NCFE Active IQ Level 1/2 Technical Award in Health and Fitness
QN: 603/7007/5



Qualification Specification

Version 1.6 November 2026

Qualification summary

Qualification title	**NCFE Active IQ Level 1/2 Technical Award in Health and Fitness**		
Ofqual qualification number (QN)	603/7007/5	**Aim reference**	60370075
Guided learning hours (GLH)	146	**Total qualification time (TQT)**	160
Qualification purpose	This qualification is part of a suite of technical award qualifications that have been developed to meet the Department for Education's (DfE's) requirements for high-quality, rigorous qualifications that: • have appropriate content for the learner to acquire core knowledge and practical skills • allow the qualification to be graded • provide synoptic assessment • enable progression to a range of study and employment opportunities		
Grading	Level 1 pass/merit/distinction (L1P/L1M/L1D) Level 2 pass/merit/distinction/distinction* (L2P/L2M/L2D/L2D*)		
Assessment method	Externally set: non-exam assessment (NEA) and an examined assessment (EA)		
Performance points	Please check with the DfE for the most up-to-date information, should there be any changes		

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Summary of changes

This section summarises the changes to this qualification specification since the last version.

Version	Publication date	Summary of amendments
V1.1	December 2022	Information has been added in assessment guidance to clarify how the non-exam assessment (NEA) will be moderated by NCFE.
V1.2	June 2023	Two additional hours have been added to the NEA assessment time to allow learners 2 hours of preparation and research time before sitting their NEA. The GLH has been increased from 144 to 146, and the TQT has been increased from 158 to 160. The moderation section has been updated for clarification by removing the statement advising that moderators are not aware of the marks awarded by the centre's assessors while looking at samples of work. The 'How the qualification is assessed' section has been updated to clarify that there is only 1 attempt permitted for each assessment.
V1.3	August 2023	Minor amendments have been made to terminology within various content areas.
V1.4	August 2025	Reference to Hodder Education have been updated to Hachette Learning and any broken website links have been updated.
V1.5	November 2025	Minimum age removed from qualification summary and NEA brief release date updated.
V1.6	November 2026	Qualification title changed and template updated to new version.

Section 1: introduction

If you are using this qualification specification for planning purposes, please make sure that you are using the most recent version.

Aims and objectives

This qualification aims to:

- focus on the study of the health and fitness sector
- offer breadth and depth of study, incorporating a key core of knowledge
- provide opportunities to acquire a number of practical and technical skills

The objectives of this qualification are to:

- develop a broad understanding of the structure and function of body systems
- identify the effects of health and fitness activities on the body
- understand health and fitness and the components of fitness
- apply the principles of training
- understand the impact of lifestyle on health and fitness
- test and develop components of fitness
- apply health and fitness analysis and set goals
- plan, develop and take part in a health and fitness programme and understand how to prepare safely

Support handbook

This qualification specification must be used alongside the support handbook where appropriate, which can be found on the NCFE website. This contains additional supporting information to help with planning, delivery and assessment.

This qualification specification contains all the qualification-specific information you will need that is not covered in the support handbook, such as information regarding moderation.

Entry guidance

This qualification is designed for learners aged 14 to 16 in schools and colleges but is also accessible for post-16 learners.

It is a vocational qualification equivalent to GCSE grades 8.5 to 1.

There are no specific prior skills/knowledge a learner must have for this qualification.

Registration is at the discretion of the centre, in accordance with equality legislation, and should be made on the Portal.

Centres are responsible for ensuring that all learners are capable of achieving the aims and objectives of the qualification and complying with the relevant literacy, numeracy and health and safety requirements.

Learners registered on this qualification should not undertake another qualification at the same level, or with the same/a similar title, as duplication of learning may affect funding eligibility.

Achieving this qualification

To be awarded this qualification, learners are required to successfully demonstrate the knowledge and skills to meet the requirements of all content areas of this qualification.

The awarding of this qualification is compensatory. Learners must obtain enough marks to achieve a minimum of a level 1 pass to achieve the overall qualification. Marks can be obtained from the non-exam assessment (NEA) and/or the externally set examined assessment (EA).

Qualification title		NCFE Active IQ Level 1/2 Technical Award in Health and Fitness
Qualification number (QN)		603/7007/5
Level		Combined level 1/2
Guided learning hours (GLH) (Total GLH has been rounded up to the nearest hour)		146
GLH breakdown		• 120 hours delivery • 1 hour 30 minutes EA • 22 hours NEA plus 2 hours preparation and research time
Non-exam assessment (NEA)	Weighting (60%)	Externally set, internally marked and externally moderated: • synoptic project
Examined assessment (EA)	Weighting (40%)	Externally set and externally marked: • written exam
Total	100%	Overall qualification grades: L1P, L1M, L1D, L2P, L2M, L2D, L2D*

Please refer to the content area summaries in section 2 for further information.

Progression

Depending on the grade the learner achieves in this qualification, they could progress to level 2 and level 3 qualifications and/or GCSE/A Levels.

Learners who achieve at level 1 might consider progression to level 2 qualifications post-16, such as:

- GCSE Physical Education
- study at level 2 in a range of technical routes that have been designed for progression to employment, apprenticeships and further study; examples might include level 2 technical certificates in:
  - sport and physical activity
  - sport and activities leaders
  - exercise and fitness instruction
  - exercise and fitness instruction for wellbeing
  - coaching sport and instructing physical activities
  - physical activity and exercise science

Technical certificate qualifications provide post-16 learners with the knowledge and skills they need for skilled employment or for further technical study.
Learners who achieve at level 2 might consider progression to post-16 level 3 qualifications, such as:

- level 3 applied generals in:
  - sport studies
  - sport and physical activity
  - sports performance and excellence
  - sport and exercise science
- level 3 qualifications in:
  - sport and physical activity
  - personal training
  - personal training and behaviour change
  - fitness services
  - exercise science and personal training
  - personal training for health, fitness and performance
  - physical activity and exercise science
- A Level Physical Education (this will support progression to higher education)

Learners could also progress into employment or onto an apprenticeship. The understanding and skills gained through this qualification could be useful to progress onto an apprenticeship in the health and fitness sector through a variety of occupations that are available within the sector, such as health assistants, fitness instructors or personal trainers.

Staffing requirements

There are no additional staffing requirements for this qualification. Please see the staffing requirements section in the support handbook.

Resource requirements

There are no mandatory resource requirements for this qualification, but centres must ensure learners have access to suitable resources to enable them to cover all content areas.

Real work environment requirement/recommendation

This is a knowledge-only qualification. Experience in the real work environment is not required.

Work/industry placement experience

This is a knowledge-only qualification. Work/industry placement experience is not required.

Purpose statement

Who is this qualification for?

The Level 1/2 Technical Award in Health and Fitness is designed for learners who want an introduction to health and fitness that includes a vocational and project-based element. The qualification will appeal to learners who wish to pursue a career in the health and fitness sector or progress onto further study.

The NCFE Active IQ Level 1/2 Technical Award in Health and Fitness (603/7007/5) complements GCSE qualifications. It is aimed at 14 to 16-year-olds studying a key stage 4 (KS4) curriculum who are interested in the health and fitness sector. This qualification is designed to match the rigour and challenge of GCSE study. The qualification is graded at level 1 pass/merit/distinction and level 2 pass/merit/distinction and distinction* (equivalent to GCSE grades 8.5 to 1). More information on grading can be found in section 2 of this qualification specification.

This qualification focuses on an applied study of health and fitness and learners will gain a broad knowledge and understanding of working in the sector.

This qualification has been designed to sit alongside the requirements of core GCSE subjects and is appropriate for learners who are motivated and challenged by learning through hands-on experiences and through content that is concrete and directly related to those experiences.

It is distinct from GCSE Physical Education, as it encourages the learner to use knowledge and practical tools to focus on supporting people with specific health and fitness goals.

The study of health and fitness involves understanding the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals.

This level 1/2 qualification is appropriate for learners who are looking to develop a significant core of knowledge and understanding in health and fitness and apply that knowledge through a project.

What will the learner study as part of this qualification?

This qualification will promote the learner's understanding of:

- the structure and function of body systems
- the effects of health and fitness activities on the body
- health and fitness and the components of fitness
- the principles of training
- the impact of lifestyle on health and fitness
- testing and developing components of fitness
- health and fitness analysis and setting goals
- planning, developing and taking part in a health and fitness programme and understanding how to prepare safely

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

Learners will develop the following knowledge and skills:

- adapting their own ideas and responding to feedback
- evaluating their own work
- analysing data and making decisions
- skills that are essential for the health and fitness sector, such as fitness evaluation skills, responding to health data, independent working, working to deadlines and efficient use of resources
- an ability to reflect upon their preferred learning style and identify relevant study skills

Learners will develop the following skills that will inform future training and work in the health and fitness sector:

- decision making
- observation
- resourcefulness
- problem solving
- planning
- evaluation
- reflection
- interpersonal skills
- professional behaviours
- respect and appreciation of others
- an ability to reflect upon their preferred learning style and identify relevant study skills

Successful completion of this qualification will enable learners to progress to level 2 or 3 qualifications in related subjects.

The knowledge and skills gained will provide a secure foundation for learners to progress into career opportunities in the health and fitness sector and provide a valuable platform for further study.

Which subjects will complement this qualification?

The following subject areas will complement this qualification:

- nutrition
- mathematics
- English
- science

This list is not exhaustive, and a range of other subject areas may also be appropriate.

How the qualification is assessed

Assessment is the process of measuring a learner's skill, knowledge and understanding against the standards set in a qualification.

The qualification has **two** assessments externally set by NCFE: **one** NEA and **one** written EA. Only **one** attempt at each assessment is permitted.

Unless stated otherwise in this qualification specification, all learners taking this qualification must be assessed in English and all assessment evidence presented for external quality assurance must be in English.

Non-exam assessment (NEA)	
Assessment method	**Description**
NEA Externally set Internally marked and externally moderated	60% of the technical award 88 marks The completion time for the NEA is 22 hours plus 2 hours preparation and research time. The NEA will assess the learner's ability to effectively draw together their knowledge, understanding and skills from across the whole vocational area. The NEA will target the following assessment objectives (AOs): AO1, AO2, AO3, AO4 and AO5.
NEA availability	The learner should not undertake the NEA until all content areas have been delivered. This is to ensure learners are in a position to complete the NEA successfully. A different NEA brief will be released during the first term of each academic year.

Non-exam assessment (NEA)

NEA encourages the learner to combine elements of their learning and to show accumulated knowledge and understanding across the content areas.

NEA enables the learner to show their ability to integrate and apply knowledge, understanding and skills with breadth and depth. It also requires them to demonstrate their capability to apply knowledge, understanding and skills across all content areas that are being assessed.

The NEA is internally assessed work and should be completed by the learner in accordance with the qualification specification. Information on delivery guidance and assessment hours for the internal assessment will be available in the NEA brief. To support with this, we have also created a sample NEA brief, which is available on the qualification page under support materials. A representative number of assessment hours should be timetabled into the scheme of work. Internal assessment hours must be administered outside of scheduled teaching and learning hours and should be supervised and assessed by the teacher.

Any work submitted for internal assessment must be completed during scheduled assessment hours in accordance with the scheme of work and must be authenticated and attributable to the learner. The teacher must be satisfied that the work produced is the learner's own and the learner must declare that the work is their own.

In practice, this means that all of the NEA will be completed in normal class time within scheduled assessment hours and kept separate from any teaching and learning hours.

Prior to commencing the formal NEA time, learners should be allocated 2 hours of preparation and research time. This 2-hour time period is entirely open book, where learners can access their teaching and learning materials, text books, internet and other published materials. From this they should develop a research support pack which can be used as their source of information when completing the NEA. For more information on the 2 hours of preparation and research time, please see the tutor guidance.

The internally assessed NEA component is based on coverage of the qualification content areas, which are assessed holistically against descriptors to achieve a grade.

Each learner must create a portfolio of evidence generated from appropriate assessment tasks that demonstrates achievement of all content areas. The assessment tasks should allow the learner to respond to a real-life situation that they may face when in employment. On completion, learners must declare that the work produced is their own and the assessor must countersign this. Examples of suitable evidence for the portfolio are provided in section 2.

Examined assessment (EA)	
Assessment method	**Description**
EA Externally set Written examination Externally marked	40% of the technical award Written examination: • 80 marks • 1 hour 30 minutes • a mixture of multiple-choice, short-answer and extended-response questions The written EA is a terminal assessment and will assess the learner's knowledge and understanding of all content areas and target the following AOs: AO1, AO2 and AO3.
EA availability	The examination date is expected to take place in May/June every year Please refer to the external assessment timetable available on the NCFE website.

Examined assessment (EA)

EAs are set and marked by NCFE. The assessment assesses learners' knowledge and understanding of the content areas of this qualification. Centres must not assess, internally quality assure or otherwise access or review any EA materials or learner responses at any time and must adhere to the required exam regulations at all times.

The EA is on a set date and time (invigilated). NCFE specifies the date and time that the EA must be administered at the centre and also publishes in advance the dates on which EA results will be released.

A variety of assessment questions will be used, including multiple-choice, short-answer and extended-response questions. This will enable learners to demonstrate their breadth of knowledge and understanding of the subject and ensure achievement at the appropriate level, including stretch and challenge. Questions will be written in plain English and in a way that is supportive and accessible to learners of all abilities.

As far as possible, real-world case studies and contexts that are relevant to the sector will be used. This is to engage and stimulate learners under examination conditions and to facilitate the drawing out of a wide range of knowledge and skills developed throughout their learning.

All questions will have available marks clearly identified. The EA will be carefully constructed following a rigorous quality control process to ensure that the assessment is valid.

The EA material will be sent out in time for the start of the assessment. Assessment materials must be kept secure at all times in line with the requirement of the regulations for the conduct of external assessment.

You must return all EA materials and partially or fully completed learner work to NCFE within 1 working day of the EA taking place or the final timetabled supervised/invigilated session.

Rationale for synoptic assessment

Synoptic assessment encourages the learner to combine elements of their learning and to show accumulated knowledge and understanding across content areas.

Synoptic assessment enables the learner to show their ability to integrate and apply knowledge, understanding and skills with breadth and depth. It also requires them to demonstrate their capability to apply knowledge, understanding and skills across a range of content areas that are being assessed.

Enquiries about results

All enquiries relating to learners' results must be submitted in line with our enquiries and appeals about results and assessment decisions policy, which is available on the policies & documents page on the NCFE website.

External assessment conditions

For more information on external assessment conditions and conducting external assessments, please see the regulations for the conduct of external assessments and qualification-specific instructions for delivery on the policies & documents page on the NCFE website.

There is 1 assessment window during the year. Please refer to the external assessment timetable on the NCFE website for the specific date.

Assessment windows

For assessments sat in windows, the centre must enter learners to the specified window. This will be either a set date and time assessment or a window in which the assessment will be completed.

For qualifications with 'entry on registration', the centre will choose the assessment window at the point of registering the learner. The last date that we will accept learner work for a specified assessment window is by that assessment window's cut-off date.

Please note: the 'cut-off date' is the last day that returned scripts will be accepted for the specified assessment window.

On completing their work at the end of the assessment window, learners must sign the assessment declaration to authenticate the work produced as their own. Centres must ensure that all assessments are submitted for marking in accordance with the assessment windows.

Scheme of assessment

The following table summarises the qualification's scheme of assessment.

Assessments	Assessment time	% weighting	Raw marks	Scaling factor	Scaled marks*	Assessment conditions	Marking
NEA	22 hours (plus 2 hours preparation and research time)	60%	88	1.364	120	Supervised	Internal, with external moderation
EA	1 hour 30 minutes	40%	80	1.000	80	Invigilated	External
Assessment total	**23 hours 30 minutes** (plus 2 hours preparation and research time)	**100%**			200		

Assessment objectives (AOs)

The assessment of our technical awards is mapped against assessment objectives (AOs). These AOs provide a consistent framework for learners and are applied synoptically, allowing learners to show their knowledge, understanding and skills from across the full breadth and depth of the qualification.

The AOs that will be assessed against the content in our technical awards are:

AO1	**Recall knowledge and show understanding** The emphasis here is for learners to recall and communicate the fundamental elements of knowledge and understanding.
AO2	**Apply knowledge and understanding** The emphasis here is for learners to apply their knowledge and understanding to real-world contexts and novel situations.
AO3	**Analyse and evaluate knowledge and understanding** The emphasis here is for learners to develop analytical thinking skills to make reasoned judgements and reach conclusions.
AO4	**Demonstrate and apply relevant technical skills, techniques and processes** The emphasis here is for learners to demonstrate the essential technical skills relevant to the vocational sector by applying the appropriate processes, tools and techniques.
AO5	**Analyse and evaluate the demonstration of relevant technical skills, techniques and processes** The emphasis here is for learners to analyse and evaluate the essential technical skills, processes, tools and techniques relevant to the vocational sector.

Assessment objective (AO) weightings

The table below shows the approximate weightings for each of the AOs in the technical award assessments.

AOs	Non-exam assessment (NEA) (%)	Examined assessment (EA) (%)	Overall weighting (%)
AO1	7%	40–45%	20.2–22.2%
AO2	17%	35–40%	24.2–26.2%
AO3	23.5%	20–25%	22.1–24.1%
AO4	36%	N/A	21.6%
AO5	16.5%	N/A	9.9%
Overall weighting of assessments	**60%**	**40%**	**100%**

The purpose of the qualification means that it is necessary to assess understanding through 2 means of assessment, an internal NEA and an external EA. The variance in assessment methods used allows for a range of knowledge, understanding and skills to be assessed using the most fit-for-purpose method.

Non-exam assessment (NEA)

Refer to the mark scheme for the current NEA where you will find the information required to mark the NEA tasks and their descriptors.

Centres will mark the NEA, and this will then be submitted to NCFE for moderation.

Examined assessment (EA)

The EA will be submitted to NCFE for marking to calculate the overall grades for learners.

Moderation

Moderation occurs before results are issued and helps us to ensure assessment judgements made by centres are in line with NCFE's guidelines and are reliable across centres. During moderation the moderator will re-assess a sample of learners' non-exam assessments (NEA) marked by assessors within the centre.

Moderators will look at a subsample of learner work (either remotely or through a visit). The sample size will be selected using the Joint Council for Qualifications (JCQ) sampling guidelines and include assessments from across a range of centre marks, which include a learner with the highest centre mark and a learner with the lowest non-zero centre mark. Where an assessment has been carried out by more than 1 assessor, all assessors will be included in the sample, where possible.

Overall grading descriptors

To achieve a level 2 distinction, learners will be able to:

- recall and apply highly relevant knowledge and understanding in a highly comprehensive manner of the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- analyse and evaluate to make reasoned judgements and reach well-supported conclusions on the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- safely and effectively demonstrate highly relevant skills, techniques and processes applicable to the sector when using a wide range of equipment when planning, developing and taking part in a health and fitness programme
- analyse and evaluate their own demonstration of relevant skills, techniques and processes applicable to the sector when planning, developing and taking part in a health and fitness programme in a highly comprehensive manner

To achieve a level 2 pass, learners will be able to:

- recall and apply mostly relevant knowledge and understanding in a mostly detailed manner regarding functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- analyse and evaluate to make mostly reasoned judgements and reach coherent conclusions on the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- safely and effectively demonstrate mostly relevant skills, techniques and processes relevant to the sector when using a wide range of equipment when planning, developing and taking part in a health and fitness programme
- analyse and evaluate their own demonstration of relevant skills, techniques and processes relevant to the sector when planning, developing and taking part in a health and fitness programme in a mostly detailed manner

To achieve a level 1 pass, learners will be able to:

- recall and apply limited knowledge and understanding, in a limited manner that has some relevance and limited detail of the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- analyse and evaluate to make adequate judgements, with some reasoning and reach straightforward conclusions on the functions of the body systems, understanding the principles of training, knowing how the body reacts in the short and long-term to fitness activities, how to create and apply lifestyle analysis tools and how to create a fitness programme for a person with specific goals
- safely and effectively demonstrate a limited level of skills, techniques and processes relevant to the sector when using a wide range of equipment when planning, developing and taking part in a health and fitness programme
- analyse and evaluate their own demonstration of relevant skills, techniques and processes applicable to the sector when planning, developing and taking part in a health and fitness programme in a reasonable manner, with some detail

Grading information

The following grades are available for the qualification; level 1 pass, level 1 merit, level 1 distinction, level 2 pass, level 2 merit, level 2 distinction, level 2 distinction*.

The qualification is linear, meaning both assessments must be taken in the same assessment series and cannot be combined across different assessment series. After both assessments are complete, the marks for each assessment are combined to give a final mark for each learner. Where raw marks do not reflect the required weighting of the assessment, a scaling factor is applied to the raw mark prior to aggregation.

Scaling factors can be found in the table below.

Assessment	Maximum raw mark	Weighting	Scaling factor	Maximum scaled mark
NEA	88 marks	60%	1.364	120
EA	80 marks	40%	1.000	80
			Total	200

For each series, grade boundaries are set by NCFE using a variety of statistical and judgemental evidence. Each learner's overall grade is determined by comparing their combined final mark with the grade boundaries for that series.

Where a learner achieves insufficient marks across the 2 assessments in the series to achieve a level 1 pass, they will be awarded an unclassified (U) result.

Section 2: teaching content and assessment guidance

This section provides details of the structure and content of this qualification.

Information in the teaching content section must be covered by the teacher during the delivery of the content areas and should be considered as mandatory teaching content.

The verb 'understand' encompasses both 'knowledge' and 'understanding' within the content areas of this qualification. Each content area will read 'the learner will understand'.

To make cross-referencing assessment and quality assurance easier, we have used a sequential numbering system in this document for each content area. The numbering system used refers to a content area, subject topic, and teaching content (for example, 1.1.1 refers to the content area (first number 1), the subject topic within that learning content (second number 1.1) and the teaching content within the subject topic (third number 1.1.1)). This will support signposting feedback and tracking.

Anything within the teaching guidance is advisory and optional and is intended to provide useful advice and guidance to support delivery of the teaching content.

The types of evidence listed are for guidance purposes only. Within learners' portfolios, other types of evidence are acceptable if all content areas are covered.

Whilst studying the qualification, learners should reflect on the importance of knowing and developing their preferred learning style. They should also be able to identify a range of individual study skills they can use in order to study effectively.

For further information or guidance about this qualification, please contact our customer support team.

Content areas

This qualification consists of 8 content areas.

Content area number	Content area title	Suggested GLH
Content area 1	Structure and function of body systems	25
Content area 2	Effects of health and fitness activities on the body	5
Content area 3	Health and fitness and the components of fitness	10
Content area 4	Principles of training	10
Content area 5	Testing and developing components of fitness	25
Content area 6	Impact of lifestyle on health and fitness	10
Content area 7	Applying health and fitness analysis and setting goals	10
Content area 8	Structure of a health and fitness programme and how to prepare safely	25

Content areas

Content areas
1. Structure and function of body systems 1.1 Skeletal system 1.1.1 Structure of the skeleton 1.1.2 Functions of the skeletal system 1.1.3 Types of bones 1.1.4 Types of joints 1.1.5 Joint actions 1.1.6 Structure of a synovial joint 1.1.7 Structure of the spine 1.1.8 Posture 1.2 Muscular system 1.2.1 Types of muscle 1.2.2 Structure of the muscular system 1.2.3 Muscle movement 1.2.4 Muscle contractions 1.2.5 Muscle fibre types 1.2.6 Performance of muscle fibres 1.3 Respiratory system 1.3.1 Structure of the respiratory system 1.3.2 Functions of the respiratory system 1.3.3 Diffusion and gaseous exchange 1.3.4 Respiratory measurements 1.3.5 Respiratory changes 1.4 Cardiovascular system 1.4.1 Structure and function of the blood vessels 1.4.2 Blood redistribution 1.4.3 Structure of the heart 1.4.4 The cardiac cycle 1.4.5 Cardiovascular measurements 1.4.6 Blood pressure 1.5 Energy systems
2. Effects of health and fitness activities on the body 2.1 Effects of health and fitness activities on the body 2.1.1 Short-term effects of health and fitness activities (during and/or up to 36 hours after) 2.1.2 Long-term effects of health and fitness activities (over 36 hours and up to months after)
3. Health and fitness and the components of fitness 3.1 Understanding health and fitness 3.2 Components of fitness 3.2.1 Health-related fitness 3.2.2 Skill-related fitness
4. Principles of training 4.1 Principles of training 4.1.1 Understanding the principles of training 4.1.2 Principles of overload

Content areas
5. Testing and developing components of fitness 5.1 Fitness testing 5.1.1 Health-related fitness tests 5.1.2 Skill-related fitness tests 5.1.3 Using data 5.1.4 Validity and reliability 5.2 Training methods 5.3 Optimising a health and fitness programme 5.3.1 Heart rate training zones 5.3.2 Repetitions and sets
6. Impact of lifestyle on health and fitness 6.1 Lifestyle factors 6.1.1 Activity levels 6.1.2 Diet 6.1.3 Rest and recovery 6.1.4 Other factors
7. Applying health and fitness analysis and setting goals 7.1 Health and fitness analysis and goal setting 7.1.1 Health and fitness analysis tools 7.1.2 Collecting, using, analysing and evaluating data 7.1.3 Goal setting
8. Structure of a health and fitness programme and how to prepare safely 8.1 The structure of a health and fitness training programme 8.1.1 Components of a health and fitness programme 8.1.2 Health and safety 8.1.3 The session plan 8.1.4 Warm-up/cool-down 8.1.5 Main activity section 8.1.6 Reviewing the activity session 8.2 Timescales and goal setting

Teaching content

Information in this section must be covered by the teacher during the delivery of this qualification.

1. Structure and function of body systems

1.1	**Skeletal system**
1.1.1	**Structure of the skeleton**

	The learner will understand how to locate the bones in the 2 sections of the skeleton:
	
	• axial:
	  ○ cranium
	  ○ sternum
	  ○ ribs
	  ○ vertebrae
	• appendicular:
	  ○ clavicle
	  ○ scapula
	  ○ humerus
	  ○ radius
	  ○ ulna
	  ○ carpals
	  ○ metacarpals
	  ○ tarsals
	  ○ metatarsals
	  ○ pelvis
	  ○ femur
	  ○ tibia
	  ○ fibula
	  ○ phalanges

1.1.2	**Functions of the skeletal system**
	The learner will understand the functions of the skeletal system and how they assist during sport/activity: • support • movement • protection of vital organs • storage of minerals • blood cell production • shape/structure

1.1.3	Types of bones

	The learner will understand the types of bones in the body, their primary function and how they relate to movement (where applicable):
	
	• long:
	  ○ humerus
	  ○ femur
	  ○ clavicle
	  ○ radius
	  ○ ulna
	  ○ metacarpals
	  ○ metatarsals
	  ○ tibia
	  ○ fibula
	  ○ phalanges
	• flat:
	  ○ ribs
	  ○ sternum
	  ○ scapula
	  ○ pelvis
	  ○ cranium
	• irregular – vertebrae
	• short:
	  ○ carpals
	  ○ tarsals
	• sesamoid – patella

1.1.4	**Types of joints**

	The learner will understand the function of joints and the different types of joints in the body:
	
	• fixed joints:
	  ○ skull
	  ○ pelvis
	• slightly moveable joints – vertebrae
	• synovial joints:
	  ○ ball and socket:
	  ▪ shoulder
	  ▪ hip
	  ○ hinge:
	  ▪ elbow
	  ▪ ankle
	  ▪ knee
	  ○ pivot
	  ○ saddle
	  ○ condyloid
	  ○ gliding

1.1.5	Joint actions

	The learner will understand types of movement, how they relate to ball and socket and hinge joints and their application to specific actions in health and fitness:
	
	• flexion:
	  ○ how it relates to joints:
	  ▪ decreases the angle at a joint
	  ○ application to actions in health in fitness:
	  ▪ reduces the angle at the knee and ankle joints
	• extension:
	  ○ how it relates to joints:
	  ▪ increases the angle at a joint
	  ○ application to actions in health and fitness:
	  ▪ extension of the elbow joint
	• rotation:
	  ○ how it relates to joints:
	  ▪ revolves a bone or limb around a single axis
	  ○ application to actions in health and fitness:
	  ▪ or throwing motions
	• abduction:
	  ○ how it relates to joints:
	  ▪ moves a limb away from the midline of the body
	  ○ application to actions in health and fitness:
	  ▪ raising arms out to the side of the body
	• adduction:
	  ○ how it relates to joints:
	  ▪ moves a limb towards the midline of the body
	  ○ application to actions in health and fitness:
	  ▪ bring arms to the side of the body
	• plantarflexion:
	  ○ how it relates to joints:
	  ▪ increases the angle at the ankle joint
	  ○ application to actions in health and fitness:
	  ▪ causes the toes to point downwards
	• dorsiflexion:
	  ○ how it relates to joints:
	  ▪ raises the toes upwards towards the shin
	  ○ application to actions in health and fitness:
	  ▪ used in any action requiring jumping

1.1.6	**Structure of a synovial joint**
	The learner will understand the structure of a synovial joint, the function of each component and how to identify the articulating bones of each synovial joint: • articulating cartilage – a smooth lubricated surface to absorb shock and aid movement • ligaments – stabilise joints and prevent dislocation • tendons – connect muscle to the bones to enable movement • synovial membrane – lines the joint cavities and makes synovial fluid

	• synovial fluid – lubricates the joint to reduce friction between the articular cartilages • joint capsule – surrounds and seals the synovial joint to provide stability
1.1.7	**Structure of the spine**

	The learner will understand how to locate the different regions of the vertebral column:
	
	• cervical:
	  ○ atlas
	  ○ axis
	• thoracic
	• lumbar
	• sacrum
	• coccyx

1.1.8	**Posture**

	The learner will understand the effects posture can have when performing health and fitness activities and how to recognise postural changes:
	
	• effects of posture:
	  ○ good posture:
	  ▪ prevents back ache
	  ▪ prevents fatigue
	  ▪ improves technique
	  ○ bad posture:
	  ▪ impairs lung function
	  ▪ causes back, neck and shoulder pain
	  ▪ impairs technique
	• postural changes:
	  ○ kyphosis
	  ○ lordosis
	  ○ scoliosis

1.2	**Muscular system**
1.2.1	**Types of muscle**

	The learner will understand the types of muscle, where they are located and their characteristics and functions:
	
	• cardiac:
	  ○ found in the heart
	  ○ involuntary
	  ○ aids blood flow through the heart
	• smooth:
	  ○ found in multiple locations:
	  ▪ digestive tract
	  ▪ blood vessels
	  ▪ stomach
	  ▪ uterus

	▪ bladder ○ contracts in all directions ○ involuntary ○ aids digestion ○ helps the distribution of blood • skeletal: ○ works voluntarily ○ aids with movement
1.2.2	**Structure of the muscular system**
	The learner will understand the structure of the muscular system by locating the main muscles of the muscular system and understanding their relation to joint actions: • deltoid: ○ causes abduction of the shoulder away from the body • trapezius: ○ allows movement of the head and shoulder blades • latissimus dorsi: ○ allows movement of shoulder joints ○ causes adduction of the arm towards the body • pectorals: ○ causes rotation of the humerus bone ○ allows adduction of the arm • biceps: ○ causes flexion of the elbow joint • triceps: ○ causes the extension of the arm at the elbow joint • abdominals: ○ allows flexion of the trunk and rotation of the spine ○ allows flexion of the hips • obliques: ○ causes rotation of the upper body • quadriceps: ○ causes the extension of the leg at the knee joint • hamstrings: ○ allows flexion of the knee joint while walking or running • gastrocnemius: ○ causes plantarflexion at the ankle joint • gluteals: ○ extends the hip joint allowing the whole leg to move backwards • hip flexors: ○ causes flexion at the hip to bring the leg forwards • tibialis anterior: ○ causes dorsiflexion to raise to toes towards the shin
1.2.3	**Muscle movement**

	The learner will understand how muscles work in antagonistic pairs to produce movement at a joint and how to apply this principle to specific actions in health and fitness:
	
	• agonist (prime mover)
	• antagonist
	• origin/insertion:
	  ○ biceps
	  ○ triceps
	  ○ quadriceps
	  ○ hamstrings

1.2.4	**Muscle contractions**

	The learner will understand the types of muscle contractions and how to apply these to specific actions and muscles:
	
	• isotonic:
	  ○ concentric
	  ○ eccentric
	• isometric – static contraction

1.2.5	**Muscle fibre types**

	The learner will understand the different muscle fibre types and their characteristics, including colour, contraction speed and fatigue speed and which muscle fibre types are suited to different types of health and fitness activities:
	
	• type 1 (slow twitch fibres):
	  ○ characteristics:
	  ▪ dark red in colour
	  ▪ slow contraction speed
	  ▪ slow to fatigue
	  ▪ can provide their own source of energy and sustain force for an extended time but cannot generate a significant amount of force
	  ○ best suited to the following health and fitness activities:
	  ▪ long-distance running
	  ▪ long-distance cycling
	  ▪ long-distance swimming
	• type 2 (fast twitch fibres), to include type 2A and type 2B:
	  ○ characteristics:
	  ▪ white in colour
	  ▪ fast contraction speed
	  ▪ fast to fatigue
	  ▪ can provide bigger and more powerful forces but over a shorter period of time
	  ○ best suited to the following health and fitness activities:
	  ▪ sprinting
	  ▪ jumping
	  ▪ weightlifting

1.2.6	**Performance of muscle fibres**
	The learner will understand that individuals have differing proportions of type 1 and type 2 muscle fibres and how specific training can affect the performance of muscle fibre types: • type 1 – training at low intensity but performing higher repetitions improves performance of muscle fibre type • type 2 – training at high intensity but performing lower repetitions improves performance of muscle fibre type
1.3	**Respiratory system**
1.3.1	**Structure of the respiratory system**
	The learner will understand the pathway of air through the respiratory system and how to locate the following structures: • nose/mouth • trachea • lungs • bronchi • bronchioles • alveoli • pharynx • larynx • ribs • diaphragm • intercostal muscles
1.3.2	**Functions of the respiratory system**
	The learner will understand the mechanics of breathing in (inhalation) and breathing out (exhalation): • intercostal muscles • ribs • diaphragm
1.3.3	**Diffusion and gaseous exchange**

	The learner will understand the terms 'diffusion' and 'gaseous exchange' and the features of the alveoli that assist gaseous exchange:
	
	• diffusion – gas moving from a high concentration to a low concentration
	• gaseous exchange – the movement of oxygen and carbon dioxide between the alveoli and the capillaries in the lungs
	• features of the alveoli that assist gaseous exchange:
	  ○ moist, very thin walls (1 cell thick)
	  ○ provide large surface area for gaseous exchange to occur
	  ○ short diffusion pathway
	  ○ surrounded by capillaries

1.3.4	**Respiratory measurements**
	The learner will understand how to interpret the spirometer traces: • breathing rate (BR) • tidal volume (TV) • vital capacity (VC) • inspiratory reserve volume (IRV) • expiratory reserve volume (ERV) • residual volume (RV)
1.3.5	**Respiratory changes**

	The learner will understand the respiratory changes that happen from rest to participating in health and fitness activities:
	
	• muscles demand more oxygen as they work harder
	• rate and depth of breathing increases to:
	  ○ meet oxygen demands
	  ○ release carbon dioxide through exhalation

1.4	**Cardiovascular system**
1.4.1	**Structure and function of the blood vessels**

	The learner will understand the structure of the blood vessels and how the structure relates to the functions of blood distribution:
	
	• veins:
	  ○ thin walls
	  ○ wide lumen
	  ○ contain valves to prevent the backflow of blood
	  ○ carry blood to the heart
	  ○ carry blood under low pressure
	• arteries:
	  ○ thick, muscular walls
	  ○ narrow lumen
	  ○ carry blood away from the heart to the body and to the lungs
	  ○ carry blood under high pressure
	  ○ smooth muscle that can vasoconstrict/vasodilate to reduce or increase blood flow
	• capillaries:
	  ○ the smallest blood vessels
	  ○ very thin walls (1 cell thick)
	  ○ assist with gaseous exchange at the alveoli in the lungs
	  ○ diffusion of gases at muscles and other organs

1.4.2	**Blood redistribution**

	The learner will understand how the blood vessels redistribute blood (vascular shunt) during health and fitness activities:
	
	• vascular shunt – the function of blood redistribution to the muscles with greater demand, while diverting away from areas of lower demand, through:
	  ○ the widening of blood vessels (vasodilation)
	  ○ the narrowing of blood vessels (vasoconstriction)

1.4.3	**Structure of the heart**

	The learner will understand the 2 sides that the heart is divided into (left and right) and how to locate the following structures:
	
	• atrium (left and right)
	• ventricles (left and right)
	• pulmonary vein
	• pulmonary artery
	• aorta
	• vena cava
	• valves:
	  ○ bicuspid
	  ○ tricuspid
	  ○ aortic
	  ○ pulmonary
	• septum

1.4.4	**The cardiac cycle**
	The learner will understand the order of the cardiac cycle and the pathway of deoxygenated and oxygenated blood around the heart: • deoxygenated blood: from the body → vena cava → right atrium → tricuspid valve → right ventricle → pulmonary valve → pulmonary artery → to the lungs → pick up oxygen to become oxygenated • oxygenated blood: from the lungs → pulmonary vein → left atrium → bicuspid valve → left ventricle → aortic valve → aorta → to the body → drop off oxygen and nutrients, pick up waste products and become deoxygenated
1.4.5	**Cardiovascular measurements**
	The learner will understand the following cardiovascular measurements, including how they are measured (limited to maximal heart rate and cardiac output) and understand how they are relevant to health and fitness: • heart rate (HR) – measured by beats per minute (BPM) • maximum heart rate (MHR) = 220 minus age • stroke volume (SV) • cardiac output (CO)

	• the relationship between stroke volume, heart rate and cardiac output linked with cardiac output equation: ○ CO = SV x HR
1.4.6	**Blood pressure**

	The learner will understand the 2 different types of blood pressure, the ranges of blood pressure classification and factors that affect blood pressure:
	
	• systolic
	• diastolic
	• range of blood pressure classifications:
	  ○ the ideal range – between 90/60mmhg and 120/80mmhg
	  ○ elevated blood pressure – between 121/81mmhg and 139/89mmhg
	  ○ high blood pressure is more than 140/90mmhg
	  ○ low blood pressure is less than 90/60mmhg
	• factors that affect blood pressure:
	  ○ activity levels
	  ○ diet
	  ○ age
	  ○ stress

1.5	**Energy systems**

	The learner will understand the anaerobic and aerobic energy systems and how to apply these to health and fitness activities:
	
	• anaerobic energy system:
	  ○ non-oxygen dependent
	  ○ short duration activities – between 1 second and 60 seconds
	  ○ lactic acid is a by-product (anaerobic = glucose → energy + lactic acid)
	• aerobic energy system:
	  ○ oxygen dependent
	  ○ long duration activities – more than 1 minute
	  ○ carbon dioxide and water are by-products (aerobic = oxygen + glucose → energy + CO_2 + water)

2. Effects of health and fitness activities on the body

2.1	**Effects of health and fitness activities on the body**
2.1.1	**Short-term effects of health and fitness activities (during and/or up to 36 hours after)**
	The learner will understand the short-term effects that health and fitness activities can have on the body, how to link these to specific health and fitness activities and why each short-term effect occurs: • increased breathing rate/depth of breathing (tidal volume) – more oxygen is required, and more carbon dioxide must be expelled • increased heart rate and cardiac output/increased stroke volume – more blood is being provided to the muscles • increased blood pressure – the more forceful circulation of blood leads to a rise in systolic pressure and diastolic pressure • increased body temperature (leading to sweating) – heat is a by-product of energy being produced • decreased hydration levels – more fluid is lost than is taken in • muscle fatigue – insufficient oxygen to meet demand and an increase in lactic acid • delayed onset muscle soreness (DOMS) – damage to the muscle fibres due to them working at a high intensity • light-headedness – lack of hydration or sudden drop in blood pressure due to overexertion • nausea – blood flowing to the digestive tract and stomach being rerouted to fatigued muscles • tiredness – working hard for a prolonged period of time
2.1.2	**Long-term effects of health and fitness activities (over 36 hours and up to months after)**

	The learner will understand the long-term effects of health and fitness activities on the body, how to link these to specific health and fitness activities and why each long-term effect occurs:
	
	• improved cardiovascular endurance:
	  ○ regular exercise strengthens the heart muscle
	  ○ improves blood vessel health and increases amount of capillaries
	  ○ strengthens respiratory muscles
	• improved efficiency to use oxygen – increased lung capacity and stronger respiratory muscles
	• lower blood pressure – due to benefits from good cholesterol as a result of exercise
	• decreased resting heart rate – fewer beats of the heart are required to pump blood
	• cardiac hypertrophy – a stronger heart and a decrease in resting blood pressure
	• improved muscular endurance – due to training that has worked the muscles for a prolonged period of time
	• improved muscular strength:
	  ○ increased muscle mass due to working the muscles against a resistance
	  ○ increased tendon and ligament strength
	• improved resistance to fatigue – an increased capacity to use oxygen
	• muscle hypertrophy – increased muscle mass

	• increased volume of red blood cells – a greater capacity to transport oxygen
	• improved flexibility – adequate stretching
	• body shape change due to an increase in muscle mass and reduction in body fat:
	  ○ endomorph (higher body fat percentage than muscle, heavier, rounder):
	  ▪ occurs when an individual struggles to lose fat or build muscle
	  ○ ectomorph (little body fat, light muscle):
	  ▪ occurs when an individual struggles to gain fat or build muscle
	  ○ mesomorph (more muscle than fat):
	  ▪ occurs when an individual easily loses fat and builds muscle

3. Health and fitness and the components of fitness

3.1	**Understanding health and fitness**

	The learner will understand the terms 'health' and 'fitness' and the relationship between them:
	
	• health:
	  ○ a state of wellbeing:
	  ▪ physical
	  ▪ mental
	  ▪ social
	• fitness – an ability to meet the demands of an environment
	• relationship between health and fitness

3.2	**Components of fitness**
3.2.1	**Health-related fitness**

	The learner will understand the 5 components of health-related fitness, their definitions, how to link the components to health and fitness activities (inclusive of sporting activities) and the effect that improvements to the components has on performance in the activity:
	
	• body composition – certain body compositions provide advantages to different sports/activities
	• cardiovascular endurance – allows longer periods of exercise at higher intensity
	• flexibility – enhances range of motion and can prevent injury
	• muscular endurance – allows muscular performance for longer before fatigue
	• muscular strength:
	  ○ allows faster improvement and reduces risk of injury
	  ○ allows performer to exert a greater force against a resistance when competing:
	  ▪ static – the muscles contract and hold position
	  ▪ dynamic – the muscles contract and relax repeatedly
	  ▪ explosive – the muscles contract at a high speed

3.2.2	**Skill-related fitness**

	The learner will understand the 6 components of skill-related fitness, their definitions, how to link these components to health and fitness activities (inclusive of sporting activities) and the effect that improvements to the components has on performance in the activity:
	
	• agility:
	  ○ improves flexibility and balance during performance
	  ○ improves performer's speed at changing direction
	• balance – controls postural alignment and helps the body move more efficiently
	• co-ordination:
	  ○ contributes to more efficient movement
	  ○ improves the ability to move many body parts at once

	• power:
	  ○ acts as the foundation for dynamic movement and generates rapid force
	  ○ enables the performer to perform actions that require both strength and speed
	• reaction time – enables the performer to respond quickly to a stimulus
	• speed: enables the performer to move the body quickly

4. Principles of training

4.1	**Principles of training**
4.1.1	**Understanding the principles of training**
	The learner will understand the 5 principles of training (SPORT) and how they can be applied to meet the needs of individuals to optimise performance in health and fitness activities: • specificity • progression • overload • reversibility • tedium
4.1.2	**Principles of overload**
	The learner will understand the principles of overload (FITT) and how they can be applied to meet the needs of individuals to optimise performance in health and fitness activities: • frequency • intensity • time • type

5. Testing and developing components of fitness

5.1	Fitness testing
5.1.1	Health-related fitness tests

	The learner will understand the purpose and procedure of health-related fitness tests:
	
	• cardiovascular endurance:
	  ○ multi-stage fitness test (beep or pacer test):
	  ▪ purpose – to predict maximum rate of oxygen consumption during exercise against age-adjusted tables to show level of fitness
	  ▪ procedure:
	  • 20-metre shuttle runs between 2 fixed points
	  • shuttle runs performed in time with a beeping sound
	  • time between beeps is reduced until exhaustion is reached
	  ○ 12-minute Cooper run test:
	  ▪ purpose – to measure aerobic fitness and cardiovascular endurance
	  ▪ procedure:
	  • an individual runs as far as they can for a 12-minute period
	  • their distance covered is measured
	  • test results (volume oxygen (VO_2) max results) are calculated using formula VO_2max = (22.351 x kilometres) – 11.288
	  • test results are compared on a national scale
	  ○ Bruce protocol test:
	  ▪ purpose – to measure maximum rate of oxygen consumption during exercise of increasing intensity and measure aerobic and cardiovascular endurance
	  ▪ procedure – multiples of 3-minute stages on a treadmill, increasing gradient and speed on each stage
	• muscular strength – handgrip dynamometer:
	  ○ purpose – to measure the isometric strength of the hand and forearm muscles
	  ○ procedure – individual uses a dynamometer squeeze for at least 5 seconds, 3 separate times with each hand, recording the best score
	• muscular endurance:
	  ○ sit-up test:
	  ▪ purpose – to measure muscular endurance of the abdominal muscles
	  ▪ procedure:
	  • the individual lies on their back, knees bent, feet flat on the floor and arms crossed over the chest
	  • another person may hold their ankles
	  • the individual performs a sit-up by raising their upper body up to their knees then lowering back to the ground
	  • the individual repeats this as many times as possible for a 2-minute period
	  ○ maximum push test (upper body):
	  ▪ purpose – to set an upper body endurance baseline to measure improvement over a period of time

	▪ procedure: • adopting the prone position – arms shoulder-width apart • pushing up until the arms are locked • lowering the body back to the prone position • counting the number of fully achieved push-ups in 60 seconds ○ squat test: ▪ purpose – to set a lower body endurance baseline to measure improvement over a period of time ▪ procedure: • standing with feet apart, back to the wall, hips apart and knees flexed at 90-degree angle • lifting 1 foot 5cm off the ground for as long as possible • timing from the raising of the foot to it making contact with the ground • body composition: ○ body mass index (BMI): ▪ purpose – to measure if an individual is a healthy weight for their height ▪ procedure: • an individual's weight is measured • an individual's height is measured • the weight and height measurements are placed on a chart • the placement on the chart dictates whether the individual is under weight, normal weight, overweight or obese ○ skinfold callipers: ▪ purpose – to measure subcutaneous fat to predict the total amount of body fat using formulas ▪ procedure: • standing erect and relaxed • pinch the skin in the area to be measured • apply callipers approximately 1cm away from fingers and measure the vertical fold • flexibility – sit and reach test: ○ purpose – to measure the extensibility of the hamstring and lower back ○ procedure: ▪ sitting up straight on the floor with legs stretched out in front against a step ▪ placing a ruler on the step between the knees ▪ stretching forward from the waist with hands together ▪ noting the distance on the ruler of the point of the greatest stretch
5.1.2	**Skill-related fitness tests**
	The learner will understand the purpose and procedure of skill-related fitness tests: • agility – Illinois agility test: ○ purpose – to test sporting agility by testing the ability to turn in different directions at speed ○ procedure: ▪ the individual sprints to a set point ▪ the individual then sprints in and out of a series of cones ▪ the individual finishes off with a sprint between 2 fixed points

	• speed – 30-metre sprint test:
	  ○ purpose – to determine acceleration and speed
	  ○ procedure:
	  ▪ the individual performs a timed 30-metre sprint between 2 fixed points
	  ▪ the sprint is performed 3 times
	  ▪ an average time is taken
	• co-ordination – alternate hand wall toss test:
	  ○ purpose – to measure the hand-eye co-ordination of the individual
	  ○ procedure:
	  ▪ the individual stands 2 to 3 metres away from a wall
	  ▪ a ball is thrown underarm against the wall and caught with the opposite hand
	  ▪ the ball is then thrown against the wall again and caught with the original hand
	  ▪ the amount of consecutive catches in 30 seconds is measured
	• power – vertical jump test:
	  ○ purpose – to measure the individual's lower limb explosive power
	  ○ procedure:
	  ▪ the individual puts chalk on their fingertips
	  ▪ the individual then stands side-on to a wall with both feet flat on the ground
	  ▪ the individual then reaches up as high as possible and marks the wall with their chalked fingers
	  ▪ from a static position, they jump as high as possible and marks the wall with chalked fingers
	  ▪ the distance between both marks on the wall are measured
	• balance – stork stand test:
	  ○ purpose – to measure the progress of the individual's ability to maintain balance in a static position
	  ○ procedure:
	  ▪ the individual stands with their hands on their hips
	  ▪ they then place the sole of 1 foot against the inside of the knee of the standing foot
	  ▪ they then raise their heel off the floor and balance on the ball of their foot
	  ▪ this is timed from the moment the heel leaves the floor to the moment it returns to the floor
	• reaction time – ruler drop test:
	  ○ purpose – to measure reaction and response time
	  ○ procedure:
	  ▪ working with a partner, the individual holds out their hand with a gap between thumb and forefinger
	  ▪ the partner drops the ruler between the individual's fingers without warning
	  ▪ the individual catches the ruler between thumb and forefinger
	  ▪ the measurement on the ruler between thumb and forefinger is recorded
	  ▪ the test is repeated 5 times and an average measurement is taken

5.1.3	**Using data**
	The learner will understand how to collect, use and analyse fitness test data to evaluate levels of fitness: • normative data – used to find average measurements against which to measure an individual's data with a view to improvement • test and re-test – used to measure the consistency of a test over time

5.1.4	**Validity and reliability**
	The learner will understand the following terms and how they relate to fitness testing: • validity – the degree to which a test measures what it is supposed to measure • reliability – how consistent the method of measurement is
5.2	**Training methods**

	The learner will understand different training methods, how they may support different individual goals in a health and fitness programme and how to set up a basic training schedule for the following methods:
	
	• interval:
	  ○ maximises cardiovascular benefits
	  ○ strengthens the heart
	  ○ improves anaerobic fitness
	• circuit:
	  ○ targets strength building
	  ○ targets muscular endurance
	  ○ can be tailored to meet the different components of fitness
	• fartlek:
	  ○ improves speed
	  ○ maximises cardiovascular benefits
	• continuous:
	  ○ improves cardiovascular fitness
	  ○ improves aerobic and fitness
	• weight training and body weight:
	  ○ increases muscle mass and strength
	  ○ increases muscular endurance
	  ○ reduces body fat
	• plyometric:
	  ○ improves power
	  ○ increases speed
	  ○ increases strength
	• flexibility:
	  ○ improves range of motion
	  ○ improves posture
	  ○ improves muscle co-ordination
	  ○ reduces risk of injury

5.3	**Optimising a health and fitness programme**
5.3.1	**Heart rate training zones**
	The learner will understand heart rate training zones and how to apply them to support individual goals through a health and fitness programme: • maximum heart rate (MHR) equation – subtract age from 220 • aerobic fitness – between 60–80% of MHR • anaerobic fitness – between 80–100% of MHR

5.3.2	Repetitions and sets
	The learner will understand the range of repetition and sets and how to apply them to support individual goals through a health and fitness programme: • muscular strength – high weight–low rep • muscular endurance – low weight–high rep

6. Impact of lifestyle on health and fitness

6.1	**Lifestyle factors**
6.1.1	**Activity levels**
	The learner will understand the terms 'active lifestyle' and 'sedentary lifestyle', with reference to current physical activity guidelines stated by the NHS and how to classify specific health and fitness activities as either moderate or vigorous: • active lifestyle • sedentary lifestyle • moderate and vigorous activities for health and fitness
6.1.2	**Diet**

	The learner will understand how key nutrients relate to participation in health and fitness activities and what a balanced diet consists of:
	
	• key nutrients:
	  ○ fat
	  ○ carbohydrate
	  ○ protein
	  ○ vitamins
	  ○ minerals
	  ○ fibre
	  ○ water
	• balanced diet in relation to NHS guidelines:
	  ○ Eatwell Guide
	  ○ current recommended daily allowance (RDA)
	• hydration:
	  ○ importance of hydration
	  ○ effects of dehydration
	• energy expenditure – calories consumed versus calories burned

6.1.3	**Rest and recovery**
	The learner will understand the importance of rest and recovery for health and fitness: • sleep • cool-down • diet • static stretching • massages • ice baths • rehydration • intake of food • rest

6.1.4	Other factors

	The learner will understand how the following lifestyle factors can negatively affect health and fitness and how to link their effects to specific examples in sport:
	
	• drugs:
	  ○ performance enhancing:
	  ▪ joint pain
	  ▪ dehydration
	  ▪ muscle weakness/cramps
	  ▪ vision problems
	  ▪ high/low blood pressure
	  ○ recreational:
	  ▪ muscle wastage
	  ▪ cardiovascular problems
	  ▪ weight loss
	  ▪ loss of concentration
	• smoking:
	  ○ breathlessness
	  ○ reduced blood flow due to narrowing of arteries
	• alcohol:
	  ○ decreased co-ordination
	  ○ delayed reaction
	  ○ impaired balance
	  ○ increases dehydration
	• stress:
	  ○ anxious performance
	  ○ irritability
	  ○ fatigue

7. Applying health and fitness analysis and setting goals

7.1	**Health and fitness analysis and goal setting**
7.1.1	**Health and fitness analysis tools**

	The learner will understand health and fitness analysis tools, what information is collected, how to administer them and why they are used:
	
	• physical activity readiness questionnaire (PAR-Q):
	  ○ collects health and lifestyle information from individuals prior to an exercise programme
	  ○ used during the induction process of a new client to a gym
	• lifestyle questionnaire:
	  ○ collects information relating to an individual's lifestyle:
	  ▪ current levels of physical activity
	  ▪ alcohol consumption
	  ▪ smoking
	  ▪ stress
	  ▪ diet
	  ○ administered prior to a training plan
	  ○ establishes the need for certain lifestyle changes in order to reach fitness goals
	• food diary:
	  ○ collects information about an individual's food and drink consumption
	  ○ used throughout a training programme to monitor diet
	  ○ establishes the diet changes required to reach fitness goals and helps an individual track their diet

7.1.2	**Collecting, using, analysing and evaluating data**

	The learner will understand how to collect, use, analyse and evaluate data to suggest improvements:
	
	• collect:
	  ○ determine the information required
	  ○ identify most appropriate data collection method
	  ○ carry out data collection method
	• use – use data in line with data protection requirements
	• analyse:
	  ○ summarise the collected data
	  ○ interpret the findings using logical reasoning
	  ○ determine trends or patterns
	• evaluate:
	  ○ establish the result of findings
	  ○ identify improvements to the process

7.1.3	Goal setting

	The learner will understand the acronym SMART in relation to goal setting and how to apply the SMART principles to set health and fitness goals:
	
	• specific
	• measurable
	• achievable
	• realistic
	• time-bound:
	  ○ short-term (1 day–1 month)
	  ○ medium-term (1 month–6 months)
	  ○ long-term (6 months plus)

8. Structure of a health and fitness programme and how to prepare safely

8.1	**The structure of a health and fitness training programme**
8.1.1	**Components of a health and fitness programme**
	The learner will understand the information that should be included in a health and fitness programme: • an overview of the health and fitness programme, with reference to clients' goals and rest days • lifestyle analysis • PAR-Q • fitness test results • session plans
8.1.2	**Health and safety**
	The learner will understand health and safety considerations needed for a health and fitness programme both in relation to the planning and delivery: • facilities • equipment checks and set-up • client behaviour • levels of progress – ensuring intensity is not progressed too quickly, risking injury • appropriate clothing and footwear
8.1.3	**The session plan**
	The learner will understand the information that should be included in the session plan: • warm-up, main activity section and cool-down • training methods • activity type • time, repetitions, sets, weight, intensity levels and rest periods • heart rate training zone targets for the session • targeted muscles
8.1.4	**Warm-up/cool-down**

	The learner will understand the purpose, benefits and phases of a warm-up and cool-down and how these are applied to a health and fitness session/activity:
	
	• purpose/benefit of a warm-up:
	  ○ gradually increase heart rate
	  ○ mobilise joints
	  ○ increase blood flow to the muscles
	  ○ prepare muscles for health and fitness activities
	  ○ reduce the risk of injury
	  ○ aid mental preparation

	• phases of a warm-up:
	  ○ mobilisation
	  ○ pulse raiser
	  ○ stretches – dynamic
	  ○ practise movement
	• purpose/benefit of a cool-down:
	  ○ allow breathing rate to return to normal
	  ○ gradually decrease heart rate
	  ○ gradually reduce body temperature
	  ○ remove waste products from the muscles
	• phases of a cool-down:
	  ○ pulse lowering
	  ○ stretches – static
	• timescales

8.1.5	**Main activity section**

	The learner will understand the components of the main activity section and how the principles of training and the principles of FITT are applied to an activity session. The learner will also understand why different methods of training are included in an activity session and how they link to components of fitness:
	
	• health and fitness analysis
	• training methods to improve or meet a goal
	• principles of training:
	  ○ specificity:
	  ▪ training should be relevant and appropriate to the sport
	  ▪ a specific skill should be performed in order to improve at it
	  ▪ individual differences - training should be adjusted according to:
	  • age
	  • gender
	  • sex
	  • rate of progress
	  • development
	  • required reasonable adjustments
	  • pregnancy/maternity status
	  • gender reassignment
	  • religious requirements (training schedule adjustment to account for times of worship)
	  ○ progression – gradual increase in the weight/frequency/number of repetitions in strength training outcomes
	  ○ overload – the stressing of the body systems in order to cause physiological adaptations
	  ○ reversibility:
	  ▪ stopping training can lead to loss of muscular strength and aerobic capacity
	  ▪ can be used when athletes plateau – stopping, then training back up and progressing past the point of plateau
	  ○ tedium:
	  ▪ adapting training sessions by including different exercises or training methods
	  ▪ preventing stagnation

	• FITT:
	  ○ frequency:
	  ▪ how often exercise takes place
	  ▪ improving performance by increasing frequency
	  ○ intensity:
	  ▪ working at a higher percentage of maximum heart rate
	  ▪ gradually increased to avoid injury
	  ▪ working at a higher resistance when strength training
	  ○ time:
	  ▪ length of session
	  ○ type – variety of exercise type can:
	  ▪ help avoid injury
	  ▪ develop muscle groups
	  ▪ reduce boredom and maintain focus on activity

8.1.6	**Reviewing the activity session**
	The learner will understand the requirements for reviewing the activity session: • achievement of SMART targets • variation on lifestyle questionnaire answers throughout process • application of health and safety requirements • the effectiveness of plan • effectiveness of warm-up/cool-down • application of principles of training • application of FITT • were the aims/objectives achieved • strengths/weaknesses of the activity session • feedback from participants • improvements for future activity sessions
8.2	**Timescales and goal setting**

	The learner will understand how to plan a programme building on training sessions that is within a suitable timescale or over time against a specified goal or target:
	
	• understanding the individual's current health and readiness to participate (PAR-Q):
	  ○ health conditions and underlying health issues
	  ○ advising individual to seek medical advice if required
	  ○ adjusting training plan according to doctor's advice if required
	• knowing the individual's lifestyle choices – establishing any lifestyle choices that need to be addressed in order to achieve goals
	• carrying out a health and fitness assessment:
	  ○ establishing baseline health and fitness levels for comparison
	  ○ recording height, weight and establishing BMI
	  ○ body measurements to measure progress
	• discussing the needs and goals of the individual:
	  ○ achievability
	  ○ timeframes

	• establishing the individual's motivation and commitment to training:
	  ○ frequency of training
	  ○ motivational drives for achieving goals
	• developing the training plan, considering:
	  ○ principles of training
	  ○ principles of FITT
	  ○ components of fitness
	  ○ methods of training
	• scheduling regular health and fitness assessments:
	  ○ establishing progress against baseline
	  ○ measuring progress against normative data
	  ○ adjusting the training plan based on progress

Teaching guidance

In this section we provide some useful advice and guidance to support the delivery of the teaching content.

Website links are provided as sources of potentially useful information for delivery/learning of this subject area. NCFE does not explicitly endorse any learning resources available on these websites. For official NCFE-endorsed learning resources, please see the additional and teaching materials sections on the qualification page on the NCFE website.

1. Teaching guidance – structure and function of body systems
Health and fitness activities are any form of exercise, competitive or non-competitive, including sport. It is important learners are given the opportunity to gain knowledge and understanding about the skeletal system, muscular system, respiratory system, cardiovascular system and energy systems through a combination of class-based and practical learning. For example: • using sticky labels to identify the major bones on another learner or drawing on another learner if they are wearing a decorating suit • completing a fitness activity lesson with the aim of identifying the agonist and antagonist in a range of movements • using a plain white t-shirt to draw the respiratory system and then describing the structure and function of the parts of the respiratory system • using red bibs (oxygenated blood) and blue bibs (deoxygenated blood), the learner walks around the cardiovascular system created on the floor, and then completes a diagram in their books • watching video clips of a variety of health and fitness activities to identify which are aerobic and which are anaerobic For 1.1.5, learners could be given examples of types of movements and asked to match the movement to the sporting action. For example: • extension: in elbow joint when releasing the shot put • rotation: in spine when completing a golf swing, or discus throwing • adduction: lifting the body up towards the arms during a rings routine in gymnastics • plantarflexion: in ankle joints when taking off, during a high jump action or a tennis serve For 1.1.6, although learners will not be required to draw a synovial joint (knee) in the written exam, they must be able to understand the structure and functions of a synovial joint. The learners, in order to embed their knowledge, could carry out an assignment where they are required to: • draw the knee joint outlining all structural aspects • compare the knee joint to another synovial joint • describe in detail the 6 types of synovial joint and their functions

For 1.1.7, the learners will not be assessed on how many vertebrae are in each region, however, teaching this may help to embed their understanding of each region. To have a full appreciation of the structure and functions of the spine, learners should have knowledge of the 5 regions in terms of functionality. For example:

- cervical – provides mobility and stability of the head
- thoracic – holds rib cage and protects heart and lungs
- lumbar – bears the weight of the body
- sacrum – connects the spine to hip bones
- coccyx – formerly the tailbone, provides a connecting point for muscles and tendons

For 1.4.5, the learners will know the equation for cardiac output but will not be required to calculate it. In this equation, only the heart rate can be measured physically, with stroke volume only by means of specialist heart monitors.

A practical exercise to embed knowledge could be, for example: working in pairs, learners could practice taking each other's pulse, both wrist and neck. Learner 1 will record the resting heart rate of learner 2, who will then undertake a form of vigorous exercise for 5 minutes. On completion of the exercise, learner 1 will immediately take the pulse of learner 2 to record the active heart rate, allow 5 minutes' rest and retake their partner's heart rate to measure how fast the heart recovers. The recovery figures can be compared against normative data.

For 1.2.5, type 1 and type 2 muscle fibres are not mutually exclusive and both types of training should be factored into any training plan, depending upon the needs of the individual in terms of performance in their chosen sport. Learners could be given examples of muscle fibre types and be asked to describe the structure of the fibres and match each type of muscle fibre with a type of athlete likely to have this form of muscle fibre. For example:

- type 1 muscle fibre (slow twitch fibres) – fatigue resistant, high concentration of mitochondria and myoglobin, supports long-distance endurance activities such as:
  - long-distance running
  - cycling
  - swimming
- type 2 muscle fibre (fast twitch fibres) – fatigues quickly, lower levels of mitochondria and myoglobin, supports bigger and more powerful forces – shorter more explosive activities such as:
  - sprinting
  - jumping
  - weightlifting

A practical exercise for learners to determine the general fibre make-up of the individual could be in a gymnasium setting. Teachers could ask each learner to carry out a vertical jump. The height of the jump is less important than the action of the individual in preparing for their jump. Although the test does not lie, it is not conclusive, as medical tests would be needed for 100% accuracy. It is extremely important that the learner is not provided with any information as to why they are doing this exercise, as their actions in preparing to jump needs to be subconscious to provide a natural response to the movement.

- a slow twitch person will tend to dip very low and slowly into a squat position before transitioning into the vertical jump
- a fast twitch person will have a short and forceful dip and create more acceleration into the jump

1. Teaching guidance – structure and function of body systems
Resources: • Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com) **Useful websites:** • www.bbc.co.uk/bitesize • www.bhf.org.uk

2. Teaching guidance – effects of health and fitness activities on the body

It is important that learners are given the opportunity to gain knowledge and understanding about the short-term and long-term effects of health and fitness activities on the body through a combination of class-based and practical learning. For example:

- participating in a health and fitness activity and at various intervals identify the various short-term effects that the activity is having on the body systems
- comparing pictures of individuals before and after a fitness training programme to identify the long-term effects on the body

In order to embed their knowledge, learners could be given examples of health and fitness activities and be asked to provide the likely short and long-term effects each can have on the body. For example:

- cycling
- cycling (spinning)
- running
- walking
- swimming
- weight training
- yoga
- aerobic exercise class
- dance

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.bbc.co.uk/bitesize

3. Teaching guidance – health and fitness and the components of fitness

It is important that the learners are given the opportunity to gain knowledge and understanding about the terms 'health' and 'fitness', the relationship between them and the components of fitness through a combination of class-based and practical learning. For example:

- group research to identify the definitions of health and fitness
- watching a range of health and fitness activities, try and identify the 11 components of fitness and then categorise them as health-related or skill-related
- creating a set of Top Trumps using a variety of activities, to give each activity a score for each of the 11 components according to the relative importance of each component to that activity

For examples of appropriate sporting activities referenced in 3.2.1 and 3.2.2, refer to the Department for Education's GCSE Physical Education activity list.

For 3.2.2, the learners may be required to make reference to specific types of training in the written exam. To embed their classroom knowledge, learners could be asked to identify health and fitness activities which would help to improve the individual components of skill-related fitness. For example:

- agility – plyometric jumps, forward and lateral running
- balance – heel to toe tightrope style walking along a line
- co-ordination – yoga, basketball dribbling, juggling
- power – leg press, barbell curls, squat jump
- reaction time – interval drills
- speed – interval runs, single leg squats, ladder runs

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.toptrumps.com

4. Teaching guidance – principles of training

It is important that learners are given the opportunity to gain knowledge and understanding about the principles of training and the principles of FITT, through a combination of class-based and practical learning. For example:

- completing a teacher-led circuit a number of times, with each circuit being adapted, the learners will then try and identify what principles of training have been applied
- learners could prepare a circuit training session that encapsulates the 5 principles of training (this could be either a written or a practical-based exercise)

Learners could be asked to provide an explanation of each of the 5 principles. For example:

- specificity – developing technique, specific to chosen sport
- progression – progressing training according to individual needs
- overload – incremental increases to workload
- reversibility – reduction in effort will result in reduction in performance
- tedium – using a variety of training methods to prevent boredom, injury and stagnation

External visits/guest speakers

Approach local fitness trainers to discuss how they change FITT principles in different activities.

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.bbc.co.uk/bitesize

5. Teaching guidance – testing and developing components of fitness

It is important that learners are given the opportunity to gain knowledge and practical experience of testing and training methods for health and fitness through a combination of class-based and practical learning. It is important that learners know how to test different components of health-related and skill-related fitness and which tests are appropriate for different components. This could initially be done through watching videos of the tests being prepared and carried out, then giving learners the opportunity to practise each test. The learners could then make notes to support their learning.

Examples tests could be:

- health-related:
  - cardiovascular endurance – multi-stage fitness test, 12-minute Cooper run test
  - muscular strength – handgrip dynamometer
  - muscular endurance – 2-minute sit-up/push-up test
  - body composition – body mass index (BMI)
  - flexibility – sit and reach test
- skill-related:
  - agility – Illinois agility test
  - speed – 30-metre sprint test
  - co-ordination – alternate hand wall toss test
  - power – vertical jump test
  - balance – stork stand test
  - reaction time – ruler drop test

Teachers could set-up a circuit and apply different types of training to each circuit station. Learners could create crib cards for each of the different stations explaining what each type of training is, the key characteristics and what the training type could help develop. After each circuit, the learners could adapt the repetitions/sets/rest of exercise and rationalise why these changes have been made and how this has changed the FITT principles.

Learners should know that normative data (charts or tables), is usually collated by government sources, industry specialists or sports governing bodies, following analysis of a wide range of test results in particular areas of health and fitness. These tests are completed by a variety of individuals and compared in terms of age, gender and ethnicity.

Learners should know that test and re-test means to apply the same test to the same person at a different time or on another day to see if the scores are the same; if so, then external reliability is established. Test and re-test can help to measure both validity and reliability.

Learners could be asked to carry out basic fitness tests on each other, applying the test and re-test principle and, having recorded the results, analyse the data and compare results with normative data available for those areas tested.

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.bbc.co.uk/bitesize/guides/zyqd2p3/revision/2

6. Teaching guidance – impact of lifestyle on health and fitness

It is important that learners are given the opportunity to gain knowledge and understanding about lifestyle factors through a combination of class-based and practical learning. For example:

- learners could use independent learning on iPads/smartphones to research and discuss what active and sedentary lifestyles are and why they are classified
- the teacher could hold up examples of food/pictures of food and as a group the learners could discuss and label which key nutrient the food comes from
- teachers could ask learners to draw the Eatwell Guide showing the various percentages for each section, this could then be compared to the actual Eatwell Guide to see how close they came
- learners could weigh out how much food they think is in a recommended portion and then weigh out the actual recommended portion and compare the differences; they could also discuss how this portion size may change based on different factors or goals

External visits/guest speakers

Learners may benefit from listening to local performance coaches/event participants discussing how diets are changed when they are working towards specific goals.

Learners could be asked to outline why each of the aspects listed in 6.1.3 are important in relation to health and fitness. For example:

- sleep – enables the body to repair and be fit for the next day
- cool-down – enables gradual recovery of heart rate and blood pressure
- ice baths – reduces body temperature, inflammation in tissue of muscles
- rehydration – water regulates the body temperature and lubricates joints
- static stretching – enables muscles to recover, less pain and stiffness
- massages – calms the nervous system and improves blood circulation
- rest – allows the muscles to recover and grow

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.nhs.uk/live-well/
- www.food.gov.uk/
- www.bhf.org.uk/
- www.nhs.uk/Livewell/Goodfood/Pages/the-eatwell-guide.aspx

7. Teaching guidance – applying health and fitness analysis and setting goals

It is important that learners are given the opportunity to gain knowledge and practical experience of lifestyle analysis through a combination of class-based and practical learning. For example:

- learners could research different lifestyle analysis tools, including PAR-Qs, lifestyle questionnaires and food diaries, to see what each 1 contains, what professions may use it for and why they are important, then learners could apply them to 1 of their peers and undertake a full lifestyle consultation
- learners should know about what each section of SMART means and this could be done as independent research or as a class-led activity in which they could try and set a SMART goal for themselves and 1 of their peers and evaluate if each goal meets the requirements of SMART

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.active.com/fitness/articles/how-to-set-s-m-a-r-t-goals

8. Teaching guidance – structure of a health and fitness programme and how to prepare safely

It is important that learners are given the opportunity to gain knowledge and practical experience of warm-ups, cool-downs and the main activities within a health and fitness programme in a safe manner through a combination of class-based and practical learning.

Learners could research how and why we complete a warm-up and cool-down. Learners could select and perform appropriate warm-up activities and record the short-term effects they have on the body.

Learners could put together a session plan to put into action.

Learners could participate in a range of activities and different types of training that could be used within a health and fitness programme. Learners could then suggest which activity best suits improvements in specific components of health and skill-related fitness. For example:

- cardiovascular endurance – continuous training, fartlek training, circuit training
- muscular strength – weight training, circuit training, isometric exercise, yoga
- muscular endurance – body weight squats, sit-ups, push-ups, walking lunges
- flexibility – static stretching, dynamic stretching, passive stretching
- body composition – burpees, push-ups, interval training, body weight squats

The learners could suggest how these approaches could be adapted using the FITT principles and perform them.

Resources:

- Hachette Learning Health and Fitness Textbook (available from www.hachettelearning.com)

Useful websites:

- www.nhs.uk

Synoptic connections

Synoptic assessment requires learners to combine elements of their learning and show accumulated knowledge and understanding across the qualification content. It enables learners to evidence their capability to integrate and apply knowledge, understanding and skills gained with breadth and depth in context.

It is therefore essential when planning for teaching and throughout delivery that the interdependencies and links build across the content of the qualification and are highlighted and reinforced.

The qualification comprises 8 content areas. All content areas are mandatory and must be taught.

The teaching content does not have to be delivered in a linear way; the content areas are interdependent in knowledge, skills and concepts.

Teachers may take a synoptic approach across the qualification. This will enable learners to be able to apply theories and concepts from across the qualification specification in context to skills-based situations. Through combining content and developing holistic connections, learners will be able to demonstrate and evidence their full knowledge and understanding of the subject area and health and fitness sector.

Learners will have the opportunity to identify relevant study skills and reflect upon their preferred learning style throughout the qualification.

NCFE assessment strategy

Knowledge LOs:

- assessors will need to be both occupationally knowledgeable and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Competence/skills LOs:

- assessors will need to be both occupationally competent and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Section 3: additional information

School accountability measures (performance points)

This technical award has been developed to meet the criteria set by the Department for Education (DfE) to be included in the key stage 4 performance tables. Each grade has been assigned a points value. Please check the Register of Regulated Qualifications website (register.ofqual.gov.uk) for further information.

Discounting

If a learner is taking a GCSE and a technical award in the same year with the same discount code, such as a GCSE in Physical Education and a Level 1/2 Technical Award in Health and Fitness, the first entry will count. For more information about discounting and discount codes, please refer to the performance tables guide on the NCFE website.

Discount codes for technical awards can be found on the NCFE website. We advise centres to refer to the discounting and early entry guidance document provided by the DfE. For more information on discounting, please contact the DfE directly.

Qualification dates

Regulated qualifications have operational end dates and certification end dates.

We review qualifications regularly, working with sector representatives, vocational experts and stakeholders to make any changes necessary to meet sector needs and to reflect recent developments.

If a decision is made to withdraw a qualification, we will set an operational end date and provide reasonable notice to our centres. We will also take all reasonable steps to protect the interest of learners.

An operational end date will only show on the Ofqual Register of Regulated Qualifications (register.ofqual.gov.uk) if a decision has been made to withdraw a qualification. After this date we can no longer accept learner registrations. However, certification is allowed until the certification end date so that learners have time to complete any programmes of study. The certification end date will only show on the Ofqual Register once an operational end date has been set. After this date we can no longer process certification claims.

Where a qualification has an external assessment, this can only be taken up to the last assessment date set by us. No external assessments will be permitted after this date so learners will need to be entered in sufficient time.

Support materials

The following support materials are available to assist with the delivery of this qualification and are available on the NCFE website:

- resource packs containing:
  - schemes of work
  - PowerPoint presentations
  - learner workbooks
- qualification factsheet

Other support materials

The resources and materials used in the delivery of this qualification must be age-appropriate and due consideration should be given to the wellbeing and safeguarding of learners in line with your centre's safeguarding policy when developing or selecting delivery materials.

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