Age □ Experience □ Weight □ Fitness levels □ Technique/ability □ Nutrition/hydration □ Medical conditions □ Sleep □ Previous/recurring injuries **1.2.2 Psychological factors, overview of:** □ Motivation □ Arousal □ Anxiety/stress □ Confidence □ Aggression ▪ Direct ▪ Channelled	1.2 To include: • Compare and contrast how different intrinsic factors can influence the risk and severity of injury • How some individual variables (1.2.1) can influence other individual variables e.g. weight of a participant can influence their fitness levels 1.2.1 To include: • Links with medical conditions (Topic Area 5) 1.2.2 and 1.2.3 To include: • Links with coaching (1.1.2) human interaction (1.1.3) Consider the links with: • Different types and causes of sports injuries (Topic Area 3) • Safety checks (4.1.1)
1.2.3 Reasons for aggression: □ Level of performance □ Retaliation □ Pressures to win (performer/coach/spectators) □ Decisions of officials □ Performance enhancing drugs **1.2.4 Mental strategies:** □ Mental rehearsal □ Imagery □ Selective attention	• 1.2.4 Links with warm up (2.1)

Topic Area 2: Warm up and cool down routines

Teaching content	Breadth and depth
2.1 Key components of a warm up	
2.1.1 Key components of a warm up: □ Pulse raising □ Mobility □ Dynamic stretching □ Skill rehearsal phase	2.1 To include: • The use of suitable components and examples, in the design of warm up routines and exercises/stretches that target different muscles/joints in the body Consider the links with: • Coaching/instructing/leading (1.1.2) • Equipment (1.1.4) e.g. resistance bands • Physiological and psychological benefits of a warm up (2.2) • Safety checks (4.1.1)

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

2.2 Physiological and psychological benefits of a warm up

2.2.1 Physiological benefits:

- □ Increase in muscle temperature
- □ Increase in heart rate
- □ Increase in flexibility of muscles and joints
- □ Increase in pliability of ligaments and tendons
- □ Increase in blood flow and oxygen to muscles
- □ Increase in the speed of muscle contraction

2.2.2 Psychological benefits:

- □ Heighten or control arousal levels
- □ Improve concentration/focus
- □ Increase motivation
- □ Increase confidence
- □ Mental rehearsal

2.2. To include:

- Compare and contrast the warm up components and the benefits on the cardio-respiratory and musculoskeletal systems
- Be aware of possible negative effects if no warm up is performed

Consider the links with:

- Key components of a warm up (2.1.1)
- Psychological benefits (2.2.2) and mental strategies (1.2.4)

2.3 Key components of a cool down

2.3.1 Pulse lowering

2.3.2 Stretching:

- □ Maintenance stretches
- □ Static stretches
- □ Proprioceptive Neuromuscular Facilitation (PNF)

2.3 To include:

- The use of suitable components and examples, in the design of cool down routines

Consider the links with:

- Coaching/instructing/leading (1.1.2)
- Physiological benefits of a cool down (2.4)
- Safety checks (4.1.1)

2.4 Physiological benefits of a cool down

2.4.1 Physiological benefits:

- □ Gradually lowers heart rate
- □ Gradually lowers temperature
- □ Circulates blood and oxygen
- □ Helps prevent blood pooling
- □ Gradually reduces breathing rate
- □ Removes waste products such as lactic acid
- □ Reduces risk of Delayed Onset of Muscle Soreness (DOMS)

2.4. To include:

- Compare and contrast the cool down components and the benefits on the cardio-respiratory and musculoskeletal systems
- To be aware of possible negative effects if no cool down is performed.

Consider the links with:

- Key components of a cool down (2.3)

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

Topic Area 3: Different types and causes of sports injuries

Teaching content	Breadth and depth
3.1 Acute injuries	
3.1.1 Overview of acute injuries: □ Sudden trauma □ Immediate impact and pain	3.1 To include: • Compare and contrast causes, symptoms and treatments of each acute injury • Ways of reducing risk of acute injuries • Examples of different body parts (bones/muscles/joints/tissue) that are susceptible to acute injuries Consider the links with: • Extrinsic factors (1.1) and intrinsic factors (1.2) • Reducing risk, treatment and rehabilitation of sports injuries and medical conditions (Topic Area 4)
3.1.2 Soft tissue and hard tissue injuries	
3.1.3 Strains: □ Torn muscle or tendon	
3.1.4 Sprains: □ Torn ligaments □ Anterior Cruciate Ligament (ACL)	
3.1.5 Skin damage: □ Abrasions/grazes □ Cuts/lacerations □ Contusions (bruises) □ Blisters	
3.1.6 Fractures: □ Open □ Closed	To include: • Links with stress fractures (3.2.5) as chronic injuries
3.1.7 Dislocations	
3.1.8 Head injuries: □ Concussion □ Possible links with head injuries and the onset of dementia and Alzheimer's	3.1.8 To include: • Links with types of sports activity (1.1.1)
3.2 Chronic injuries	
3.2.1 Overview of chronic injuries: □ Overuse □ Develop gradually over a period of time □ Repetitive movement	3.2.1 To include: • Compare and contrast causes, symptoms and treatment of each named chronic injury. • Ways of reducing risk of chronic injuries
3.2.2 Tendonitis: □ Achilles □ Rotator cuff □ Patellar	To include: • Links with fractures (3.1.6) as acute injuries 3.2 To include links with: • Individual variables (1.2.1) • Reducing risk, treatment and rehabilitation of sports injuries and medical conditions (Topic Area 4)
3.2.3 Epicondylitis: □ Lateral epicondylitis (Tennis elbow) □ Medial epicondylitis (Golfers elbow)	
3.2.4 Shin splints	
3.2.5 Stress fractures	

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

Topic Area 4: Reducing risk, treatment and rehabilitation of sports injuries and medical conditions

Teaching content	Breadth and depth
4.1 Measures that can be taken before and during participation in sport or physical activity to reduce risk and severity of injury/medical conditions	
4.1.1 Safety checks: • Risk assessments, level of risk ▪ Control measures for the removal of hazards and reduction of risks • Characteristics of the individual/group • Group size	4.1. To include: • Examples of measures and responses for different injuries (3.1 and 3.2) and medical conditions (Topic Area 5) 4.1.1 To include links with: • Extrinsic factors (1.1) and Intrinsic factors (1.2) • Interpreting and planning a risk assessment
4.1.2 Strategies to help reduce the risk of sports injuries and medical conditions: □ Medicals □ Screening □ National Governing Body (NGB) policies	
4.1.3 Emergency Action Plans (EAP): □ Emergency personnel □ Emergency communication □ Emergency equipment	
4.2 Responses and treatment to injuries and medical conditions in a sporting context	

4.2.1 SALTAPS on-field assessment routine, is an acronym for (See, Ask, Look, Touch, Active, Passive, Strength)	4.2. To include:
	• Advantages of using different types of responses and treatment for different injuries/medical conditions and the different times when treatment can be used:
	  ○ Prior to performance
	  ○ During performance
	  ○ Immediately after injury
	  ○ As part of the longer-term rehabilitation process

4.2.2 DRABC is an acronym for (Danger, Response, Airway, Breathing, Circulation)	
4.2.3 Recovery position: □ Unconscious performers who are breathing and have no other life-threatening conditions	
4.2.4 PRICE therapy is an acronym for (Protection, Rest, Ice, Compress, Elevate)	
4.2.5 Use of X-rays to detect injury	4.2.5 Do **not** include: • A technical understanding of how X-rays work

4.2.6 Overview of treatments/therapies:
□ Massage
□ Ultrasound
□ Electrotherapy
□ Hydrotherapy
□ Cryotherapy
□ Contrast therapy
□ Painkillers
  ▪ Ibuprofen
□ Support
  ▪ Kinesiology taping/neoprene/bandaging
□ Immobilisation
  ▪ Cast/splint/sling
	4.2.6 To include:
	• Examples of different types of treatment and the benefits of each
	
	Consider the links with:
	• Warm up and cool down routines (Topic Area 2)
	• Know that stretching (2.3.2) can also be a form of treatment (2.3.2)

4.2.7 Different psychological effects of dealing with injuries and medical conditions including treatment and long-term rehabilitation	Consider the links with psychological factors (1.2.2) and mental strategies (1.2.4)

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

Topic Area 5: Causes, symptoms and treatment of medical conditions

Teaching content	Breadth and depth
5.1 Asthma	
5.1.1 Overview of asthma and asthma attacks	5.1 To include: • Compare and contrast causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions • How to manage asthma when participating in sport/exercise
5.1.2 Causes/triggers of asthma: □ Environment □ Exercise	
5.1.3 Common Symptoms of asthma: □ Coughing □ Wheezing □ Shortness of breath □ Tightness in the chest	
5.1.4 Treatment: □ Reassurance □ Inhalers/nebulisers	
5.2 Diabetes	
5.2.1 Overview of Type 1 and Type 2 diabetes - differences between Type 1 and Type 2 in relation to: □ Age □ Lifestyle	5.2 To include: • Comparing and contrasting causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions • How to manage diabetes when participating in sport/ exercise To include: • Links with dehydration (5.5.9)
5.2.2 Causes of Type 1 and Type 2 diabetes: □ Type 1 diabetes – the body is unable to produce insulin □ Type 2 diabetes – the body does not produce enough insulin, or insulin does not work properly	
5.2.3 Common symptoms of Type 1 and Type 2 diabetes: □ Increased thirst □ Urinating more often □ Extreme tiredness □ Weight loss □ Cuts take a long time to heal	
5.2.4 Treatment of Type 1 and Type 2 diabetes: □ Insulin/glucose □ Lifestyle changes □ Diet □ Exercise	
5.2.5 Monitoring and treatment of different blood sugar levels: □ Hypoglycaemia (Hypos) - low blood sugar □ Hyperglycaemia - high blood sugar	

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions

5.3 Epilepsy

5.3.1 Overview of epilepsy: □ Seizures	To include: • Comparing and contrasting causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions • How to manage epilepsy when participating in sport/exercise 5.3.3 To include common symptoms for each of: • **Eyes** – for example, staring blankly and fluttering • **Mouth** – for example, biting tongue and random noises • **Limbs** – for example, stiffness and jerking movements
5.3.2 Common causes/triggers of epilepsy: □ Severe head injuries □ Anxiety/stress □ Tiredness/lack of sleep	
5.3.3 Common symptoms of seizures affecting different parts of the body: □ Eyes □ Mouth □ Limbs	
5.3.4 Treatment: □ Anti-epileptic drugs (AEDs) □ Ketogenic diet	

5.4 Sudden Cardiac Arrest (SCA)

5.4.1 Overview of SCA	5.4 To include: • Comparing and contrasting causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions • Know the difference between cardiac arrest and a heart attack
5.4.2 Causes of SCA: □ Underlying genetic heart conditions □ Intense physical activity □ Sudden trauma	
5.4.3 Symptoms of SCA: □ Unconscious □ Breathing difficulties	
5.4.4 Treatment for SCA: □ Defibrillators □ Lifestyle changes	

5.5 Other medical conditions

5.5.1 Overview of hypothermia	5.5 To include: • Comparing and contrasting causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions • How to manage dehydration (5.5.9) when participating in sport/exercise Consider the links with: • Changing weather/temperature conditions (1.1.3) • Clothing (1.1.4)
5.5.2 Causes of hypothermia: □ Body temperature drops below 35°c □ Prolonged exposure to cold/wet conditions	
5.5.3 Symptoms of hypothermia: □ Shivering □ Blue lips/skin □ Slurred speech □ Tiredness/confusion □ Slow breathing	

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions	
5.5.4 Treatment for hypothermia: □ Remove wet clothing/wrap in blankets and cover head □ Give a warm and sugary non-alcoholic drink	5.5.4 To include: • Know how hypothermia should not be treated – Do not use a hot bath or hot water bottle or rub body parts
5.5.5 Overview of heat exhaustion	
5.5.6 Causes of heat exhaustion: □ Body temperature of 38°c or above □ Strenuous physical activity □ Not enough water intake	
5.5.7 Symptoms of heat exhaustion: □ Excessive sweating. □ Headache/dizziness □ Being very thirsty □ Feeling or being sick □ Rapid pulse and/or breathing	
5.5.8 Treatment for heat exhaustion: □ Move to a cool place/cool their skin □ Get them to drink plenty of water	
5.5.9 Overview of dehydration.	5.5.9 To include: • Links with diabetes (5.2) • How to manage dehydration (5.5.9) when participating in sport/exercise
5.5.10 Causes of dehydration: □ Loss of bodily fluids	
5.5.11 Symptoms of dehydration: □ Feeling thirsty □ Fatigue □ Dark yellow urine and infrequent urination □ Dry mouth/lips	
5.5.12 Treatment for dehydration: □ Drink plenty of water □ Rehydration sachets	

Assessment guidance

This unit is assessed by an exam. The exam is 1 hour and 15 minutes. It has two Sections – Section A and Section B.

- Section A has 25 marks
- Section B has 45 marks
- The exam has 70 marks in total.

This will be conducted under examination conditions. For more details refer to the Administration area.

A range of question types will be used in the exam, but it will always require students to use the skills of analysis and evaluation.

The Sport Science, 'Exploring our exams: a guide to our sample assessment material' gives more information about the layout and expectations of the exam.

Section A	• This will have a total of 25 marks, made up of an MCQ style questions and a number of short to medium response questions.
Section B	• This will have context-based questions. Students will be presented with a short scenario and will apply their knowledge of sport concepts to produce relevant responses • It will include short/medium answer questions, extended response analysis and evaluation questions • *all topic areas and its teaching content may be assessed either as knowledge, understanding or as applied practical examples across a range of sporting activities.

Synoptic assessment

This unit allows students to gain underpinning knowledge and understanding relevant to the qualification and sector. The NEA units draw on and strengthen this learning with students applying their learning in a practical, skills-based way. The synoptic grids at the end of the NEA units show these synoptic links.

More information about synoptic assessment within this qualification can be found in section 5.2 synoptic assessment.

4.3 Unit R181: Applying the principles of training: fitness and how it affects skill performance

Aims

Everyone is different. People have different needs and different goals, particularly when it comes to their fitness to perform in different sporting activities; but how do you establish those needs?

Fitness testing should be completed before any intense fitness training programme begins. By measuring the current fitness levels of yourself or others, you can set realistic goals and plan how to reach these goals.

In this unit you will learn how to conduct a range of fitness tests, what they test and their advantages and disadvantages. You will also learn how to design, plan and evaluate a fitness training programme. This will give you the background knowledge you need to be able to plan and deliver appropriate fitness tests, some of which will be adapted to suit the skills of the sporting activity. You will then interpret the data collected from fitness tests and learn how best to feed this back so that participants can go on to make informed decisions about their fitness training.

For all topic areas and content below, please select your activities from the Approved Activity list. Please see the OCR website for the approved list of activities for this unit.

Unit R181: Applying the principles of training: fitness and how it affects skill performance

Topic Area 1: Components of fitness applied in sport

Teaching content	Exemplification
1.1 Relevance of components of fitness to different sports	
1.1.1 The definition of, and suitable fitness tests used, to measure each component of fitness: □ Cardiovascular endurance/ stamina □ Muscular endurance □ Speed □ Strength □ Power □ Agility □ Balance □ Flexibility □ Coordination □ Reaction time	1.1.1 Any suitable test may be chosen. Tests may be adapted for students with disabilities who are unable to access traditionally used tests
1.1.2 Fitness component requirements of sports: □ How each component is important in two different sports □ Cover all components listed in 1.1.1	1.1.2 Practical examples showing importance of each component, may include: • Demonstrating skills in drills • Covering fitness requirements in two sports, and if a team game the position played in • Opportunity to compare and contrast the fitness components across two different sports and/or positions

Unit R181: Applying the principles of training: fitness and how it affects skill performance	
1.1.3 Justification of most important components of fitness: □ The two most important components in each of two sports □ In a pressured drill to show how these two fitness components relate to effectiveness in a competitive situation	1.1.3 Examples must include the most important components for both sports and, if appropriate, positions within those sports: • Pressured drills could be against time or an opponent
1.2 Assess components of fitness	
1.2.1 Fitness tests for components of fitness: □ Cardiovascular endurance/ stamina □ Muscular endurance □ Speed □ Strength □ Power □ Agility □ Balance □ Flexibility □ Coordination □ Reaction time	1.2.1 To include: • How to conduct appropriate fitness tests for each component of fitness
1.2.2 Collect and interpret the results of fitness tests: □ Against normative data □ Validity □ Reliability	1.2.2 To include appropriate recording of all: • Results from all tests • Advantages and disadvantages of tests
1.2.3 Strengths and areas of improvement of each fitness component: □ Strengths □ Areas of improvement	1.2.3 To include: • The strengths and areas of improvement indicated by each fitness test result • How the fitness test results indicate the likelihood of success in each sport
1.3 Application of components of fitness to skill performance	
1.3.1 Devising skill based fitness tests: □ Realistic to a full performance situation □ Procedures □ How to record results	1.3.1 To include: • How the fitness component is used in sport • What skills can be hindered if the performer has poor fitness • Devising a skill test that combines both fitness and skills such as dribbling at speed
1.3.2 Conduct the tests devised	1.3.2 To include: • Completing drills/tests adapted for skills • Undertake the skill test/drill that will improve the identified components of fitness from 1.3.1
1.3.3 How to record results of skill based fitness tests: □ Use of appropriate units	1.3.3 To include: • Units or results that actually measure the fitness component being looked at e.g. speed in seconds

Unit R181: Applying the principles of training: fitness and how it affects skill performance

Topic Area 2: Principles of training in sport

Teaching content	Exemplification
2.1 Principles of training and goal setting in a sporting context	
2.1.1 The definition and application of each principle of training and goal setting: □ SPOR principle ▪ Specificity ▪ Progression ▪ Overload ▪ Reversibility □ FITT principle ▪ Frequency ▪ Intensity ▪ Time ▪ Type □ SMART goals ▪ Specific ▪ Measurable ▪ Achievable ▪ Realistic ▪ Time-bound	2.1.1 To include: • Justification of principles and goal setting within training programme
2.2 Methods of training and their benefits	
2.2.1 Advantages and disadvantages of the structure of each training method: □ Continuous training □ Fartlek training □ Interval training □ Circuit training □ Plyometrics □ Weight/resistance training □ HIIT (High Intensity Interval Training)	2.2.1 To include: • The advantages and disadvantages of each method for sporting activities • Appropriateness of each method for the selected sporting activities
2.2.2 Aerobic exercise: □ Characteristics of aerobic exercise: ▪ Intensity ▪ Duration ▪ Oxygen consumption ▪ Methods of training aerobically **2.2.3 Anaerobic exercise:** □ Characteristics of anaerobic exercise ▪ Intensity ▪ Duration ▪ Oxygen consumption ▪ Methods of training anaerobically	2.2.2 and 2.2.3 To include: • Comparing and contrasting the differences between aerobic and anaerobic exercise

Unit R181: Applying the principles of training: fitness and how it affects skill performance

Topic Area 3: Organising and planning a fitness training programme

Teaching content	Exemplification
3.1 Factors when designing a fitness training programme	
3.1.1 Considerations to inform planning: □ Facilities/equipment □ Safety/risk assessments □ Aims/goals/objectives □ Current fitness levels/injuries □ Organisation □ Environment □ Skills to be improved	**3.1.1 The planning considerations listed in an action plan may include:** • Correct equipment/facilities used • Duration of the training programme (e.g. suitable length to achieve goals) • Suitability of activities (e.g. activities meet the needs of the subject, activities target specific areas) • Organisation of activities (e.g. variety of training methods, sufficient rest days) **To include links with principles and goal setting (2.1)**
3.1.2 Applying principles of training: □ SPOR □ FITT	3.1.2 How SPOR and FITT are used within a training programme to improve success
3.2. Planning a fitness based training programme	
3.2.1 Elements of training programmes: □ Suitable warm up and cool down □ Activities/main content of programme □ Duration of plan □ Duration of sessions □ Equipment and facilities □ Coaching points □ Adaption of programme based on each session and mid term testing	3.2.1 To include: • Applying understanding gained in 3.1 to the creation of action plans for fitness component improvement
3.2.2 How to monitor progress and adapt a programme: □ Using pre and mid term tests to adapt/improve a programme	3.2.2 To include: • Plans can be adapted to avoid over/undertraining as well as injury and keep the performer motivated
3.3 Recording results from fitness training programme	
3.3.1 Post programme tests: □ Skill based tests □ Fitness tests	3.3.1 To include: • Comparison of performance predictions versus actual results • Whether retaking tests would change outcomes
3.3.2 Achievement recognised: □ Meeting SMART goals □ Results from tests	

Unit R181: Applying the principles of training: fitness and how it affects skill performance	
Topic Area 4: Evaluate own performance in planning and delivery of a fitness training programme	
Teaching content	**Exemplification**
4.1 Effectiveness of a fitness training programme	
4.1.1 Reflections on the fitness training programme considering the: • Goals set • Training methods used • Fitness component links correctly to skill tests	
4.1.2 Strengths and areas for improvement of the fitness training programme: • Reasons for success and failure	4.1.2 To include: • Strengths and areas for improvement of the training programme
4.1.3 Further development suggestions for improvements to the fitness training programme	4.1.3 To include: • How the success rate of the programme could be improved if it were repeated

Marking criteria

Section 6.4 provides full information on how to mark the NEA units and apply the marking criteria. The marking criteria command words are further explained in Appendix B Command words.

The tables below contain the marking criteria for the tasks for this unit. If a student's work does not meet Mark Band 1 (MB1) criteria for any task, you must award zero marks for that task.

Unit R181 – Topic Area 1: Components of fitness applied in sport		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
Fitness tests are **briefly** described with **limited** reference to the protocols. Includes limited data and **briefly** outlines what it means to their fitness for the activities.	Appropriate fitness tests are **adequately** described with **sound** reference to the protocols. **Adequately** analyses the data from each test and what it means to their fitness for the activities.	Appropriate fitness tests are described in **detail** with **clear** reference to the protocols. **Comprehensively** analyses the data from each test and what it means to their fitness for the activities.

Unit R181 – Topic Area 1: Components of fitness applied in sport		
MB1: 1–3 marks	**MB2: 4–6 marks**	**MB3: 7–9 marks**
Few skills are **briefly** linked to components of fitness, may include limited examples. Demonstrates a **limited** range of skills relevant to the components of fitness.	A **range** of skills are linked to components of fitness, with **sound** and relevant examples given for each. Demonstrates a good **range** of skills relevant to the components of fitness.	A **wide range** of skills are linked to components of fitness in **detail**, with **clear** and relevant examples given for each. Confidently, demonstrates a **wide range** of well developed skills relevant to the components of fitness.
MB1: 1–3 marks	**MB2: 4–6 marks**	**MB3: 7–9 marks**
Tests are described with **basic** examples of how they also measure an appropriate component of fitness. Includes some strengths and weaknesses of the data and **briefly** outlines what it means to their fitness for the activities.	Tests are described with **adequate** relevant examples of how they also measure an appropriate component of fitness. **Adequately** analyses the strengths and weaknesses of the data from each test and what it means to their fitness for the activities.	Tests are described in **detail** with **clear** and relevant examples of how they also measure an appropriate component of fitness. **Comprehensively** analyses the strengths and weaknesses of the data from each test and what it means to their fitness for the activities.

Unit R181 – Topic Area 2: Principles of training in sport		
MB1: 1–5 marks	**MB2: 6–10 marks**	**MB3: 11–15 marks**
A **brief** outline of SPOR and/or FITT principles and **basic** application to their selected sporting activity. A **brief** outline of SMART goals and **basic** application to their selected sporting activity. **Few** benefits outlined of applying the principles to the training programme.	SPOR and FITT principles are described with **adequate** relevant examples given for each aspect of their selected sporting activity. SMART goals are described with **adequate** relevant examples given for each aspect of their selected sporting activity. **Adequately** analyses the benefits of applying the principles to the training programme.	SPOR and FITT principles are described in **detail** with **clear** and relevant examples given for each aspect of their selected sporting activity. SMART goals are described in **detail** with **clear** and relevant examples given for each aspect of their selected sporting activity. **Comprehensively** analyses the benefits of applying the principles to the training programme.
MB1: 1–3 marks	**MB2: 4–6 marks**	**MB3: 7–9 marks**
A **brief** outline of their selected training methods, including a **basic** comparison of aerobic and anaerobic exercise.	**Adequately** analyses their selected training methods, including **sound** comparison of aerobic and anaerobic exercise.	**Comprehensively** analyses their selected training methods, including a **clear and detailed** comparison of aerobic and anaerobic exercise.

Unit R181 – Topic Area 3: Organising and planning a fitness training programme		
MB1: 1–4 marks	**MB2: 5–10 marks**	**MB3: 11–14 marks**
Produces a **basic** plan which considers a **limited** number of requirements for an effective and safe fitness training programme. Produces a **basic** risk assessment which considers **few** of the requirements for a safe fitness training programme.	Produces a mostly appropriate and **sound** plan which considers **some** of the requirements for an effective and safe fitness training programme. Produces an appropriate and **adequate** risk assessment which considers **some** of the requirements for a safe fitness training programme.	Produces a fully appropriate and **comprehensive** plan which considers **most** of the requirements for an effective and safe fitness training programme. Produces an appropriate and **comprehensive** risk assessment which considers **most** of the requirements for a safe fitness training programme.

Unit R181 – Topic Area 4: Evaluate own performance in planning and delivery of a fitness training programme		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
Outlines a **few** areas that went well and did not go well in the planned fitness training programme. **Briefly** outlines a **few** areas that needed to be adapted in the planned fitness training programme. Makes **basic** suggestions for altering the plan going forward. **Limited** description of the effectiveness of the fitness training programme. An **attempt** to reference the goals and objectives is made.	Describes **some** areas that went well and did not go well in the planned fitness training programme. Describes **some** areas that needed to be adapted in the planned fitness training programme with **some** reflection and analysis when altering the plan. **Adequate** description of the effectiveness of the fitness training programme. Makes **some** reference to the goals and objectives.	**Comprehensively** describes **most** areas that went well and did not go well in the planned fitness training programme. **Comprehensively** describes **all** areas that needed to be adapted in the planned fitness training programme. Shows **detailed** analysis when altering the plan with **justified** suggestions. **Comprehensive** analysis of the effectiveness of the fitness training programme. Makes **clear and detailed** reference to the goals and objectives.

Assessment guidance

Each section of the marking criteria focuses on a different aspect of student achievement. There should be no overlap between achievement credited for the different sections – although the same piece of work might be assessed in different sections, each different assessment will focus on a different aspect of that work. You should use the comments section of the Unit Recording Sheets to explain their decisions.

Tasks	Assessment guidance
Task 1	• Assesses students' research skills and information gathering. Students should ensure that they carry out research and use this for their written findings referencing where they have found information for their fitness tests. This should be the students' own work and not just the research material they have found, as this does not demonstrate understanding by the students. Students will undertake the selected fitness tests relevant for their activities and interpret their results data. • Students may research and select the same tests for the same or different sporting activities. Although this is allowed, teachers must ensure that the evidence a student submits for their set assignment is not similar to other students in the cohort. • However, the second part of this task, where students complete the fitness tests and interpret their data, will be unique for each student.
Topic area 2	• Assesses students' research of components of fitness relevant to their skills in two selected sporting activities (activities). They will design tests for two main skills relevant to their selected activities, using this information. Students will do the skill tests and collate the results data.
Topic area 3	• Assess students' use of the principles of training (SPOR and FITT) and SMART goals as well as how they apply these to training programmes. Students will describe the benefits and drawbacks of each training method and include the differences between aerobic and anaerobic exercise. • Students may discuss and describe the same principles of training for the same or different sporting activities. Although this is allowed, teachers must ensure that the evidence a student submits for their set assignment is not similar to other students in the cohort.
Topic area 4	• Assesses students' planning and understanding of sporting activity (activity) requirements and takes into account the appropriate principles of training. Students must develop a six-week fitness training programme plan that must include aims of the programme, appropriate equipment and include risk assessments that takes into account relevant safety considerations. We have provided a risk assessment template for you to give to your students.
Topic area 5	• Assesses the student's evaluation of post test results. This must be completed once the six-week fitness programme has been completed, when students can compare pre and post test results for the fitness programme. This should include strengths and areas that need improving, adaption to their programme, and discussion on how it could be improved on in the future.

Synoptic assessment

Some of the knowledge, understanding and skills required when completing this unit will draw on the learning developed in Unit R180. The following table details where these synoptic links can be found:

R181: Applying the principles of training: fitness and how it affects skill performance		Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions	
Topic Area		**Topic Area**	
1	Components of fitness applied in sport	1	Different factors which influence the risk and severity of injury
		5	Causes, symptoms and treatment of medical conditions
3	Organising and planning a fitness training programme	2	Warm up and cool down routines
		3	Different types and causes of sports injuries

More information about synoptic assessment within this qualification can be found in section 5.2 Synoptic assessment.

4.4 Unit R182: The body's response to physical activity and how technology informs this

Aims

When you exercise, your muscles, skeleton, heart, and lungs all contribute to help you perform to the best of your ability. Each of these systems work together to help you move and take part in exercise and sport. Technology can help to inform you of the changes happening in your body and guide your training and participation.

In this unit you will learn to understand how both the cardio-respiratory and musculo-skeletal systems provide you with the energy and movements needed to keep you exercising and in turn how exercise helps develop both of these systems.

R182: The body's response to physical activity and how technology informs this

Topic Area 1: The cardio-respiratory system and how the use of technology supports different types of sports and their intensities

Teaching content	Exemplification
1.1 Components, function and role of cardio-respiratory system during exercise	
1.1.1 Components: □ Heart – ventricles, atria, valves □ Blood cells vessels – arteries, veins, capillaries □ Respiratory system – trachea, lungs, alveoli, diaphragm **1.1.2 Function and role:** □ Heart rate / pulse rate □ Blood pressure – stroke volume and cardiac output □ Gaseous exchange – inhalation and exhalation	To include: • How the different components of the cardio-respiratory system are involved in the role during physical activity • Different stages of a warm up • Different intensities of performance – short/high intensity, endurance, and strength based • How to apply the components of the cardio-respiratory system to the role played when participating in physical activity; in connection with the three functions and roles (1.1.2)
1.2 Cardio-respiratory sports technology	
1.2.1 Technology that can inform how the cardio-respiratory system is responding whilst performing in sport during warm up and performance **1.2.2** Information that technology can give sports performers on their long-term participation in physical activity **1.2.3** The benefits and drawbacks of sports technology to the sports performer	To include aspects such as: • Long-term participation refers to taking part in activity over a period of many years • Wearable technology • Technology that is based in a laboratory and/or needs laboratory equipment • Field based technology • Difference and similarities between technology used by a beginner to that of an elite sports person

R182: The body's response to physical activity and how technology informs this

Topic Area 2: The musculo-skeletal system and how the use of technology supports different types of sports and their movements

Teaching content	Exemplification
2.1 The components and role of the musculo-skeletal system in producing movement	
2.1.1 Different components: □ Major bone groups: ▪ Upper body - cranium, scapula, clavicle, humerus, radius, ulna, ribs, vertebrae ▪ Lower body - femur, tibia, fibula, patella □ Skeletal muscle groups: ▪ Upper body - biceps, triceps, abdominals, pectorals, latissimus dorsi, deltoids, trapezius ▪ Lower body - hamstrings, soleus, gluteals, quadriceps, gastrocnemius □ Synovial joints - Ball and socket, Hinge, Gliding, Pivot □ Connective tissue - Ligaments, Tendons, Cartilage **2.1.2 The role of the components in producing the types of movement:** □ Flexion □ Extension □ Abduction □ Adduction □ Rotation □ Circumduction	To include: • Components of the musculo-skeletal system and apply these to specific movement at the different types of joints • An awareness of the role each of the components has in producing movement using examples from sport • Recognition of how different joints, muscles and bones produce similar movements, such as the knee and elbow joints • Relevant application to sports chosen • Examples of the Musculo-skeletal system: ○ Synovial joint of the knee has the major bones of the femur, tibia, fibula, patella which are connected by ligaments and are protected by cartilage ○ The muscles connected to the bones in the lower body are the quadriceps that produces extension, this can be seen in running when you straighten /extend your knee to take a step ○ The hamstring produces flexion, this can be seen in football when you bring your leg back to prepare to kick a ball ○ The muscles are connected to the bones by tendons
2.2 Musculo-skeletal sports technology	
2.2.1 Technology that can inform how the musculo-skeletal system is responding to short- and long-term participation in physical activity **2.2.2** The benefits and drawbacks of this technology to the sports performer	Examples of wearable technology may include: • Technology that is based in a laboratory and/or needs laboratory equipment • Field based technology • Difference and similarities between technology used by a beginner to that of an elite sports person

R182: The body's response to physical activity and how technology informs this

Topic Area 3: Short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems

Teaching content	Exemplification
3.1 The different short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems	
3.1.1 Changes in the: □ Heart rate, stroke volume, cardiac output □ Breathing rate, gaseous exchange □ Range of movement of joints	To include: • What responses will occur because of short-term exercise, such as the varying intensities of each stage of a warm up and why these responses will happen • How this can be a benefit to the sports performer

Topic Area 4: Long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems

Teaching content	Exemplification
4.1 The long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems	
4.1.1 Changes: □ In muscle size and strength □ In resting heart rate/stroke volume/cardiac output □ In heart rate recovery □ In flexibility □ In muscle recovery / DOMs / Lactic acid □ In lung capacity □ When participating in to different intensities of sporting activities including: ▪ Short high intensity sports ▪ Endurance sports ▪ Strength based sports	To include: • What adaptations could occur because of long-term participation in exercise and why these occur • Comparisons of different intensities and performance duration for performers and discuss benefits and drawbacks on long-term exercise for the participant

Marking criteria

Section 6.4 provides full information on how to mark the NEA units and apply the marking criteria. The marking criteria command words are further explained in Appendix B Command words.

The tables below contain the marking criteria for the tasks for this unit. If a student's work does not meet Mark Band 1 (MB1) criteria for any task, you must award zero marks for that task.

Unit R182 – Topic Area 1: The cardio-respiratory system and how the use of technology supports different types of sports and their intensities **Topic Area 2: The musculo-skeletal system and how the use of technology supports different types of sports and their movements** **Topic Area 3: Short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems**		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
Gives a **basic** outline of the techniques used to gather cardio-respiratory and musculo-skeletal systems data before and after completing their training activity. Supported with **limited** data.	**Adequately** describes the techniques used to gather cardio-respiratory and musculo-skeletal systems data before and after completing their training activity. Supported with an **adequate** range of data showing **some** of the changing variables.	**Comprehensively** describes the techniques used to gather cardio-respiratory and musculo-skeletal systems data before and after completing their training activity. Supported with **a wide range** of data **clearly** showing **all** the changing variables.
Briefly outlines short-term responses of both the cardio-respiratory and musculo-skeletal systems to the training activity. Gives **limited** or no explanation of why these have occurred.	**Sound** links are made between the differing intensities in the training activities, and the short-term responses of both the cardio-respiratory and musculo-skeletal systems. Gives **some** explanation of why these have occurred.	**Complex** links are made between the differing intensities in the training activities, and the short-term responses of both the cardio-respiratory and musculo-skeletal systems. **Comprehensively** discusses why these have occurred.
Briefly outlines what benefits these short-term responses could make to their performance in their selected sport activity.	**Adequately** explains what benefits these short-term responses could make to their performance in their selected sport activity.	**Clearly** explains what benefits these short-term responses could make to their performance in their selected sport activity.

Unit R182 – Topic Area 1: The cardio-respiratory system and how the use of technology supports different types of sports and their intensities Topic Area 2: Musculo-skeletal system and how the use of technology supports different types of sports, and their movements Topic Area 4: Long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
The long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems are **briefly** described and are supported with **basic** examples from their selected sport activity. Outlines **few** adaptations and makes **basic** suggestions as to why they have occurred, using **limited** examples from their selected sport activity. **Limited** discussion of the long-term benefits and/or drawbacks to them in their selected sport activity.	The long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems are **adequately** discussed and supported with a **range** of examples from their selected sport activity. Describes **some** adaptations and provides **some** explanation as to why they have occurred, using a **range** of examples from their selected sport activity. **Adequately** discusses the long-term benefits and drawbacks to them as a performer, using a **range** of examples from their selected sport activity.	The long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems are **comprehensively** discussed and supported with a **wide range** of well-developed examples from their selected sport activity. Describes **in detail** adaptations and provides **clear** explanations why they have occurred, using a **wide range** of **well-developed** examples from their selected sport activity. Discusses in **detail** the long-term benefits and drawbacks of the adaptations to them as a performer, using a **wide range** of examples from their selected sport activity.

Unit R182 – Topic Area 1: The cardio-respiratory system and how the use of technology supports different types of sports and their intensities		
MB1: 1–3 marks	**MB2: 4–7 marks**	**MB3: 8–10 marks**
Briefly outlines a type of technology that provides them as a performer **or** their coach with information regarding the cardio-respiratory system during training and participation in their selected activity. **Briefly** outlines how the technology can maximise benefits **and/or** minimise drawbacks for long-term participation in their selected activity.	**Adequately** describes a **range** of technology and the information it provides them as a performer **and/or** their coach with information regarding the cardio-respiratory system to support them during training and participation in their selected activity. **Adequately** explains how the technology can maximise benefits **and** minimise drawbacks for long-term participation in their selected activity.	**Comprehensively** describes how a **wide range** of technology provides them as a performer **and** their coach with information regarding the cardio-respiratory system to support them during training and to maximise participation in their selected activity. **Fully** explains how the technology can maximise benefits **and** minimise drawbacks for long-term participation in their selected activity.
Unit R182 – Topic Area 2: The musculo-skeletal system and how the use of technology supports different types of sports and their movements		
MB1: 1–2 marks	**MB2: 3–4 marks**	**MB3: 5–6 marks**
Briefly outlines a type of technology that provides them as a performer **or** their coach with information regarding the musculo-skeletal system during training and participation in their selected activity. **Briefly** outlines how the technology can maximise benefits **and/or** minimise drawbacks for long-term participation in their selected activity.	**Adequately** describes a **range** of technology and the information it provides them as a performer **and/or** their coach with information regarding the musculo-skeletal system to support them during training and participation in their selected activity. **Adequately** explains how the technology can maximise benefits **and** minimise drawbacks for long-term participation in their selected activity.	**Comprehensively** describes how a **wide range** of technology provides them as a performer **and** their coach with information regarding the musculo-skeletal system to support them during training and to maximise participation in their selected activity. **Fully** explains how the technology can maximise benefits **and** minimise drawbacks for long-term participation in their selected activity.

Assessment guidance

Your assessors should use the comments section of the Unit Recording Sheets to explain their decisions.

Tasks	Assessment guidance
Task 1	• Students should look primarily at the role each element of the cardio-respiratory and musculo-skeletal systems has in short-term sport and physical activity. In looking at the role and function of each of the two systems, the students will gain an understanding of the components of each system. Students should relate their understanding of each system to sporting examples and to themselves as a performer.
Task 2	• Students should look primarily at the role each element of the cardio-respiratory and musculo-skeletal systems has in long-term sport and physical activity. In looking at the role and function of each of the two systems, the students will gain an understanding of the components of each system. Students should relate their understanding of each system to sporting examples and to themselves as a performer. • Students should look at what is happening when a sports performer continues to sustain participation. They need to look at the long-term adaptation of the cardio-respiratory and musculo-skeletal systems and compare the benefits and drawbacks to performers in different types of activities such as short high intensity, endurance and strength-based activities.
Task 3	• They should also look at the different types of technology available to inform sports performers on how both systems are responding to and adapting to physical activity. Technology should be looked at in terms of its use by beginners to elite sports performers and the setting in which it is used – such as a laboratory or field base. • Students may select the same sporting technologies for the same or different sporting activities. Although this is allowed, teachers must ensure that the evidence a student submits for their set assignment is not similar to other students in the cohort.

Synoptic assessment

Some of the knowledge, understanding and skills required when completing this unit will draw on the learning developed in Unit R180.

The following table details where these synoptic links can be found:

This unit and topic area		Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions	
Task Area		**Task Area**	
1	The cardio-respiratory system and how the use of technology supports different types of sports and their intensities	2	Warm up and cool down routines
2	The musculo-skeletal system and how the use of technology supports different types of sports, and their movements		
3	Short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems		
4	Long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems	3	Different types and causes of sports injuries
		4	Reducing risk, treatment and rehabilitation of sports injuries and medical conditions

More information about synoptic assessment within this qualification can be found in section 5.2 synoptic assessment.

4.5 Unit R183: Nutrition and sports performance

Aims

In all walks of life, appropriate nutrition is vital to our health and wellbeing. In the world of sport, the right nutrition is as important as the right equipment and the right training methods. Without suitable nutrition, a performer's body would not cope with the demands that sport and performance place on it.

In this unit you will learn to consider the composition of healthy, balanced nutrition. You will consider the necessity of certain nutrients and their role in enabling effective performance in different sporting activities. The knowledge gained will be used to produce an appropriate, effective nutrition plan for a performer.

Unit R183: Nutrition and sports performance

Topic Area 1: Nutrients needed for a healthy, balanced nutrition plan

Teaching content	Exemplification
1.1 Characteristics of a balanced nutrition plan	
□ Meeting the nutritional requirements of an individual □ Including foods from all of the food groups □ Carbohydrates: ▪ Fats ▪ Proteins ▪ Fibre ▪ Water ▪ Vitamins and minerals □ Containing a variety of foods □ Suiting the needs/tastes of the individual	To include: • Nutritional requirements - meeting the total calorific needs of current sporting activities / hobbies, cultural differences, training needs, medical needs • Variety of foods - meat and dairy, fruit and vegetables, water, fats and sugars • Taste and preferences for any individual - allergies to any particular ingredients
1.2 The role of nutrients in sports and their sources	
□ Carbohydrates give a quick supply of energy – sugars and starchy carbohydrates □ Fats – give a slower supply of energy and transport some vitamins around the body – include good and bad fats □ Proteins repair muscle damage □ Fibre helps digestion and prevents constipation □ Water keeps the body hydrated, regulate temperature, helps remove waste products □ Vitamins and minerals help strengthen bones, maintain a healthy immune system	To include: • Simple carbohydrates – oranges, biscuits • Complex carbohydrates - rice, potatoes • Bad fats – vegetable oil, lard • Good fats – nuts, salmon • Proteins - meat, pulses (baked beans, kidney beans) • Fibre - cereals, wholemeal bread • Water - water based drinks • Vitamins and minerals - fresh fruit and vegetables

Unit R183: Nutrition and sports performance

Topic Area 2: Applying differing dietary requirements to varying types of sporting activity

Teaching content	Exemplification
2.1 The dietary requirements of endurance/aerobic activities	
2.1.1 Before endurance/aerobic activity: □ Hydration □ Carbohydrate loading **2.1.2 During endurance/aerobic activity:** □ Maintain hydration □ Maintain carbohydrate levels **2.1.3 After endurance/aerobic activity**	To include: • Activities that focus on endurance (long distance running or rowing) should be used to exemplify the requirements. To include: ○ Before endurance - water, potatoes, oranges ○ During activity - half time/time out or immediately before a work out or pre-event extras ○ After - rehydrate – water. Nutrients – appropriate carbo-hydrates, proteins, fats and vitamins and minerals
2.2 The dietary requirements of short intense/anaerobic activities	
2.2.1 Before short intense/anaerobic activities: □ Use of carbohydrates (not carbohydrate loading) □ Use of proteins **2.2.2 During short intense/anaerobic activities** **2.2.3 After short intense/anaerobic activities:** □ Rehydrate immediately □ Reload appropriate nutrients	To include: • Activities that focus on anaerobic activities (100m sprint, HIIT training) should be used to exemplify the requirements. To include: ○ Before short intense – carbohydrates - whole grain cereal, fruit. Proteins – eggs, meat ○ During half time - time out or immediately before a work out or pre-event extras - energy for short, sharp bursts of activity, aid recovery ○ After - rehydrate – water. Nutrients – appropriate carbohydrates, proteins, fats and vitamins and minerals
2.3 The dietary requirements of strength based activities	
2.3.1. Before strength based activities: □ High in protein □ Limit excess body fat **2.3.2. During strength based activities** **2.3.3 After strength based activities:** □ Rehydrate immediately □ Reload appropriate nutrients	To include: • Activities that focus on strength-based activities (for example weightlifting or rugby) should be used to exemplify the requirements: ○ Before - protein - 5-7 meals a day and build muscle mass. Limit excess body fat – reduce sugars, butter, cheese ○ During - half time / time out or immediately before a work out or pre-event extras - refuel with carbohydrates, fats and vitamins and minerals, maintain hydration ○ After - rehydrate – water. Nutrients – appropriate carbohydrates, proteins, fats and vitamins and minerals

Unit R183: Nutrition and sports performance

Topic Area 3: Developing a balanced nutrition plan for a selected sporting activity

Teaching content	Exemplification
3.1 How to design and develop a balanced nutrition plan	
3.1.1 Gather details about a current nutrition plan and any issues that might impact the design of future nutrition plans **3.1.2 Adapt the nutrition plan to suit a chosen sporting activity:** □ Add or remove relevant nutrients □ Change timings □ Portion sizes □ Amount of meals	To include: • Gather details - age range, allergies, cultural beliefs, food budget, cooking skill, activity, find current unbalanced nutritional information • Relevant nutrients - proteins, carbohydrates, vitamins and minerals, fats, water. Change timings to suit training/games/ events. Portion sizes – reduce or increase for relevant activity. Amount of meals – eat more or less often
3.2 Key factors when considering the success / impact of a nutrition plan	
3.2.1 Identify the nutritional changes that can be made **3.2.2 Suitability and organisation of a nutrition plan** **3.2.3 Review the potential success/impact of a nutrition plan:** □ On performance/training	To include: • Nutrients - added protein for muscle repair, reduced fat for weight loss or increased carbohydrates for energy • Plan - portion sizes, timings of meals, amount of meals, liquid intake • Performance/training – energy levels, components of fitness improvements, weight loss/gain

Topic Area 4: How nutritional behaviours can be managed to improve sports performance

Teaching content	Exemplification
4.1 The effect of overeating on sports performance	
4.1.1 The effects of overeating on sports performance: □ Effect on components of fitness □ How overeating can be manipulated for selected sports □ Increased nutrients □ Performance benefits	To include: • Components of fitness – speed, agility, flexibility and stamina • Increased nutrients - starchy carbohydrates, increased vitamins and minerals • Performance benefits - increased muscle mass, weight gain (for example weightlifting and rugby)
4.2 The effects of undereating on sports performance	
4.2.1 The effects of undereating on sports performance: □ Reduced energy levels □ Reduced concentration □ Weight management	To include: • Weight management – for example in boxing or martial arts to meet competition categories or gymnastics to maintain good performance

Unit R183: Nutrition and sports performance	
4.3 The effect of dehydration on sports performance	
4.3.1 The effects of dehydration on sports performance: □ Overheating □ Reduced performance level □ Reduced bloated feeling □ Reduced water retention	To include: • Overheating - can lead to headaches, nausea and heat stroke • Performance level - decrease due to cramp, a reduction in concentration leads to poor decision making • Reduced water retention - meaning weight categories can be achieved (for example boxing, mixed martial arts)

Marking criteria

Section 6.4 provides full information on how to mark the NEA units and apply the marking criteria. The marking criteria command words are further explained in Appendix B Command words.

The tables below contain the marking criteria for the tasks for this unit. If a student's work does not meet Mark Band 1 (MB1) criteria for any task, you must award zero marks for that task.

Unit R183 – Topic Area 1: Nutrients needed for a healthy, balanced nutrition plan		
MB1: 1–2 marks	**MB2: 3–4 marks**	**MB3: 5–6 marks**
Provides a **limited** description of what nutrients are and their role within a healthy balanced diet for the client's sporting activity. Gives a **limited range** of relevant examples of food sources of nutrients.	**Adequately** describes what nutrients are and their role within a healthy balanced diet for the client's sporting activity. Gives a **range** of relevant examples of food sources of nutrients.	**Comprehensively** explains what nutrients are and their role within a healthy balanced diet for the client's sporting activity. Gives a **wide range** of relevant examples of food sources of nutrients.

Unit R183 – Topic Area 2: Applying differing dietary requirements to varying types of sporting activity		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
Briefly outlines the importance of nutrition before, during and after exercise for each sporting activity.	**Adequately** explains the importance of nutrition before, during and after exercise for each sporting activity.	**Comprehensively** explains the importance of nutrition before, during and after exercise for each sporting activity.
Outlines the **basic** nutritional requirements for each activity type. Matches different needs with different activities with **limited** accuracy.	Outlines **a range** of nutritional requirements for each activity type. Matches different needs with different activities with **some** accuracy.	Outlines a **wide range** of nutritional requirements for each activity type. Matches different needs with different activities **accurately**.
Outlines with **limited** accuracy, the foods that are ideal and foods to limit for the different types of sporting activities.	Explains with **some** accuracy foods that are ideal and foods to limit for the different types of sporting activities.	**Comprehensively** explains why some foods are ideal and what foods to limit for the different types of sporting activities.
Limited or no justification of why these foods are either ideal or to be limited.	**Some** justification of why these foods are either ideal or to be limited.	**Detailed** justification of why these foods are either ideal or to be limited.

Unit R183 – Topic Area 3: Developing a balanced nutrition plan for a selected sporting activity		
MB1: 1–4 marks	**MB2: 5–8 marks**	**MB3: 9–12 marks**
The plan meets **few** of the specific needs and requirements identified in the goals.	The plan meets **some** of the specific needs and requirements identified in the goals.	The plan meets **all** of the specific needs and requirements identified in the goals.
Measurement of the impact of the nutrition plan is **brief**, with **limited** reflection on the client's needs.	Measurement of the impact of the nutrition plan is **adequate** and **some** of the client's needs are reflected upon.	Measurement of the impact of the nutrition plan is **comprehensive** and **most** of the client's needs are reflected upon.
Ideas for improvement are **basic** rather than specific to the sporting activity or individual.	Ideas for improvement are **partly** relevant and considered to the sporting activity or individual.	Ideas for improvement are **specific** to the sporting activity or individual.
Limited or no justification for the ideas for improvement.	**Some** justification of the ideas for improvement.	**Detailed** justification of the ideas for improvement.

Unit R183 – Topic Area 4: How nutritional behaviours can be managed to improve sports performance		
MB1: 1–3 marks	**MB2: 4–7 marks**	**MB3: 8–10 marks**
Limited discussion of the detrimental effects of overeating, under eating and dehydration, using **few** references to sports performance in your client's activity.	**Adequately** discusses the detrimental effects of overeating, under eating and dehydration, using **some** references to sports performance in your client's activity.	Discusses in **detail** the detrimental effects of overeating, under eating and dehydration, with **clear and detailed** references to sports performance in your client's activity.
Limited discussion of how nutrition can be positively managed by overeating, under eating and dehydration, using **few** references to sports performance in your client's activity.	**Adequately** discusses how nutrition can be positively managed by overeating, under eating and dehydration, with **some** references to sports performance in your client's activity.	Discusses in **detail** how nutrition can be positively managed by overeating, under eating and dehydration, with **clear and detailed** references to sports performance in your client's activity.

Assessment guidance

Your assessors should use the comments section of the Unit Recording Sheets to explain their decisions.

Tasks	Assessment guidance
Task 1	• Students are expected to describe the characteristics of a balanced nutrition plan, relevant to a client's sporting activity.
Task 2	• Students are expected, for each different client activity type provided, to show their understanding of the differing dietary requirements of each of the activities.
Task 3	• Students should review the client's nutrition plan provided. They should create a 2 week nutrition plan and then make amendments to this plan to make it suitable for their client's sporting activity. The students will then need to provide an evaluation.
Task 4	• Students are expected to discuss the negative effects of an unbalanced nutrition plan as well as the benefits of a manipulated nutrition plan.

Synoptic assessment

Some of the knowledge, understanding and skills required when completing this unit will draw on the learning developed in Unit R180.

The following table details where these synoptic links can be found:

This unit and topic area		Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions	
Topic Area		**Topic Area**	
1	Topic Area 1: Nutrients needed for a healthy, balanced nutrition plan	1	Different factors which influence the risk and severity of injury
4	Topic Area 4: How nutritional behaviours can be managed to improve sports performance	1	Different factors which influence the risk and severity of injury
		2	Warm up and cool down routines
		5	Causes, symptoms and treatment of medical conditions

More information about synoptic assessment within this qualification can be found in section 5.2 Synoptic assessment.

5 Assessment and grading

5.1 Overview of the assessment

Entry code	Qualification title	GLH*	Reference
J828	**OCR Level 1/Level 2 Cambridge National in Sport Science**	**120**	**603/7106/7**
Made up of three units: • Units R180 and R181 • and one other unit from R182 and R183.			

*the GLH includes assessment time for each unit

Individual unit details below:

Unit R180: Reducing the risk of sports injuries and dealing with common medical conditions	
48 GLH 1 hour 15 minute written examination 70 marks (80 UMS) OCR-set and marked Calculators are not required in this exam	This question paper has two parts: • Section A – short answer questions focused on PO1 • Section B – includes short and medium answer questions focused on PO2, with some PO1 Final question is extended response PO3 question.
Unit R181: Applying the principles of training: fitness and how it affects skill performance	
48 GLH OCR-set assignment 80 marks (80 UMS) Centre-assessed and OCR moderated	This set assignment contains 5 tasks. It should take approximately 16 GLH to complete.
Unit R182: The body's response to physical activity and how technology informs this	
24 GLH OCR-set assignment 40 marks (40 UMS) Centre-assessed and OCR moderated	This set assignment contains 3 tasks. It should take approximately 8-10 GLH to complete.
Unit R183: Nutrition and sports performance	
24 GLH OCR-set assignment 40 marks (40 UMS) Centre-assessed and OCR moderated	This set assignment contains 4 tasks. It should take approximately 8-10 GLH to complete.

OCR-set assignments for units R181, R182 and R183 are available free of charge from our secure website, 'Teach Cambridge'.

5.2 Synoptic assessment

Synoptic assessment is a built-in feature of this qualification. It means that students need to use an appropriate selection of their knowledge, understanding and skills developed across the qualification in an integrated way and apply them to a key task or tasks.

This also helps students to build a holistic understanding of the subject and the connections between different elements of learning, so they can go on to apply what they learn from this qualification to new and different situations and contexts.

The externally assessed unit R180 allows students to gain underpinning knowledge and understanding relevant to Exercise, Physical Activity, Sport and Health sector, and the Non Examined Assessment (NEA) units R181, R182 and R183 draw on and strengthen this learning by letting students apply their learning in a practical, skills-based way.

It is important to be aware of the synoptic links between the units so that teaching, learning and assessment can be planned accordingly. Then students can apply their learning in ways which show they are able to make connections across the qualification when they are assessed.

5.3 Transferable skills

This qualification also allows students the opportunity to gain broad, transferable skills and experiences that can be applied as they progress into their next stages of study and life and to enhance their preparation for future employment.

Students will develop the following skills that are transferable to different real-life contexts, roles or employment:

- **Research** – students will understand the objective of researching topic areas. Record of research sources would be kept and used to interpret findings and present evidence
- **Analytical Skills** – could involve the collection and analysis of, body function, measurement and fitness level information, to problem-solve and inform evaluations and making recommendations to help improve performance
- **Creative Thinking** – this will involve them exploring and generating ideas, making original connections possibly to find solutions and outcomes that are of value. As part of this process and development students may:
    - Connect their own and others' ideas and experiences in inventive ways
    - Question their own and others' assumptions
    - Try out alternatives or new solutions and follow ideas through
    - Adapt ideas as circumstances change
- **Planning** – planning of events, this will involve managing your time and identifying the resources you will need, as well as reviewing your plans if necessary
- **Team working** – working with others during sporting activities to encourage participation and support individuals
- **Leadership** – Leadership skills are combination of some of the above skills and can be developed where there is a natural opportunity to demonstrate this on an individual basis through activities such as sport leadership
- **Verbal Communication/Presentation** – creating and delivering information may be formal or informal, with a group or an individual
- **Healthy living and lifestyle skills.**

5.4 Grading and awarding grades

All results are awarded on the following scale:

- Distinction* at Level 2 (*2)
- Distinction at Level 2 (D2)
- Merit at Level 2 (M2)
- Pass at Level 2 (P2)
- Distinction at Level 1 (D1)
- Merit at Level 1 (M1)
- Pass at Level 1 (P1).

The shortened format of the grade will show on our secure website, 'Interchange' and some of our administrative documents. However, the full format of the grade will be on the certificates issued to students.

The boundaries for Distinction at Level 2, Pass at Level 2, and Pass at Level 1 are set judgementally. Other grade boundaries are set arithmetically.

The Merit (Level 2) is set at half the distance between the Pass (Level 2) grade and the Distinction (Level 2) grade. Where the gap does not divide equally, the Merit (Level 2) boundary is set at the lower mark (For example, 45.5 would be rounded down to 45).

For the examined unit, the Distinction* (Level 2) grade is normally set at about 0.75 of the D2-M2 distance above the D2 boundary mark.

To set the Distinction (Level 1) and Merit (Level 1) boundaries, the gap between the Pass (Level 1) grade and the Pass (Level 2) grade is divided by 3, and the boundaries set equidistantly. Where this division leaves a remainder of 1, this extra mark will be added to the Distinction (Level 1) to Pass (Level 2) interval, meaning the Distinction (Level 1) boundary will be lowered by 1 mark. Where this division leaves a remainder of 2, the extra marks will be added to the Distinction (Level 1) to Pass (Level 2) interval, and the Merit (Level 1) to Distinction (Level 1) interval, meaning the Distinction (Level 1) boundary will be lowered by 1 mark, and the Merit (Level 1) boundary will be lowered by 1 mark.

For example, if Pass (Level 2) is set judgementally at 59, and Pass (Level 1) is set judgementally at 30, then Distinction (Level 1) is set at 49, and Merit (Level 1) is set at 39.

Grades are indicated on qualification certificates. However, results for students who fail to achieve the minimum grade (Pass at Level 1) will be recorded as unclassified (U or u) and this is **not** certificated.

This qualification is unitised. Students can take units across different series and can resit units (see section 7.7 Unit and qualification resits). Grade boundaries are set per unit, per series, so may be set in different places for a unit in different series. When working out students' overall grades, OCR needs to be able to compare performance on the same unit in different series when different grade boundaries may have been set, and between different units. We use a Uniform Mark Scale (UMS) so this can be done.

A student's uniform mark for each unit is calculated from the student's raw mark on that unit. The raw mark boundary marks are converted to the equivalent uniform mark boundary. Marks between grade boundaries are converted on a pro rata basis.

When unit results are issued, the student's unit grade and uniform mark are given. The uniform mark is shown out of the maximum uniform mark for the unit (For example, 40/80). The table below shows the Raw marks and UMS marks for each unit:

Marks	R180	R181	R182/R183
Raw Marks	70	80	40
UMS	80	80	40

The uniform mark boundaries for each of the assessments are shown below:

Unit GLH	Max Unit Uniform Mark	Unit Grade							
		Distinction* at L2	Distinction at L2	Merit at L2	Pass at L2	Distinction at L1	Merit at L1	Pass at L1	U
24	40	36	32	28	24	20	16	12	**0**
48	80	72	64	56	48	40	32	24	**0**

The student's uniform mark for Unit R180 will be combined with the uniform mark for the NEA units to give a total uniform mark for the qualification. The student's overall grade will be determined by the total uniform mark. The following table shows the minimum total mark for each overall grade:

Max Uniform Mark	Qualification Grade							
	Distinction* at L2	Distinction at L2	Merit at L2	Pass at L2	Distinction at L1	Merit at L1	Pass at L1	U
200	180	160	140	120	100	80	60	**0**

A marks calculator is available on the qualification page of the OCR website to help you convert raw marks into uniform marks.

5.5 Performance descriptors

Performance descriptors give a general indication of likely levels of attainment by representative students performing at boundaries: Distinction at Level 2, Pass at Level 2 and Pass at Level 1.

Performance descriptor – Distinction at Level 2

Students will be able to:

- Recall, select and apply **detailed** knowledge and **thorough** understanding of a wide range of Sport Science concepts
- Present information **clearly** and **accurately**, using a **wide range** of terminology
- Apply **relevant** knowledge, and a **thorough** understanding of physical and psychological factors that affect performance and participation in sporting activities
- Analyse and evaluate the evidence available, reviewing and adapting their methods **where appropriate**
- Make **reasoned** judgements and **substantiated** conclusions
- Create material which reflects **thoughtful** planning, **skilled** development and **perceptive** evaluation as well as **actively demonstrating** practical skills at a **high level**
- Identify, plan and carry out a **wide range** of activities and exercises to prepare for, and recover from, sporting activities
- Demonstrate an understanding of how to meet specific needs when developing and delivering different physical activity programmes.

Performance descriptor – Pass at Level 2

Students will be able to:

- Recall, select and apply **sound** knowledge and understanding Sport Science concepts
- Present information **clearly** and with **some** accuracy, using a range of terminology
- Apply knowledge, understanding and skills of physical and psychological factors that affect performance and participation in sporting activities
- Review evidence available, analysing and evaluating **some** information **clearly** and making **some basic** adaptations to their methods
- Make **judgements** and draw **appropriate** conclusions
- Create material which reflects **effective** planning, development and evaluation and an ability to demonstrate **sound** practical skills
- Identify, plan and carry out a **range** of activities and exercises to prepare for, and recover from, sporting activities
- Demonstrate **some** awareness of how to meet specific needs when developing and delivering different physical activity programmes.

Performance descriptor – Pass at Level 1

Students will be able to:

- Recall, select and apply knowledge and understanding of **basic** Sport Science concepts
- Present **basic** information, using **limited** terminology
- Apply **limited** knowledge, understanding and skills of physical and psychological factors that affect performance and participation in sporting activities
- Review evidence and draw **basic** conclusions
- Create material which demonstrates a degree of planning, development and evaluation and **limited** practical skills
- Identify and carry out a **limited range** of activities and exercises suitable for preparing for, and recovering from, sporting activities
- Demonstrate **limited** awareness of how to meet specific needs when developing and delivering different physical activity programmes.

6 Non examined assessment (NEA) units (R181–R183)

This section provides guidance on the completion of the NEA units (R181, R182 and R183). The NEA units are designed so that students can build a portfolio of evidence to meet the topic areas for the unit.

Assessment for this qualification must adhere to JCQ's Instructions for Conducting Coursework. Please **do not** use JCQ's Instructions for Conducting Non-examination Assessments – these are only relevant to GCE and GCSE specifications.

Units R181 – R183 are centre assessed and externally moderated by us.

You **must** make sure that you have read and understood all of the rules and guidance provided in this section **before** your students complete and you assess the set-assignments.

If you have any queries please contact us for help and support.

6.1 Preparing for NEA unit delivery and assessment

6.1.1 Centre and teacher/assessor responsibilities

For the NEA units of this qualification we assume the teacher is the assessor.

Before you plan to get approval from us to offer this qualification you must be confident your centre can fulfil all the responsibilities described below.

The quality of the delivery of teaching and the integrity of assessments and quality assurance is paramount. Systems must be in place so that assessments are fair, valid, reliable and authentic. One of the key factors behind valid, fair and reliable assessment is the expertise of those doing the assessment and internal quality assurance.

With this in mind, here's a summary of the responsibilities that your centre and teachers must be able to fulfil. It is the responsibility of the head of centre[1] to make sure our requirements are met:

- There are enough trained or qualified people to teach and assess the expected number of students you have in your cohorts
- Teaching staff have the relevant level of subject knowledge and skills to deliver and assess this qualification
- Teaching staff will fully cover the knowledge, understanding and skills requirements in teaching and learning activities
- Necessary resources are available for teaching staff and students during teaching and assessment activities, to give students every opportunity to meet the requirements of the qualification and reach the highest grade possible
- There's a system of standardisation in place so that all assessment decisions for teacher-marked (centre assessed) assignments are consistent, fair, valid and reliable (see internal standardisation in section 6.4.3)
- There's enough time for effective teaching and learning, assessment and internal standardisation
- Processes are in place to make sure that students' work is individual and confirmed as being authentic (see Ways to authenticate work in section 6.2.1)
- You must use the OCR-set assignments for students' summative assessments
- The OCR-set assignments must not be used for practice (see section 6.2, Requirements and guidance for delivering and marking the OCR-set assignments)
- Students understand what they need to do to get the highest marks possible
- Students understand what it means when we say work must be authentic and individual and they (and you) must follow any requirements we set out to make sure their work is their own
- Students know they must not reference another individual's personal details in any evidence produced for summative assessment in accordance with the Data Protection Act 2018 and the UK General Data Protection Regulation (UK GDPR). It is the student's responsibility to make sure evidence that includes another individual's personal details is anonymised

1 This is the most senior officer in the organisation, directly responsible for the delivery of OCR qualifications, For example, the headteacher or principal of a school/college. The head of centre accepts full responsibility for the correct administration and conduct of OCR exams.

- Marks submitted to us are correctly recorded in all centre and OCR records and forms
- Assessment of set assignments must adhere to JCQ Instructions for Conducting Coursework.
- A declaration is made at the point you're submitting any work to us for assessment that confirms:
    - all assessment is conducted according to the specified regulations identified in the Administration area of our website,
    - students' work is authentic
    - marks have been transcribed accurately
- Centre records and students' work are kept according to the requirements below:
    - students' work must be kept until after their qualifications have been awarded and any review of results or appeals processed. We will not consider any review if the centre does not keep the work
    - internal standardisation and assessment records must be kept securely for a minimum of three years after the date we've issued a certificate for a qualification
- the head of centre must report all cases of suspected malpractice involving teachers or students (see 'Reporting suspected malpractice' in section 6.3.1).

6.2 Requirements and guidance for delivering and marking the OCR-set assignments

The assignments are set by us, taken under supervised conditions, marked by the teacher and moderated by us. Assignments are available on our secure website, 'Teach Cambridge'.

The set assignments give an approximate time that it will take to complete all tasks. These timings are for guidance only, but should be used by you, the teacher, to give students an indication of how long to spend on each task. You can decide how the time should be allocated between each part or individual task. You are also permitted to spread the tasks across several sessions, and therefore it is permissible for evidence to be produced over several sessions.

We will replace the set assignments each year, published in June for teaching from the following September. You must check our secure website, 'Teach Cambridge', and use the set assignment that is live for assessment. The live assessment dates will be shown on the front cover.

Assessment of the set assignments must adhere to JCQ *Instructions for Conducting Coursework*.

Appendix A of this specification gives guidance for creating electronic evidence for the NEA units. Please read Appendix A along with the unit content and marking criteria grids as it might help you plan your delivery of the units.

The rest of this section deals with how we expect you to manage the delivery and marking of the set assignments, so that assessment is valid and reliable.

Please note that failing to meet these requirements may be deemed to be malpractice.

Here is a summary of what we need you to do.

You **must**:

- Have covered the knowledge, understanding and skills with your students and be sure they are ready for assessment before you start the summative assessment
- Give students the Student Guidance document before they start the assessment
- Make sure students are clear about the tasks they must complete and the criteria they are expected to meet. You can:
    - explain the task
    - provide a copy of the marking criteria to students
- Allow students a reasonable amount of time to complete the assignments and be fair and consistent to all students. The time you allow should be in line with the estimated time we think it should take which is stated in the OCR-set assignments. Within that time students can work on the tasks any time until the date the centre collects the work for centre assessment
- Tell the students the resources and sources of assets that they can use in the assignment before undertaking the assessment tasks

- Only give students OCR-provided templates, as seen in the set assignment. If there are no templates within the set assignment this means that the students are expected to structure their own work – you may not give them a template, writing frame or work format of your own creation, from a book, website or any other source
- Monitor students' progress to make sure work is capable of being assessed against the marking criteria, on track for being completed in good time and is the **student's own** work:
    - work must be carried out with enough supervision to make sure that the work submitted can be confidently authenticated as the student's own work
    - NEA work **must** be completed during normal curriculum time and supervised and marked by the teacher/assessor
    - if you provide any material to prepare students for the set assignment, you must adhere to the rules on using referencing and on acceptable levels of guidance to students set out within the Plagiarism and Feedback sections (see 6.2.2 Plagiarism and 6.3 Feedback)
    - students must produce their work independently (see 6.2.1 and 6.3 on Ways to authenticate work and Feedback)
    - you must make sure students are aware of the requirement to keep their work secure, not share with other students and keep their passwords secure
- Allow students to take the initiative to improve any element of their work as they work through the assignment
- Use the marking criteria to mark students' work
- Before submitting marks to us, allow students to repeat any element of the assignment and rework their original evidence. But, any feedback given to students on the original (marked) evidence, must only be generic and must be recorded and available to the moderator (see section 6.3 on Feedback and section 6.4.4 on resubmitting work).

You **must not**:

- Make any changes to the OCR-set assignments – beyond that of selecting sporting activities from the approved list where this is asked for
- Accept multiple resubmissions of work where small changes have been made in response to feedback
- Allow teachers or students to add, amend or remove any work after students have submitted work for final assessment. This will constitute malpractice
- Practice the OCR-set assignment tasks with the students
- Create practice assignments and practice data which are similar in nature to those set by us
- Give detailed advice and suggestions to individuals or the whole class on how work may be improved to meet the marking criteria.

6.2.1 Ways to authenticate work

You must be confident that the work you mark is the student's own. Every student must produce their own work independently. You must use enough supervision, or complete sufficient checks, to be able to judge the authenticity of the student's work.

Wherever possible, the teacher should discuss work-in-progress with students. This will make sure that work is being completed in a planned and timely way and provide opportunities for you to check authenticity of the work.

You must:

- make sure students and other teachers understand what constitutes plagiarism and not accept plagiarised work as evidence (you might find the JCQ document *Plagiarism in Assessments* helpful)
- use supervision and questioning as appropriate to confirm authenticity
- make sure students and teachers fill in declaration statements.

6.2.2 Plagiarism

When producing final 'written' pieces of work for the set assignments, students must use their own words to show they have genuinely applied their knowledge and understanding. When students use their own words, ideas and opinions, it reduces the possibility of their work being identified as plagiarised. Plagiarism is the submission of someone else's work as your own and/or failure to acknowledge a source correctly. Plagiarism makes up a large percentage of cases of suspected malpractice reported to us by moderators. Teachers must make sure they do not accept plagiarised work as evidence.

Plagiarism often occurs innocently when students do not know that they must reference or acknowledge their sources or aren't sure how to do so. It's important to make sure your students understand:

- The meaning of plagiarism and what penalties may be applied
- That they can refer to research, quotations or evidence produced by somebody else but they must list and reference their sources and clearly mark quotations
- Quoting someone else's work, even when it's properly sourced and referenced, doesn't evidence understanding. The student must 'do' something with that information to show they understand it. For example, if a student has to analyse data from an experiment, quoting data doesn't show that they understand what it means. The student must interpret the data and, by relating it to their assignment, say what they think it means. The work must clearly show how the student is using the material they have referenced **to inform their** thoughts, ideas or conclusions.

We have a guide to referencing on our website *The OCR Guide to Referencing* and we have also produced a poster on referencing and plagiarism which may be useful to share with students.

Some useful tips are:

- Best practice is to always reference material copied from the internet or other sources. This applies to infographics (graphical information providing data or knowledge) as well
- Teach your students how to reference and explain why it's important to do it. At Key Stage 4 it is sufficient if they:
    - use quote marks to show the beginning and end of the copied work
    - for website text, list the html address and ideally the date they accessed the website
    - for other publications, list the name of the resource/book/printed article and ideally the year in which it was published.
- Students must also identify information they have copied from teaching handouts and presentations for the unit, using quote marks and stating the text is from class handouts.

Identifying copied/plagiarised work

Inconsistencies throughout a student's response are often indicators of plagiarism. For example:

- Different tones of voice, sentence structure and formality across pieces of work
- Use of American expressions, spellings and contexts (such as American laws and guidelines)
- Dated expressions and references to past events as being current
- Sections of text in a document where the font or format is inconsistent with other sections.

What to do if you think a student has plagiarised

If you identify plagiarised work at the point of marking or moderation:

- This must be taken into account when applying the mark scheme.
    - The work should be included with any work that is sent to the moderator if it is part of the moderation sample, with a note on the Unit Recording Sheet to state that there is plagiarism in the work and that marks have been adjusted accordingly
- The student(s) must be reported for plagiarism in line with the JCQ document Suspected Malpractice Policies and Procedures
    - Fill in the *JCQ form M1*

In line with the policy and procedures of JCQ on suspected malpractice, the penalties applied for plagiarism would usually result in the work not being allowed or the mark being significantly reduced.

6.3 Feedback

Feedback to students on work in progress towards summative assessment

You can discuss work-in-progress towards summative assessment with students to make sure it's being done in a planned and timely way. It also provides an opportunity to check the authenticity of the work. You must intervene if there's a health and safety risk.

Generic guidance to the whole class is also allowed. This could include reminding students to check they have provided evidence to cover every aspect of the task. Individual students can be prompted to double check for gaps in evidence providing that specific gaps are not pointed out to them.

You can give general feedback and support if one or more students are struggling to get started on an aspect of the assignment or following a break between sessions working on the assignment. For example, if a student is seeking more guidance that suggests they are not able to apply knowledge, skills and understanding to complete their evidence you can remind them that they had a lesson which covered the relevant topic. The student would then need to review their own notes to find this information and apply it as needed.

Feedback must not provide specific advice and guidance that would be construed as coaching. This would compromise the student's ability to independently perform the task(s) they are doing and constitutes malpractice. Our moderators use a number of measures to assure themselves the work is the student's own.

Once work has been marked, feedback must be provided to students on the work they submitted for assessment.

Feedback **must**:

- be supportive, encouraging and positive
- tell the student what has been noticed, not what the teacher thinks (for example if you have observed the student completing a task you can describe what happened, what was produced and what was demonstrated)

Feedback **can**:

- identify what task and part of the task could be improved, but not detail how to improve it. You could show the student work from a **different** unit that demonstrates higher achievement, but you must not detail to the student how they could achieve that in their work. If you are using another student's work as a model answer, please anonymise this work. You could remind students that they had a lesson on a specific topic and that they could review their notes, but you must not tell them how they could apply the teaching to improve their work
- comment on what has been achieved, for example '*the evidence shows a sound understanding for MB2*'
- identify that the student hasn't met a command verb or mark band requirement. For example, '*This is a description, not an evaluation*'
- use text from the specification, assignment or marking criteria in general guidance to clarify what is needed in the work. For example '*you need to consider all bullet points relating to the planning and developing of your 6 week fitness training programme. Make sure that you have produced a fully appropriate plan which considers most of the requirements for effective and safe training programmes. At present you have only given what can be considered a sound plan which considers some of the requirements*'.
- point out where the work sits within the mark bands but students must make their own decisions as to what to improve and how. For example, the feedback can say '*this shows a **sound** understanding*' (for mark band 2) but not precisely what should be added to make it show a **comprehensive** understanding (for mark band 3).

Feedback **must not**:

- point out specific gaps, for example you must not prompt the student to include specific detail in their work, such as '*You need to improve this by giving more detail*'
- be so detailed that it
  - leads students to the answer, for example you must not give model answers on the **same** unit being taken or explain specifically what amendments should be made. If work from another student on a **different unit** is being used to model answers, please ensure it is anonymised.
  - provides a step-by-step guide on what to do to complete or improve work, for example you must not give headings or templates that include examples which give all or part of what students have to write about or produce.
- talk the student through how to achieve or complete the task
- give detail on where to find information/evidence.

In other words, feedback must help the student to take the initiative in making changes. It must not direct or tell the student what to do to complete or improve their work in a way that means they do not need to think how to apply their learning. Students need to recall or apply their learning. You must not do the work for the student(s).

Neither you nor the student can add, amend or remove any work after the final mark has been submitted for moderation.

Please see additional guidance for students who wish to resubmit their work in Section 6.4.4.

What over-direction might look like

When we see anything that suggests the teacher has led students to the answer, we become concerned because it suggests students have not worked independently to produce their assignment work. The following are examples of what may indicate over-direction by the teacher:

- Prompts that instruct students to include specific detail in their work, such as, 'Those tests you are using here are not appropriate for that component of fitness, I would suggest you use X instead'
- Headings or templates that include examples which give all or part of what students have to write about or produce, such as listing all of the fitness tests, and how to conduct them. Producing tables for the students to complete with their results of fitness testing.

Moderators will report suspected malpractice when they cannot see differences in content between students' work in the sample they are moderating. An exception is when students have only used and referenced technical facts and definitions. If the moderator is in any doubt, they will report suspected malpractice. The decision on whether or not to investigate is made by us not the moderator.

6.3.1 Reporting suspected malpractice

It is the responsibility of the head of centre to report all cases of suspected malpractice involving teachers or students.

A JCQ Report of Suspected Malpractice form (JCQ/M1 for student suspected malpractice or JCQ/M2 for staff suspected malpractice) is available to download from the JCQ website and must be completed as soon as possible and emailed to us at malpractice@ocr.org.uk.

When we ask centres to investigate instances of malpractice, heads of centres must act promptly and report the outcomes to us.

More information about reporting and investigating suspected malpractice, and the possible sanctions and penalties which could be imposed, is in the JCQ publication: Suspected Malpractice Policies and Procedures. You can also find out more on our website.

6.3.2 Supervision

NEA work must be completed in normal curriculum time and supervised and marked by the teacher. You must use enough checks so you're confident the student's work is authentic.

For example, you could use questioning to confirm the depth and breadth of their understanding of the topic they've covered in a specific piece of work.

6.3.3 Student and centre declarations

Both students and teachers must declare that the work is the student's own:

- **each student** must sign a declaration before submitting their work to their teacher. A candidate authentication statement that can be used is available to download from the OCR website. These statements should be kept within the centre until all enquiries about results, malpractice and appeal issues have been resolved. A mark of zero must be recorded if a student cannot confirm the authenticity of their work. **A mark of zero must be recorded if a student cannot confirm the authenticity of their work**
- **teachers** must declare the work submitted for centre assessment is the student's own work by completing a centre authentication form (CCS160) for each unit. Centre authentication forms should be kept within the centre until all post-results issues have been resolved.

6.3.4 Group working

We do not assess the skills associated with group work in this qualification and the OCR-set assignment will not include it. If it is necessary to use group work to make the delivery of the assignment more manageable, you must make sure that all tasks and evidence submitted for assessment that shows the student has met the marking criteria is entirely the individual's own work.

6.3.5 Methods of assessment

It is your responsibility to choose the best method of assessing a student in relation to their individual circumstances. The methods chosen must be:

- Valid
- Reliable
- Safe and manageable
- Suitable to the needs of the student.

Valid

Validity can be compromised if a student does not understand what is being asked of them. For example, one valid method of assessing a student's knowledge and understanding is to question them. If the questions posed are difficult for the student to understand (not in terms of the content but the way they are phrased, for example) the validity of the assessment method is questionable.

As well as assessment methods being valid, the evidence presented must also be valid. For example, it would not be appropriate to present an organisation's equal opportunities policy as evidence towards a student's understanding of how the equal opportunities policy operates within the organisation. It would be more appropriate for the student to incorporate the policy within a report describing different approaches to equal opportunities.

Reliable

A reliable method of assessment will produce consistent results for different assessors on each assessment occasion. Internal moderators must make sure that all assessors' decisions are consistent.

Safe and manageable

Assessors and internal moderators must make sure that the assessment methods are safe and manageable and do not put unnecessary demands on the student.

Suitable to the needs of the student

We are committed to ensuring that achievement of these qualifications is free from unnecessary barriers. You must follow this commitment through when discussing suitable sporting activities for your students to take part in and/or considering assessment. If you are thinking about amending tasks and are not sure what is acceptable, contact us.

Observation and questioning

The primary evidence for assessment is the work submitted by the student, however we consider the following assessment methods suitable for teachers/assessors to use for these qualifications:

- **observation** of a student doing something
- **questioning** of the student or witness.

Observation

The teacher/assessor and student should plan observations together but it is the teacher's/assessor's responsibility to record the observation properly (for example observing a student undertaking a practical task). Find more information in the Teacher Observation Records section below.

Questioning

Questioning the student is normally an ongoing part of the formative assessment process and may, in some circumstances, provide evidence to support achievement of the criteria.

Questioning is often used to:

- test a student's understanding of work which has been completed outside of the classroom
- check if a student understands the work they have completed
- collect information on the type and purpose of the processes a student has gone through.

If questioning is to be used as evidence towards achievement of specific topic areas, it is important that teachers/assessors record enough information about what they asked and how the student replied, to allow the assessment decision to be moderated.

6.3.6 Teacher Observation Records

There is an optional Teacher Observation Record form **in the OCR set-assignment for unit R181** for each student as evidence, for Task 1 and Task 2. This is in support of the required evidence of written report or presentation evidence.

Teacher observation **cannot** be used as evidence of achievement for a whole unit. Most evidence should be produced directly by the student. Teacher observation should only be used where specified as an evidence requirement within R181.

Teacher Observation Records must be suitably detailed for each student, to help assessors to determine if the grading criteria have been met. You must follow the guidance provided in the 'guidance notes' section of the form so that the evidence captured and submitted is appropriate. Both the student and the teacher must sign and date the form to show that you agree its contents.

Where the guidance has not been followed, the reliability of the form as evidence may be called into question. If doubt about the validity of the Teacher Observation Record form exists, it cannot be used as assessment evidence and marks based on it cannot be awarded. Moderators will be instructed to adjust centre marks accordingly.

6.3.7 Presentation of the final piece of work

Students must observe the following procedures when producing their final piece of work for the NEA tasks:

- Work can be word processed or hand-written
- Tables and graphs (if relevant) may be produced using appropriate ICT
- Any copied material must be suitably acknowledged
- Quotations must be clearly marked and a reference provided
- A completed Unit Recording Sheet must be attached to work submitted for moderation. The Unit Recording Sheet can be downloaded from the qualification page
- Centres must provide guidance on the Unit Recording Sheet (URS) to show where specific evidence can be found. This may be through the use of the 'page number' column and/or by referencing file names and locations
- Work submitted digitally for moderation should be on electronic media (for example, on our portal, CD or USB Drive), and be in a suitable file format and structure, as detailed in Appendix A at the end of this specification. Students must submit their completed product(s) in an electronic format that is suitable for the client in the set assignment.

6.4 Marking NEA units

All NEA units are internally marked by teachers using the OCR marking criteria and guidance and externally moderated by the OCR-appointed moderator. Assessment of the set assignments must adhere to JCQ *Instructions for Conducting Coursework.*

The centre is responsible for appointing someone to act as the assessor. This could be the teacher who has delivered the programme or another person from the centre.

The marking criteria must be used to mark the student's work. These specify the levels of skills, knowledge and understanding that the student is required to demonstrate.

6.4.1 Use of a 'best fit' approach to marking criteria

The assessment tasks should be marked by teachers/assessors according to the OCR marking criteria using a 'best fit' approach. For each of the marking criteria, teachers/assessors select the band descriptor provided in the marking grid that most closely describes the quality of the work being marked.

Marking should be positive, rewarding achievement rather than penalising failure or omissions. The award of marks **must be** directly related to the marking criteria.

- Each band descriptor covers all the relevant content for the topic areas.
- The descriptors should be read and applied as a whole.
- Make a best fit match between the answer and the band descriptors.
- An answer does not have to meet all of the requirements of a band descriptor before being placed in that band. It will be placed in a particular band when it meets more of the requirements of that band than it meets the requirements of other bands.
- Where there is more than one strand within the band descriptors for a topic area and a strand has not been addressed at all, it might still be possible for the answer to be credited within that mark band depending upon the evidence provided for the remaining strands. The answer should be placed in the mark band most closely reflecting the standard achieved across all strands within the band descriptors for a topic area; however in this scenario, the mark awarded for that band should reflect that a strand has not been addressed.

When deciding the mark within a band, the criteria below should be applied:

- The extent to which the statements within the band have been achieved. For example:
    - An answer that convincingly meets nearly all of the requirements of a band descriptor should be placed at or near the top of that band. Where the student's work convincingly meets the statements, the highest mark should be awarded
    - An answer that meets many of the requirements of the band descriptor should be placed in the middle of the band. Where the student's work adequately meets the statements, the most appropriate mark in the middle range should be awarded
    - If an answer is on the borderline between two bands but it is decided that it better fits the descriptors for:
        - The lower of these two bands - it should be placed near the top of the lower band
        - The higher of these two bands - the lowest mark for the higher band should be awarded.
- If a student's work does not meet Mark Band 1 (MB1) criteria for any task, you must award zero marks for that task.

Teachers/assessors should use the full range of marks available to them and award full marks in any band for work that fully meets that descriptor. This is work that is 'the best one could expect from students working at that level'.

6.4.2 Annotating students work

Each piece of NEA work should show how the marks have been awarded in relation to the marking criteria.

Writing comments on students' work and Unit Recording Sheet (URS) provides a means of communication between teachers during the internal standardisation, and with the moderator if the work is part of the moderation sample.

6.4.3 Internal standardisation

It is important that all teachers/assessors work to common standards. Centres must make sure that, within each unit, the internal standardisation of marks across teachers/assessors and teaching groups takes place using an appropriate procedure.

This can be done in a number of ways. In the first year, reference material and OCR training meetings will provide a basis for centres' own standardisation. In following years, this, or centres' own archive material, may be used. We advise centres to hold preliminary meetings of staff involved to compare standards through cross-marking a small sample of work. After most marking has been completed, a further meeting at which work is exchanged and discussed will help final adjustments to be made.

If you're the only assessor in your centre for this qualification, then it's still advisable to make sure your assessment decisions are internally standardised by someone else in your centre, ideally someone who has experience of the nature of this qualification (For example, is delivering a similar qualification in another subject) or relevant subject knowledge and asking them to review a sample of the assessments.

You must keep evidence of internal standardisation in the centre for the moderator to see.

We have a guide to how internal standardisation may be approached on our website.

6.4.4 Resubmitting moderated work for (summative) assessment to improve the grade

If following moderation you and the student feel they have not performed at their best during the assessment, the student can, at the centre's discretion, improve their work and resubmit it to you for assessment. You must be sure it is in the student's interests to re-attempt the assessment.

Resubmission of the **same** work must be in a series that falls in the live assessment dates for the assignment on which the work is based. The live assessment date will be shown on the front cover of the assignment. If you want to resubmit NEA work for a student **after** the live assessment date for the original assignment, the work must be based on the assignment that is live for the series in which you are submitting the work for assessment. We will not accept work for moderation (or re-moderation) based on an assignment that is no longer live.

You must record the reasons why a student has been allowed to resubmit in the centre's assessment decision records. You must also follow our guidelines on giving feedback and record the feedback given to the student on the original work. We monitor the assessment decisions you make. You must follow the same guidelines as outlined in Section 6 where a student improves their work for resubmission. All feedback that has been given to the student for the purposes of resubmitting work must be recorded. We reserve the right to request the written feedback and the work in its original state. If you do not meet the requirements this will be treated as malpractice.

There is one re-submission opportunity. Resubmission before submitting a final mark to us is intended to allow the student to reflect on feedback (which must be recorded) and improve their work. It is not an iterative process where they make small modifications through ongoing feedback to eventually achieve the desired level.

Neither you nor the student can add, amend or remove any work after the final mark has been submitted for moderation.

See Section 7.2 for terminal assessment rules.

6.4.5 Submitting marks

All work for NEA units is marked by the teacher and internally standardised by the centre. Marks are then submitted to us. You can find the key dates and timetables on our website.

There should be clear evidence that work has been attempted and some work produced. If a student submits no work for a NEA unit, the student should be identified as being absent from that unit.

If a student completes any work at all for a NEA unit, then the work should be assessed according to the marking criteria and the appropriate mark awarded. This may be zero.

6.5 Moderating NEA units

The purpose of external moderation is to make sure that the standard of marking is the same for each centre and that internal standardisation has taken place.

The administration pages of our website provide full details about how to submit work for moderation.

This includes the deadline dates for entries and submission of marks. For moderation to happen, centres must submit their marks.

6.5.1 Sample requests

Once you have submitted your marks, we will tell you which work will be sampled as part of the moderation. Samples will include work from across the range of attainment of students' work. Copies of students' work must be kept until after their qualifications have been awarded and any review of results or appeals processed.

Centres will receive the final outcomes of moderation when the provisional results are issued. Results reports will be available for you to access. More information about the reports that are available is on our administration pages.

As it is essential for us to have sample work available at awarding meetings, we may ask some centres to release work for awarding and archive purposes. We will let you know as early as possible if we need this from you and always appreciate your co-operation.

7 Administration

The information in this section gives an overview of the processes involved in administering this qualification. All of the following processes require you to submit something to OCR by a specific deadline. More information about the processes and deadlines involved at each stage of the assessment cycle can be found in the Administration area of the OCR website.

7.1 Assessment availability

There are two assessment series available each year in January and June to all students. Students can be entered for different units in different assessment series. All students must take the exam at a set time on the same day in a series. Certification is available each January and June.

Series	Unit availability	
	Unit R180	Units R181–R183
January	✓	✓
June	✓	✓

7.2 Terminal Assessment

The externally assessed unit must be taken as terminal assessment. This means that the exam for unit R180 must be taken at the end of the students' course of study. This exam contributes 40% of the total marks available for the qualification.

NEA units can be submitted in any series but must be submitted either before or in the same series as the externally assessed unit.

Certification entries

- For a student to achieve the qualification, you need to make a qualification certification entry (aggregation)
- You can make certification entries:
    - at the same time as unit entries for the exam
    - after you have received results for the exam as a late certification request for that series
    - after you have received results for the exam as a certification entry in a later series
- You can make certification entries in the January or June series – this is the series that will appear on the qualification certificate
- Certification entries and late certification requests are free of charge.

Resitting units before certification

- Students **can** take the exam before all the NEA units are completed. This is classed as a 'practice attempt'
- 'Practice attempts' do not count towards the student's overall grade or in performance tables. The student will be issued with a unit result only
- When the student has completed all the NEA units, if you do not make a certification entry when you enter for the exam, the exam will be classed as a practice attempt unless you make a late certification entry or a certification entry in a subsequent series
- If a student takes the exam again after a practice attempt, the result of the latest attempt will count towards the qualification result, even if the practice attempt result was higher
- An NEA unit can be re-submitted once before the overall qualification is awarded. We will use the best result of both attempts towards the qualification result.

Retaking the qualification

- After a student has achieved a qualification result, they can resit the externally assessed unit and submit the NEA units again in a later series to improve their qualification result:
    - Students can retake the exam without resubmitting the NEA units
    - Students cannot resubmit the NEA units only to improve results. In order to meet terminal assessment requirements, they must also retake the exam if they are resubmitting NEA units
- As we will replace the set assignments annually, you must check our secure website, 'Teach Cambridge' to make sure any intended resubmissions align with the set assignments that are available to be used in that period
- The result from the first overall qualification result is used towards the performance tables

7.3 Equality Act information relating to Cambridge Nationals

The Cambridge Nationals require assessment of a broad range of skills and, as such, prepare students for further study and higher-level courses.

The Cambridge Nationals qualifications were reviewed to check if any of the competences required presented a potential barrier to disabled students. If this was the case, the situation was reviewed again to make sure that such competences were included only where essential to the subject.

7.4 Accessibility

There can be adjustments to standard assessment arrangements on the basis of the individual needs of students. It's important that you identify as early as possible whether students have disabilities or particular difficulties that will put them at a disadvantage in the assessment situation and choose a qualification or adjustment that allows them to demonstrate attainment.

If a student requires access arrangements in assessments that need approval from us, this must be gained in Access Arrangements Online. You must select the appropriate qualification type(s) at time of application. Approval from GCSE or AS and A Level applications alone no longer extends to other qualification types, but more than one qualification type can be selected when making an application. For guidance or support please contact the OCR Special Requirements Team.

The responsibility for providing adjustments to assessment is shared between your centre and us. Please read the JCQ booklet Access Arrangements and Reasonable Adjustments at www.jcq.org.uk.

If you have students who need a post-examination adjustment to reflect temporary illness, indisposition or injury when they took the assessment, please read the JCQ document A guide to the special consideration process, available at www.jcq.org.uk.

If you think any aspect of this qualification unfairly restricts access and progression, please email or call our Customer Support Centre.

The access arrangements permissible for use in this specification are as follows:

Access arrangement	Yes/No	Type of assessment
Reader/Computer reader	Yes	All assessments
Scribes/Speech recognition technology	Yes	All assessments
Practical assistants	Yes	All assessments
Word processors	Yes	All assessments
Communication professional	Yes	All assessments
Language modifier	Yes	All assessments
Modified question paper	Yes	Timetabled examinations
Extra time	Yes	All assessments with time limits

7.5 Requirements for making an entry

We provide information on key dates, timetables and how to submit marks on our website.

Centres must be registered with OCR in order to make any entries. We recommend that centres apply to become a registered centre with us, well in advance of making their first entries. Details on how to register with OCR can be found on our website.

It is essential that unit entry codes are quoted in all correspondence with OCR.

7.5.1 Making estimated unit entries

Estimated entries are not required for Cambridge National in Sport Science.

7.5.2 Making final unit entries

When making an entry, centres must quote unit entry codes and component codes. Students submitting work must be entered for the appropriate unit entry code from the table below.

Unit entry code	Component code	Assessment method	Unit titles
R180	01	Written paper	Reducing the risk of sports injuries and dealing with common medical conditions
R181 A	01	Moderated	Applying the principles of training: fitness and how it affects skill performance
R182 A	01	Moderated	The body's response to physical activity and how technology informs this
R183 A	01	Moderated	Nutrition and sports performance

The short title for these Cambridge National qualifications is CAMNAT and will display as such on our secure website, 'Interchange' and some of our administrative documents.

You do not need to register your students first. Individual unit entries should be made for the series in which you intend to submit an NEA unit or sit the externally assessed examination.

Only make a certification entry using the overall qualification code (see section 7.6) in the final series.

7.6 Certification rules

Students must be entered for qualification certification separately from unit assessment(s). If a certification entry is **not** made, no overall grade can be awarded.

Students may be entered for:

- OCR Level 1/Level 2 Cambridge National in Sport Science - certification code J828.

7.7 Unit and qualification resits

Students may resit each unit and the best unit result from the NEA units will be used to calculate the certification result.

Students may resit the externally assessed unit R180. **Please see section 7.2 for information relating to our terminal assessment approach.**

You must make sure that when arranging resit opportunities they are fair to all students and do not give students an unfair advantage over other students. For example, the student must not have direct guidance and support from the teacher in producing further evidence for NEA units. When resitting a NEA unit, students must submit new, amended or enhanced work, as detailed in the *JCQ Instructions for conducting coursework*.

Centres must make sure that when arranging resit opportunities they do not adversely affect other assessments being taken.

Arranging a resit opportunity is at the centre's discretion. Summative assessment series must not be used as a diagnostic tool and resits should only be planned if it is clear that the student has taken full advantage of the first assessment opportunity and formative assessment process.

7.8 Post-results services

A number of post-results services are available:

- Enquiries about results – If you think there might be something wrong with a student's results, you may submit an enquiry about results
- Missing and incomplete results – This service should be used if an individual subject result for a student is missing, or the student has been omitted entirely from the results supplied
- Access to scripts – You can ask for access to marked scripts.

Please refer to the JCQ Post-Results Services booklet and the OCR Administration page for further guidance about action on the release of results.

For internally assessed units the review of results process cannot be carried out for one individual student; the outcome of a review of moderation must apply to a centre's entire cohort.

Appendix A: Guidance for the production of electronic evidence

Structure for evidence

The centre-assessed (NEA) units in this qualification are units R181 – R183. For each student, all the tasks together will form a portfolio of evidence, stored electronically. Evidence for each unit must be stored separately.

An internal assessment portfolio is a collection of folders and files containing the student's evidence. Folders should be organised in a structured way so that the evidence can be accessed easily by a teacher or moderator. This structure is commonly known as a folder tree. It would be helpful if the location of particular evidence is made clear by naming each file and folder appropriately and by use of an index called 'Home Page'.

There should be a top-level folder detailing the student's centre number, OCR student number, surname and forename, together with the unit code (R181 – R183), so that the portfolio is clearly identified as the work of one student.

Each student's internal assessment portfolio should be stored in a secure area on the centre's network. Before submitting the portfolio to OCR, the centre should add a folder to the folder tree containing the internal assessment and summary forms.

Data formats for evidence

In order to minimise software and hardware compatibility issues it will be necessary to save students' work using an appropriate file format.

Students must use formats appropriate to the evidence that they are providing and appropriate to viewing for assessment and moderation. Open file formats or proprietary formats for which a downloadable reader or player is available are acceptable. **Where this is not available, the file format is not acceptable.**

Evidence submitted is likely to be in the form of word processed documents, presentation documents, digital photos and digital video.

To make sure files are compatible, all files submitted electronically must be in the formats listed below. Where new formats become available that might be acceptable, we will provide further guidance. We advise against changing the file format that the document was originally created in. Files should be exported in a generic format that can be opened on a PC computer system without any specialist software applications. It is the centre's responsibility to make sure that the electronic portfolios submitted for moderation are accessible to the moderator and fully represent the evidence available for each student.

Standard file formats acceptable as evidence for the Cambridge Nationals are listed here.

File type	File format	Max file size*
Audio	.3g2 .3ga .aac .aiff .amr .m4a .m4b .m4p .mp3 .wav	25GB
Compression	.zip .zipx .rar .tar .tar .gz .tgz .7z .zipx .zz	25GB
Data	.xls .xlsx .mdb .accdb .xlsb	25GB
Document	.odt .pdf .rtf .txt .doc .docx .dotx .pages	25GB
Image	.jpg .png .jpeg .tif .jfif .gif .psd .dox .pcx .bmp .wmf	15MB
Presentation	.ppt .pptx .pdf .gslides .pptm .odp .ink .potx .pub	25GB
Video	.3g2 .3gp .avi .flv .m4v .mkv .mov .mp4 .mp4v .wmp .wmv	25GB
Web	.wlmp .mts .mov-1 .mp4-1 .xspf .mod .mpg	25GB

*max file size is only applicable if using eSubmission system.

eSubmission is our browser-based file repository, to upload students' work. You can run eSubmission on any laptop or desktop computer running Windows or macOS. It supports the upload of files in the formats listed in the table above as long as they do not exceed the maximum file size. Other file formats and folder structures can be uploaded within a compressed file format.

When you view some types of files in eSubmission, they will be streamed in your browser. It would help your moderator or examiner if you could upload files in the format shown in the table below:

File type	File format	Chrome	Firefox
Audio	.mp3	Yes	Yes
Audio	.m4a	Yes	Yes
Audio	.aac	No	Yes
Document	.txt	Yes	Yes
Image	.png	Yes	Yes
Image	.jpg	Yes	Yes
Image	.jpeg	Yes	Yes
Image	.gif	Yes	Yes
Presentation	.pdf	Yes	Yes
Video	.mp4	Yes	Yes
Video	.mov	No	Yes
Video	.3gp	Yes	No
Video	.m4v	Yes	Yes
Web	.html	Yes	Yes
Web	.htm	Yes	Yes

Appendix B: Command words

External assessment

The table below shows the command words that will be used in exam questions. They show what we mean by the command word and how students should approach the question and understand its demand. Remember that the rest of the wording in the question is also important.

Word(s)	Students will....
Analyse	• Separate or break down information into parts and identify their characteristics or elements • Explain the pros and cons of a topic or argument and make reasoned comments • Explain the impacts of actions using a logical chain of reasoning
Annotate	• Add information, for example, to a table, diagram or graph until it is final • Add all the needed or appropriate parts
Calculate	• Get a numerical answer showing how it has been worked out
Choose	• Select an answer from options given
Circle	• Select an answer from options given
Compare and contrast	• Give an account of the similarities and differences between two or more items or situations
Complete	• Add all the needed or appropriate parts • Add information, for example, to a table, diagram or graph until it is final
Create	• Produce a visual solution to a problem (for example: a mind map, flowchart or visualisation)
Describe	• Give an account including all the relevant characteristics, qualities or events • Give a detailed account of
Discuss	• Present, analyse and evaluate relevant points (for example, for/against an argument)
Draw	• Produce a picture or diagram
Evaluate	• Make a reasoned qualitative judgement considering different factors and using available knowledge/experience
Explain	• Give reasons for and/or causes of • Use words or phrases such as 'because', 'therefore' or 'this means that' in answers
Fill in	• Add all the needed or appropriate parts • Add information, for example, to a table, diagram or graph until it is final
Identify	• Select an answer from options given • Recognise, name or provide factors or features
Justify	• Give good reasons for offering an opinion or reaching a conclusion
Label	• Add information, for example, to a table, diagram or graph until it is final • Add all the necessary or appropriate parts
Outline	• Give a short account, summary or description
State	• Give factors or features • Give short, factual answers

Non examined assessment (NEA)

The tables below show the command words that will be used in the NEA Marking Criteria grids. They explain the type of evidence that you should expect to see to meet each command word.

Mark Band (MB1) Words:

Command word	Meaning
Basic	• Work includes the minimum required. It is a starting point but is simplistic and not developed. • Understanding and skills are applied in a way that partly achieves the wanted or intended result, but it would not be useable without further input or work.
Brief/Briefly	• Work includes a small number of relevant facts or concepts but lacks detail, contextualisation or examples.
Dependent	• The student can perform a task when given regular assistance or help
Few	• Work produced is restricted or narrow. It includes less than half of the information or examples expected for a full response.
Hesitant(ly)	• Slow, uncertain, reluctant.
Inconsistent(ly)	• A level of performance which varies in quality over time.
Inefficient	• Outputs are produced but with great expense or effort because of poor organisation or design and not making the best use of available resources.
Limited	• Work produced is restricted in range or scope and includes only some of the information required. It evidences partial rather than full understanding. • Work produced is a starting point rather than a developed process, concept or output.
Minimal	• Includes very little in amount or quantity required.
Simple	• Includes a small number of relevant parts, which are not related to each other.
Superficial	• Work completed lacks depth and detail.

Mark Band (MB2) Words:

Command word	Meaning
Adequate(ly)	• Work includes the appropriate number of relevant facts or concepts but does not include the full detail, contextualisation or examples.
Assisted	• The student can perform a task with occasional assistance or help.
Part(ly)/Partial	• To some extent but not completely. • Work produced is inclusive in range and scope. It evidences a mainly developed application of understanding, performance or output needed. • Work produced results in a process, concept or output that would be useable for its purpose.
Some	• Work produced is inclusive but not fully comprehensive. It includes over half the information or examples expected for a full response.
Sound	• Valid, logical, shows the student has secured most of the relevant understanding, but points or performance are not fully developed. • Applies understanding and skills to produce the wanted or intended result in a way that would be useable.

Mark Band (MB3) Words:

Command word	Meaning
Accurate(ly)	• Acting or performing with care and precision. • Correct in all details.
All	• Work produced is fully comprehensive and wide-ranging. It includes almost all, or all the information or examples expected for a full response.
Clear(ly)	• Focused and accurately expressed, without ambiguity.
Complex	• Includes many relevant parts, all of which relate to each other logically.
Comprehensive(ly)	• The work produced is complete and includes everything required to show depth and breadth of understanding. • Applies the understanding and skills needed to successfully produce the wanted or intended result in a way that would be fully fit-for-purpose.
Confident(ly)	• Showing certainty over the information presented. • Showing certainty in actions performed.
Consistent(ly)	• A level of performance which does not vary in quality over time.
Critical	• Objective analysis and evaluation in order to form: a judgement, evaluation of the evidence or effective trouble shooting/fault finding.
Detailed	• Gives point by point consideration of all the key information.
Effective	• Applies the skills required to the task and is successful in producing the desired or intended result. • The work produced is effective in relation to a brief.
Efficient	• Able to produce results or outputs with the minimum expense or effort, because of good organisation or design and making the best use of available resources.
Full(y)	• Work produced is comprehensive in range and scope. It evidences a fully developed application of understanding, performance or output needed. • Work produced results in a process, concept or output that would be fully fit-for-purpose.
Independent(ly)	• The student can perform a task without assistance or reliance on others
Justify/Justified	• The reasons for doing something are explained in full.
Most(ly)	• Includes nearly all of what is expected to be included.
Perceptive	• Having or showing insight.
Specific	• Evidence is tightly focused on the individual or activity in question, rather than general or generic.
Well developed	• The student evidences skills that are mature and well-practised. • The student evidences knowledge or awareness that demonstrate solid underpinning understanding of the situation.
Wide (ranging)	• Includes many relevant details, examples or contexts; all of which are fully detailed, contextualised or exemplified.

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