

VTCT Level 2 Certificate in Fitness Instructing - Exercise and Physical Activity for Children

Accreditation start date: **1 April 2010**
Credit value: **23**
Total Qualification Time (TQT): **230**
Guided learning hours (GLH): **157**
Qualification number: **500/8722/8**

Statement of unit achievement

By signing this statement of unit achievement you are confirming that all learning outcomes, assessment criteria and range statements have been achieved under specified conditions and that the evidence gathered is authentic.

This statement of unit achievement table must be completed prior to claiming certification.

Unit code	Date achieved	Learner signature	Assessor initials	IQA signature (if sampled)
Mandatory units				
UV20524				
UV20522				
UV20525				
UV20523				
UV20532				
UV20533				

The qualification

Introduction

The VTCT Level 2 Certificate in Fitness Instructing - Exercise and Physical Activity for Children will prepare you for a career in the sport and active leisure industry as a fitness instructor delivering health related exercise and physical activity sessions to children.

Throughout this qualification you will develop an understanding of the principles of exercise and health, anatomy and physiology and health, safety and welfare in the fitness environment.

You will develop the knowledge and skills needed to plan, instruct and review exercise and physical activity sessions for children.

On successful completion of this qualification you will be able to gain employment as a fitness instructor providing exercise and physical activity sessions/programmes to children.

National Occupational Standards (NOS)

Units in this qualification have been mapped to the relevant NOS (where applicable). This qualification is regulated on the Regulated Qualifications Framework.

This qualification is approved and supported by SkillsActive, the sector skills council for active leisure and learning.

Prerequisites

Learners who wish to undertake this qualification must also achieve the VTCT (ITEC) Level 2 Award in Infection Prevention (COVID-19) for Sport and Fitness Sessions qualification or a regulated equivalent.



Progression

Once you have successfully completed this qualification you will be able to progress to the following VTCT qualifications:

- Level 2 Certificate in Fitness Instructing - Gym-Based Exercise
- Level 2 Certificate in Fitness Instructing - Exercise to Music
- Level 2 Certificate in Fitness Instructing - Water-Based Exercise

Qualification structure

Total credits required - 23

All mandatory units must be completed.

Mandatory units - 23 credits

VTCT unit code	Ofqual unit reference	Unit title	Credit value	GLH
UV20524	T/600/9016	Health, safety and welfare in a fitness environment	2	16
UV20522	H/600/9013	Anatomy and physiology for exercise	6	41
UV20525	A/600/9017	Principles of exercise, fitness and health	4	28
UV20523	M/600/9015	Know how to support clients who take part in exercise and physical activity	2	13
UV20532	A/600/9048	Planning health related exercise and physical activity for children	3	23
UV20533	T/600/9050	Instructing health related exercise and physical activity to children	6	36

Guidance on assessment

This book contains the mandatory units that make up this qualification. Optional units will be provided in additional booklets (if applicable). Where indicated, VTCT will provide assessment materials. Assessments may be internal or external. The method of assessment is indicated in each unit.

Internal assessment

(any requirements will be shown in the unit)

Assessment is set, marked and internally quality assured by the centre to clearly demonstrate achievement of the learning outcomes. Assessment is sampled by VTCT external quality assurers.

External assessment

(any requirements will be shown in the unit)

Externally assessed question papers completed electronically will be set and marked by VTCT.

Externally assessed hard-copy question papers will be set by VTCT, marked by centre staff and sampled by VTCT external quality assurers.

Assessment explained

VTCT qualifications are assessed and quality assured by centre staff. Work will be set to improve your practical skills, knowledge and understanding. For practical elements, you will be observed by your assessor. All your work must be collected in a portfolio of evidence and cross-referenced to requirements listed in this record of assessment book.

Your centre will have an internal quality assurer whose role is to check that your assessment and evidence is valid and reliable and meets VTCT and regulatory requirements.

An external quality assurer, appointed by VTCT, will visit your centre to sample and quality-check assessments, the internal quality assurance process and the evidence gathered. You may be asked to attend on a different day from usual if requested by the external quality assurer.

This record of assessment book is your property and must be in your possession when you are being assessed or quality assured. It must be kept safe. In some cases your centre will be required to keep it in a secure place. You and your course assessor will together complete this book to show achievement of all learning outcomes, assessment criteria and ranges.



Creating a portfolio of evidence

As part of this qualification you are required to produce a portfolio of evidence. A portfolio will confirm the knowledge, understanding and skills that you have learnt. It may be in electronic or paper format.

Your assessor will provide guidance on how to prepare the portfolio of evidence and how to show practical achievement, and understanding of the knowledge required to successfully complete this qualification. It is this booklet along with the portfolio of evidence that will serve as the prime source of evidence for this qualification.

Evidence in the portfolio may take the following forms:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

All evidence should be documented in the portfolio and cross referenced to unit outcomes. Constructing the portfolio of evidence should not be left to the end of the course.

Unit assessment methods

This section provides an overview of the assessment methods that make up each unit in this qualification. Detailed information on assessment is provided in each unit.

Mandatory units				
		External	Internal	
VTCT unit code	Unit title	Question paper(s)	Observation(s)	Assignment(s)
UV20524	Health, safety and welfare in a fitness environment	0	✗	✓
UV20522	Anatomy and physiology for exercise	1	✗	✓
UV20525	Principles of exercise, fitness and health	1	✗	✓
UV20523	Know how to support clients who take part in exercise and physical activity	0	✗	✓
UV20532	Planning health related exercise and physical activity for children	0	✓	✓
UV20533	Instructing health related exercise and physical activity to children	0	✓	✓

Unit glossary

	Description
VTCT product code	All units are allocated a unique VTCT product code for identification purposes. This code should be quoted in all queries and correspondence to VTCT.
Unit title	The title clearly indicates the focus of the unit.
National Occupational Standards (NOS)	NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised level of competence.
Level	Level is an indication of the demand of the learning experience, the depth and/or complexity of achievement and independence in achieving the learning outcomes.
Credit value	This is the number of credits awarded upon successful achievement of all unit outcomes. Credit is a numerical value that represents a means of recognising, measuring, valuing and comparing achievement.
Guiding Learning hours (GLH)	The activity of a learner in being taught or instructed by - or otherwise participating in education or training under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
Total qualification time (TQT)	The number of hours an awarding organisation has assigned to a qualification for Guided Learning and an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study, or any other form of participation in education or training. This includes assessment, which takes place as directed - but, unlike Guided Learning, not under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
Observations	This indicates the minimum number of observations required to achieve the unit.
Learning outcomes	The learning outcomes are the most important component of the unit, they set out what is expected in terms of knowing, understanding and practical ability as a result of the learning process. Learning outcomes are the results of learning.
Evidence requirements	This section provides guidelines on how evidence must be gathered.
Observation outcome	An observation outcome details the practical tasks that must be completed to achieve the unit.
Knowledge outcome	A knowledge outcome details the theoretical requirements of a unit that must be evidenced through oral questioning, a mandatory written question paper or portfolio of evidence.
Assessment criteria	Assessment criteria set out what is required, in terms of achievement, to meet a learning outcome. The assessment criteria and learning outcomes are the components that inform the learning and assessment that should take place. Assessment criteria define the standard expected to meet learning outcomes.
Range	The range indicates what must be covered. Ranges must be practically demonstrated in parallel to the unit's observation outcomes.

UV20524

Health, safety and welfare in a fitness environment

It is the aim of this unit to develop your knowledge and understanding of how to maintain health, safety and welfare in a fitness environment, including the safeguarding of children and vulnerable adults.

Level

2

Credit value

2

GLH

16

Observation(s)

0

External paper(s)

0



Health, safety and welfare in a fitness environment

Learning outcomes

On completion of this unit you will:

1. Understand emergency procedures in a fitness environment
2. Understand health and safety requirements in a fitness environment
3. Understand how to control risks in a fitness environment
4. Understand how to safeguard children and vulnerable adults

Evidence requirements

1. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *External paper*
There is no external paper requirement for this unit.

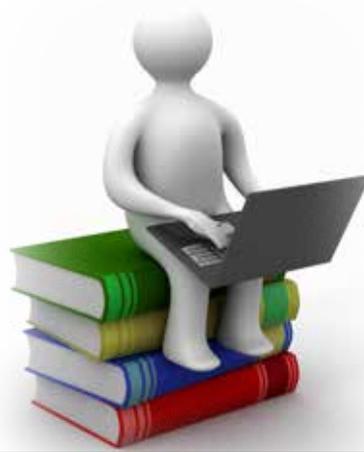
Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

Knowledge



Outcome 1

Understand emergency procedures in a fitness environment

You can:	Portfolio reference / Assessor initials*
a. Identify the types of emergencies that may occur in a fitness environment	
b. Describe the roles that different staff and external services play during an emergency	
c. Explain the importance of following emergency procedures calmly and correctly	
d. Describe how to maintain the safety of people involved in typical emergencies, including children, older people and disabled people	

**Assessor initials to be inserted if orally questioned.*



Outcome 2

Understand health and safety requirements in a fitness environment

You can:	Portfolio reference / Assessor initials*
a. Outline why health and safety is important in a fitness environment	
b. Identify the legal and regulatory requirements for health and safety relevant to working in a fitness environment	
c. Describe the 'duty of care' and professional role boundaries in relation to special population groups	
d. Identify the typical roles of individuals responsible for health and safety in a fitness organisation	
e. Describe the types of security procedures that may apply in a fitness environment	
f. Describe the key health and safety documents that are relevant in a fitness environment	

*Assessor initials to be inserted if orally questioned.



Outcome 3

Understand how to control risks in a fitness environment

You can:	Portfolio reference / Assessor initials*
<p>a. Identify possible hazards in a fitness environment, relating to:</p> <ul style="list-style-type: none"> • facilities • equipment • working practices, including lifting and handling of equipment • client behaviour • security • hygiene 	
<p>b. Describe how to risk assess the types of possible hazards in a fitness environment</p>	
<p>c. Describe how to control risks associated with hazards in a fitness environment</p>	
<p>d. Identify the appropriate person/position to contact within a fitness organisation when hazards and risks cannot be controlled personally</p>	

*Assessor initials to be inserted if orally questioned.



Outcome 4

Understand how to safeguard children and vulnerable adults

You can:	Portfolio reference / Assessor initials*
a. Describe what is meant by safeguarding the welfare of children and vulnerable adults	
b. Describe the responsibilities and limitations of a fitness instructor in regard to safeguarding children and vulnerable adults	
c. Identify the types of abuse which an instructor may encounter (physical, emotional, neglect, bullying and sexual)	
d. Identify possible signs of abuse (physical, emotional, neglect, bullying and sexual)	
e. Describe a fitness organisation's policies and procedures in relation to safeguarding children and vulnerable adults, including typical reporting procedures	
f. Describe the procedures to follow to protect yourself from accusations of abuse	
g. Identify the statutory agencies responsible for safeguarding children and vulnerable adults	
h. Explain when it may be necessary to contact statutory agencies	
i. Describe how to maintain the confidentiality of information relating to possible abuse	

*Assessor initials to be inserted if orally questioned.

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Understand emergency procedures in a fitness environment

Types of emergencies: First aid (accidental injury, medical conditions), accident (using equipment, trips, slips, falls), fire (building, equipment, flammable products), missing person (child, disabled person, vulnerable adults), suspected bomb, chemicals.

Roles of staff and external services: Instructor (deal with situation when it arises within limits of own responsibility, refer situation if necessary, report emergency), receptionist (contact emergency services, meet and direct emergency services to location), instructor or line/duty manager (complete incident/report form according to organisation requirements), paramedic (treat medical emergency), Police (investigate missing person), Fire Service (investigate, resolve and make safe fire emergency).

Importance of following emergency procedures: To ensure the emergency is resolved, the health and safety of all clients and staff, staff responsibilities are clearly allocated and followed, the emergency is reported and recorded.

Maintaining the safety of people involved: Stop the fitness activity, provide information to keep people informed, direct to a safe environment (other area, first aid room, fire assembly point), contact appropriate personnel (line manager, emergency services, parent or guardian, significant others), consider needs of specific populations (disabilities, older adult, children), ensure appropriate procedures are in place.



Outcome 2: Understand health and safety requirements in a fitness environment

Importance of health and safety: Protect clients and staff, ensure provision of safe and effective equipment, ensure safe and hygienic premises, to meet health and safety requirements and industry standards.

Legal and regulatory requirements: Health and safety legislation, disability discrimination legislation, Law of Tort, occupiers' liability, employee and public liability insurance, control of substances hazardous to health, CRB checks.

Duty of care and professional role boundaries: Duty of care (ensure no unreasonable harm or loss, three criteria for negligence), greater duty of care with vulnerable adults (over 18 years and in need of community care services, mental or other disability, unable to care for self, potential for exploitation), greater duty of care with clients undergoing special physiological lifespan processes (ageing, childhood, antenatal, postnatal).

Professional role boundaries for special populations: Unable to practise or advertise as a special populations instructor, unable to instruct special population clients on one to one or group basis, unable to plan a progressive and long term special population activity programme, health screened and asymptomatic special populations may be accommodated on an occasional basis within mainstream exercise sessions, clients must be informed of instructor role boundaries and given the choice to participate, instructors should obtain relevant qualifications if regularly working with special population clients, insurance policies must cover the instruction of special populations, other referral

sources for maintaining professional role boundaries (Code of Ethics, general practitioner, physiotherapist, first aider, line manager).

Roles of individuals in health and safety: Role of instructor (equipment and facility checks, service and maintenance, completing and recording specific activity risk assessments, maintaining safe practice during exercise services), role of managers (monitor health and safety practice, review risk assessments, review organisational health and safety policy, update staff on health and safety policy), health and safety executive (inspection and review of organisation's health and safety procedures and practice).

Types of security procedures: Controlled and recorded reception access/departure, CCTV coverage of public areas, entrances and exits, lockable storage for personal valuables, locked storage of maintenance and cleaning products, locked doors to areas with restricted public access, locked storage of client data records, opening and closing procedures, fire and evacuation procedures, fire alarm testing.

Key health and safety documents: Organisation health and safety policy, risk assessment, accident/incident report form, first aid book, equipment and facility maintenance and service records.



Outcome 3: Understand how to control risks in a fitness environment

Possible hazards: Facilities (e.g. slippery or uneven floor surfaces, obstructed floor areas, fire), equipment (e.g. broken, improper technical use), working practices (e.g. inappropriate exercise type and intensity, improper exercise technique, lifting, handling), client behaviour (e.g. abuse), security (e.g. medical condition, unauthorised persons, theft), hygiene (e.g. cross-infection, contact with hazardous cleaning and maintenance products), anything that may cause harm.

Risk assessment: Visual inspection and appraisal of possible hazards, identification of who may be harmed, written completion of risk assessment form (hazards, harm potential, people affected, risk severity, risk frequency, risk rating, additional control measures), review of risks.

Risk control: Facilities (e.g. cleaning and maintenance schedule, appropriate activities, sufficient floor area, suitable client footwear, location of fire exits, location of fire extinguishers, serviced fire extinguishers, storage of flammable products, organisational procedure for fire emergency), equipment (e.g. service and maintenance schedule undertaken and recorded, out of order equipment clearly marked, correct technical instruction), working practices (e.g. correct technical instruction, appropriate exercise type and intensity, correct lifting and handling technique), client behaviour (e.g. rules and standards information), security (e.g. qualified first aider, replenished first aid kit, location of nearest first aid kit, organisational procedure for medical emergency, controlled reception access), hygiene (e.g. regular cleaning schedule, clothing guidelines for clients, client hygiene information).

Appropriate personnel: Referral of hazards outside the limits of personal responsibility (line manager, organisation health and safety manager, external services, health and safety executive).



Outcome 4: Understand how to safeguard children and vulnerable adults

Safeguarding welfare: Children and vulnerable adults, protecting from maltreatment, preventing impairment of health and development, ensuring provision of safe and effective care, ensuring optimum life chances, acts that affect those working with children and vulnerable adults (the children act, the police act, the protection of children act, every child matters act, safeguarding vulnerable groups act, the disability discrimination act), protect yourself with CRB check.

Responsibilities and limitations: Responsibility of fitness instructor (duty of care to safeguard children and adults during provision of service, refer suspected and reported abuse to the designated employee), limitations (refer but not deal with suspected or reported abuse).

Types of abuse: Physical (e.g. hitting, shaking, throwing, poisoning, burning, drowning, suffocating, causing physical harm, forcing training and competition exceeding the capacity of the body, giving drugs to enhance performance or delay puberty), emotional (e.g. constant criticism, name calling, sarcasm, bullying, under constant pressure to perform to unrealistically high standards), neglect (e.g. not ensuring safety, exposure to undue cold or heat, exposure to unnecessary risk of injury), bullying (e.g. name calling, insults, verbal abuse, being deliberately embarrassed and humiliated by others, being made to feel different, being lied about, being physically assaulted or threatened with violence, being ignored), sexual (e.g. forcing or enticing a person to take part in sexual activities, involving people in looking at, or in the production of, sexual online images, watching sexual

activities, or encouraging people to behave in sexually inappropriate ways).

Possible signs of abuse: Physical (e.g. unexplained recurrent injuries or burns, probable excuses or refusal to explain injuries, wearing clothes to cover injuries, refusal to undress for exercise, bald patches, chronic running away, fear of medical help or examination, self destructive tendencies, aggression towards others, fear of physical contact), emotional (e.g. physical, mental and emotional development lags, sudden speech disorders, continual self depreciation, overreaction to mistakes, extreme fear of any new situation, inappropriate response to pain, neurotic behaviour, extremes of passivity or aggression), neglect (e.g. constant hunger, poor personal hygiene, constant tiredness, poor state of clothing, untreated medical problems, no social relationships, destructive tendencies), bullying (e.g. become withdrawn, start stammering, lack confidence, become distressed and anxious, stop eating, attempt or threaten suicide, have their possessions go missing, refuse to talk about problems, have unexplained bruises and cuts, begin to bully others, become aggressive and unreasonable), sexual (e.g. distracted, sudden mood swings, exhibit or mimic sexual behaviours, poor self body image, resist changing clothes, wetting and soiling accidents, self injury).

Policies, procedures and reporting procedures: For a specific fitness organisation (safeguarding children, safeguarding vulnerable adults, protection from accusations of abuse).

Statutory agencies: Social Services, Police, National Society for the Prevention



of Cruelty to Children (NSPCC), Ofsted, Independent Safeguarding Authority (ISA), associated roles and responsibilities, when to contact statutory agencies (when abuse is suspected, when abuse has been reported).

Maintaining confidentiality: Follow organisational procedures, refer to designated member of staff, use a safe and private place to discuss the issue, record and store details according to the data protection act.

Notes

Use this area for notes and diagrams



UV20522

Anatomy and physiology for exercise

It is the aim of this unit to develop your knowledge and understanding of the anatomy and physiology relating to exercise programming for apparently healthy adults of all ages.

Level

2

Credit value

6

GLH

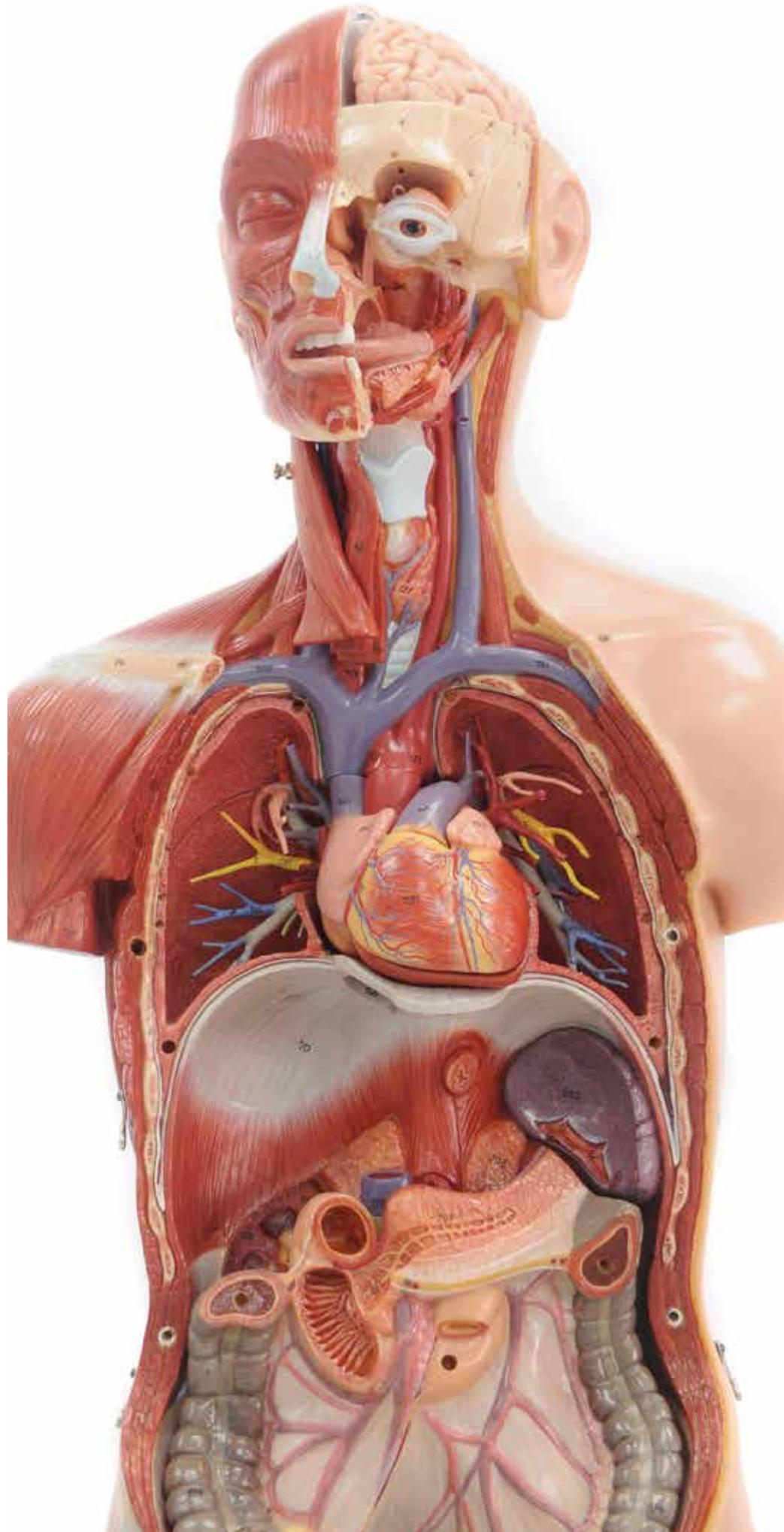
41

Observation(s)

0

External paper(s)

1



Anatomy and physiology for exercise

Learning outcomes

On completion of this unit you will:

1. Understand the structure and function of the circulatory system
2. Understand the structure and function of the respiratory system
3. Understand the structure and function of the skeleton
4. Understand joints in the skeleton
5. Understand the muscular system
6. Understand the life course of the musculoskeletal system and its implications for special populations exercise
7. Understand energy systems and their relation to exercise
8. Understand the nervous system and its relation to exercise

Evidence requirements

1. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *External paper*
Knowledge and understanding in this unit will be assessed by an external paper.
There is one external paper that must be achieved.

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

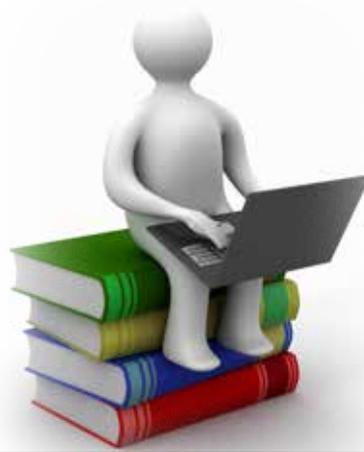
Achieving the external paper

The external paper will test your knowledge of all criteria in this section. **A pass mark of 70% must be achieved.**

Your assessor will complete this table when the 70% pass mark has been achieved.

Paper	Date achieved	Assessor initials
1 of 1		

Knowledge



Outcome 1

Understand the structure and function of the circulatory system

You can:	Portfolio reference / Assessor initials*
a. Identify the location of the heart	
b. Describe the function of the heart	
c. Describe the structure of the heart	
d. Describe how blood moves through the four chambers of the heart	
e. Describe systemic and pulmonary circulation	
f. Describe the structure and functions of blood vessels	
g. Define blood pressure	
h. Identify blood pressure classifications	

*Assessor initials to be inserted if orally questioned.



Outcome 2

Understand the structure and function of the respiratory system

You can:	Portfolio reference / Assessor initials*
a. Identify the location of the lungs	
b. Describe the function of the lungs	
c. Describe the structure of the lungs	
d. Identify the main muscles involved in breathing	
e. Describe the passage of air through the respiratory tract	
f. Describe the process of gaseous exchange of oxygen and carbon dioxide in the lungs	

*Assessor initials to be inserted if orally questioned.



Outcome 3

Understand the structure and function of the skeleton

You can:	Portfolio reference / Assessor initials*
a. Describe the basic functions of the skeleton	
b. Identify the structures of the axial skeleton	
c. Identify the structures of the appendicular skeleton	
d. Explain the classification of bones	
e. Explain the structure of long bones	
f. Explain the stages of bone growth	
g. Describe posture in terms of: <ul style="list-style-type: none"> • Curves of the spine • Neutral spine alignment • Potential ranges of motion of the spine • Postural deviations to include kyphosis, lordosis, scoliosis and the effect of pregnancy 	

*Assessor initials to be inserted if orally questioned.



Outcome 4

Understand joints in the skeleton

You can:	Portfolio reference / Assessor initials*
a. Describe the classification of joints	
b. Describe the structure of synovial joints	
c. Describe the types of synovial joints and their range of motion	
d. Describe joint movement potential and joint actions	

**Assessor initials to be inserted if orally questioned.*



Outcome 5

Understand the muscular system

You can:	Portfolio reference / Assessor initials*
a. Identify the three types of muscle tissue	
b. Define the characteristics and functions of the three types of muscle tissue	
c. Describe the basic structure of skeletal muscle	
d. Name and locate the anterior skeletal muscles	
e. Name and locate the posterior skeletal muscles	
f. Describe the structure and function of the pelvic floor muscles	
g. Describe the different types of muscle action	
h. Identify the joint actions brought about by specific muscle group contractions	
i. Identify skeletal muscle fibre types and their characteristics	

*Assessor initials to be inserted if orally questioned.



Outcome 6

Understand the life course of the musculoskeletal system and its implications for special populations exercise

You can:

Portfolio reference /
Assessor initials*

a. Describe the life course of the musculoskeletal system, including relevant tendon, ligament, muscle, joint and bone mineral density changes, and their implications for exercise, plus specific implications for working with:

- Young people in the 14-16 age range
- Antenatal and postnatal women
- Older people (50+)

**Assessor initials to be inserted if orally questioned.*



Outcome 7

Understand energy systems and their relation to exercise

You can:	Portfolio reference / Assessor initials*
a. Describe how carbohydrates, fats and proteins are used in the production of energy/adenosine triphosphate	
b. Explain the use of the three energy systems during aerobic and anaerobic exercise	

**Assessor initials to be inserted if orally questioned.*



Outcome 8

Understand the nervous system and its relation to exercise

You can:	Portfolio reference / Assessor initials*
a. Describe the role and functions of the nervous system	
b. Describe the principles of muscle contraction	
c. Describe the 'all or none law'/motor unit recruitment	
d. Describe how exercise can enhance neuromuscular connections and improve motor fitness	

*Assessor initials to be inserted if orally questioned.

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Understand the structure and function of the circulatory system

Location of the heart: Located centrally in the chest, mediastinum, thorax, between lungs, apex towards left hip.

Function and structure of the heart: Function of heart (circulation of blood, receiving and pumping blood to body and lungs), structure of heart (myocardium, septum, atria, ventricles, atrio-ventricular valves, semi-lunar valves, aorta, superior vena cava, inferior vena cava, pulmonary veins, pulmonary arteries).

Blood flow through heart chambers: Pulmonary circulation, deoxygenated blood, vena cava, right atrium, tricuspid valve, right ventricle, semi-lunar valve, pulmonary artery, lungs, gaseous exchange, oxygenated blood, pulmonary vein, left atrium, bicuspid valve, left ventricle, semi-lunar valve, aorta, systemic circulation, functional considerations (e.g. stroke volume, cardiac output).

Systemic and pulmonary circulation: Systemic (oxygenated blood from lungs, pulmonary vein, left atrium, left ventricle, aorta, arteries, arterioles, capillaries, muscles and organs), pulmonary (deoxygenated blood from muscles and organs, capillaries, venules, veins, vena cava, right atrium, right ventricle, deoxygenated blood to the lungs for oxygenation).

Structure and function of blood vessels: Arteries (tunica interna, tunica media, tunica externa), arterioles, capillaries, veins (tunica interna, tunica media, tunica externa, one way valves), venules,

comparison between blood vessels (wall thickness, internal diameter, direction of blood flow, pressure, presence of valves), functions of blood vessels (transport blood, blood flow distribution by vasoconstriction and vasodilation), function of arteries and arterioles (transport oxygenated blood to muscles and organs), functions of veins and venules (transport deoxygenated blood back to the heart, venous return), functions of capillaries (exchange of gases and nutrients between blood and tissues).

Blood pressure: Definition of blood pressure (pressure exerted by blood on vessel wall), systolic pressure (contraction), diastolic pressure (relaxation), blood pressure classifications (hypotension, normal, high normal, mild hypertension, moderate hypertension, severe hypertension), short and long term effects of exercise on blood pressure.



Outcome 2: Understand the structure and function of the respiratory system

Location of the lungs: Located laterally in the chest on the left and right sides, mediastinum, thorax, pleural membrane layer, visceral membrane layer, serous membrane layer.

Function and structure of the lungs: Function of lungs (paired organs for ventilation, external and internal respiration, elimination of carbon dioxide, supply of oxygen), structure of lungs (left lung – two lobes, right lung – three lobes, bronchus, bronchioles, sub-divisions, capillaries, alveoli, alveolar sacs).

Muscles involved in breathing: Inhalation (inspiration), exhalation (expiration), muscles involved (diaphragm, external intercostals), forced inspiration accessory muscles (sternocleidomastoids, scalenes, pectoralis minor), forced expiration muscles (internal intercostals, transversus abdominus, rectus abdominus), functional considerations (e.g. total lung capacity, vital capacity).

Passage of air during breathing: Upper respiratory tract (mouth, nose and pharynx), lower respiratory tract (larynx, trachea, bronchi, bronchioles), alveoli, alveolar sacs.

Process of gaseous exchange: Surface area for gas exchange (300 million alveoli, 2400km of airways), partial pressure difference (higher and lower partial pressures), diffusion of gases, effect of breathing rate and depth, relative composition of inhaled air (21% oxygen, 0.04% carbon dioxide), relative composition of alveolar air (14% oxygen, 5.5% carbon dioxide), relative composition of exhaled air (16% oxygen, 4.5% carbon dioxide).



Outcome 3: Understand the structure and function of the skeleton

Functions of the skeleton: Support and shape, protection, muscle attachment and movement, production of blood cells, mineral homeostasis, storage of energy.

Structures of axial skeleton: Names and locations of bones including cranium, cervical vertebrae (7), thoracic vertebrae (12), lumbar vertebrae (5), sacral vertebrae (5), coccyx (3-5), intervertebral discs, sternum, ribs.

Structures of appendicular skeleton: Names and locations of bones including scapula, clavicle, humerus, radius, ulna, carpals, metacarpals, phalanges, ilium, ischium, pubis, femur, patella, tibia, fibula, tarsals, metatarsals, phalanges.

Classification of bones: Long (e.g. femur, tibia), short (e.g. tarsals, carpals), flat (e.g. scapula, pelvis), irregular (e.g. vertebrae), sesamoid (e.g. patella), classification based on structure and function.

Structure of long bone: Characteristics (greater length than width, slightly curved), structure (diaphysis, epiphyses, metaphysis, articular cartilage, periosteum, medullary, endosteum, compact bone, spongy bone, bone marrow).

Stages of bone growth: Development of cartilage, growth of cartilage, development of ossification centre, development of diaphysis and epiphysis, ossification (osteoblasts, osteoclasts), changes in bone growth with age, importance of calcium, factors affecting bone density (exercise, age and osteoporosis).

Posture and curves of the spine: Natural mild S-shaped curve of the spine (cervical and lumbar lordoses, thoracic and spinal kyphoses), primary curves of the spine, secondary (developmental) curves of the

spine.

Posture and neutral spine alignment: Optimum position of spine and pelvis, maintenance of the natural spinal curvature (cervical, thoracic, lumbar), maintenance of posture in standing, sitting, lying positions.

Posture and potential ranges of motion of the spine: Cervical (rotation, flexion and extension), thoracic (rotation, limited flexion and extension), lumbar (flexion, extension, hyperextension), sacral (no range of motion), coccyx (no range of motion), normal thoracic kyphosis (20-45°), normal lumbar lordosis (20-45°), scoliosis (a right-left curve of more than 10°).

Postural deviations: Excessive deviations (hyperlordotic and hyperkyphotic), less than normal deviations (hypolorditic and hypokyphotic), definitions and causes (kyphosis, lordosis, scoliosis), effect of pregnancy on posture (e.g. how carrying a baby affects the natural curve).



Outcome 4: Understand joints in the skeleton

Classification of joints: Structural classifications, fibrous (e.g. cranium), cartilaginous (e.g. vertebrae), synovial (e.g. knee), functional classifications (synarthrosis/immovable, amphiarthrosis/slightly moveable, diarthrosis/freely moveable).

Structure of synovial joints: Articular capsule, fibrous capsule, synovial cavity, synovial membrane, synovial fluid (lubrication), articular cartilage (shock absorption, decrease friction between bones), bursae (shock absorption), ligaments (attach bone to bone, joint stability).

Types of synovial joints and range of motion: Gliding (side to side, back and forth e.g. between carpals and tarsals), pivot (rotation e.g. atlas and axis), saddle (flexion, extension, abduction, adduction, circumduction e.g. thumb), ellipsoid (flexion, extension, abduction, adduction, circumduction e.g. wrist), ball and socket (flexion, extension, abduction, adduction, rotation, circumduction e.g. hip and shoulder), hinge (flexion and extension e.g. knee and elbow).

Joint movement potential and actions: Shoulder (flexion, extension, abduction, adduction, horizontal flexion/adduction, horizontal extension/abduction, internal rotation, external rotation), elbow (flexion, extension, supination, pronation), shoulder girdle (elevation, depression, protraction, retraction), spine (flexion, extension, lateral flexion, rotation), hip (flexion, extension, abduction, adduction, internal rotation, external rotation), knee (flexion, extension), ankle (plantarflexion, dorsiflexion, inversion, eversion), actions during different exercises.



Outcome 5: Understand the muscular system

Muscle tissue types, characteristics and functions:

Skeletal muscle (striated, voluntary, very large fibre diameter, short to moderate fibre length, fast speed of contraction, attach to bones, e.g. quadriceps), cardiac muscle (striated, involuntary, large fibre diameter, moderate fibre length, moderate speed of contraction, e.g. heart muscle/myocardium), smooth muscle (no striations, involuntary, small fibre diameter, short to long fibre length, slow speed of contraction, e.g. artery walls).

Structure of skeletal muscle: Tendon (attach muscle to bone), epimysium, perimysium, endomysium, fascicle, muscle fibres, myofibrils, myofilaments (actin, myosin), sarcolemma, sarcomere (Z discs, H zone, M line, A band, I bands), arrangement of fasciculi (parallel, fusiform, pennate).

Muscle names and locations: Anterior muscles (pectoralis major, anterior deltoids, medial deltoids, biceps, rectus abdominis, obliques, transverse abdominis, hip flexors, quadriceps, adductors, anterior tibialis), posterior muscles (trapezius, rhomboids, medial deltoids, posterior deltoids, triceps, latissimus dorsi, erector spinae, gluteals, abductors, hamstrings, gastrocnemius, soleus), diaphragm, intercostals.

Structure and function of pelvic floor muscles:

Levator ani (pubococcygeus, puborectalis, and iliococcygeus), coccygeus, associated connective tissues which span the area underneath the pelvis (perineum, perineal membrane, perineal pouch), pelvic cavity, function (stability of the pelvis, support bladder and bowel, support uterus in women).

Types of muscle action: Definitions of muscle contractions (isotonic concentric, isotonic eccentric, static/isometric, isokinetic), definitions of muscle roles (agonist/prime mover, antagonist, synergist/assistant, fixator), contractions and muscle roles during different exercises.

Joint actions: Pectoralis major (adduction of arm, horizontal flexion of arm), deltoids (abduction of the shoulder, flexion and extension of the shoulder), biceps (flexion of the elbow), rectus abdominis (flexion of the spine), obliques (lateral flexion and rotation of the spine), transverse abdominis (isometric stabilisation of the spine), hip flexors (flexion of the hip), quadriceps (extension of the knee, flexion of the hip), adductors (adduction of the hip), anterior tibialis (dorsi flexion of the ankle), trapezius (extension of the neck, elevation of the shoulder, depression of the scapula, retraction of the scapula), triceps (extension of the elbow), latissimus dorsi (adduction of the shoulder, shoulder extension), erector spinae (extension of the spine), gluteals (extension of the hip), abductors (abduction of the hip), hamstrings (flexion of the knee, extension of the hip), gastrocnemius (plantar flexion of the ankle, assist flexion of knee), soleus (plantar flexion of ankle with bent knee), joint actions during different exercises.

Muscle fibre types and characteristics:

Fast twitch type 2 (white in colour, high intensity, short duration, low in mitochondria, low in myoglobin, fast contraction speed, fast to fatigue), slow twitch oxidative type 1 (red in colour, low intensity, long duration/endurance, high in mitochondria, high in myoglobin, slow contraction speed, resistant to fatigue).



Outcome 6: Understand the life course of the musculoskeletal system and its implications for special populations exercise

Life course of the musculoskeletal system for young people between 14-16 years:

Life course (muscular hypertrophy, strength and power development, increase in bone density, strengthened attachment of tendons and ligaments), implications for exercise (differentiation between improvements through natural development or exercise, consideration of developing joint structures, gradual warm up and cool down, avoid heavy resistance exercises, use RPE to monitor exercise intensity, resistance training should use light weights and high reps, emphasise correct exercise technique, rest and recovery to avoid overuse and over training).

Life course of the musculoskeletal system for antenatal and postnatal women:

Life course (weight gain, decreased bone density, increased force at joints and tendons, excessive lumbar lordosis, joint and ligament laxity in the lumbar spine, change in centre of gravity, weakness in abdominal muscles, widening of sacroiliac joints and pubic symphysis, increase in anterior pelvic tilt), implications for exercise (avoid supine exercise after 16 weeks of pregnancy, avoid prone exercise, avoid prolonged motionless standing, avoid heavy isometric or overhead resistance exercise, avoid leg adduction and abduction against resistance, avoid loaded forward flexion, avoid rapid changes of direction, avoid uncontrolled twisting or ballistic movements, avoid risk of falling or trauma, avoid high intensity or impact exercise, avoid crunching and twisting abdominal exercises).

Life course of the musculoskeletal system for older people (50+): Life course (1-2% loss in physical fitness each

year, loss of neuromuscular function, signs and symptoms of potentially serious musculoskeletal disease, muscular atrophy and decreased muscular strength, decrease in bone density and bone strength, demineralisation in bones, development of osteoporosis, degradation of ligaments and tendons, implications for exercise (undertake longer and more gradual mobility and warm up, undertake a gradually tapered cool down, exercise intensity must be at a challenging but health related level, use RPE scale to monitor intensity, emphasise correct exercise technique, increase duration of transitions, simplify exercise when required, learn new exercises at the most basic level, avoid extreme spinal flexion).



Outcome 7: Understand energy systems and their relation to exercise

Nutrients and the production of energy:

Carbohydrates (e.g. bread, pasta), proteins (e.g. meat, fish), fats (e.g. cheese, butter, energy yield per gram of macronutrient), carbohydrates (break down into glucose, glycogen storage in muscles and liver), fats (break down into fatty acids in presence of oxygen, stored as adipose tissue, protection, energy store), protein (break down into amino acids, growth and repair of muscle, used for energy when other nutrients are depleted), water (hydration), adenosine triphosphate (ATP – break down and resynthesis, energy equation).

Energy systems: Energy molecules (ADP, ATP), systems (creatine phosphate system, glycolytic system, aerobic system).

Use of energy systems during exercise:

Creatine phosphate system (high intensity activity of 6-10 seconds), glycolytic system (moderate to high intensity activity of up to 90 seconds), aerobic system (low to moderate intensity of above 90 seconds), the energy continuum for intensity and duration, relative percentage contributions of energy systems during different activities.



Outcome 8: Understand the nervous system and its relation to exercise

Roles and functions of the nervous system:

Main functions (sense changes to stimuli, information processing, response to stimuli), central nervous system components (brain, spinal cord), CNS roles (receive messages from peripheral nervous system about environment, interprets information, sends messages back to the peripheral nervous system), peripheral nervous system components (sensory neurons, motor neurons), PNS roles (transmits information from receptors to CNS, transmits information from CNS to muscles and glands), peripheral nervous system divisions (autonomic nervous system, somatic nervous system, sympathetic system, parasympathetic system).

Specific nervous system functions and roles:

Somatic system roles (sensory input, control of voluntary muscle), autonomic system roles (sense hormonal balance, internal organ function, control of involuntary muscle, control of endocrine glands), sympathetic division roles (increase heart rate, increase breathing rate, mobilise energy stores, regulation of blood pressure, blood flow redistribution, most active during exercise), parasympathetic division (slows down functions, more active during rest and recovery).

Principles of muscle contraction:

Sliding filament theory (myosin and actin, cross bridges, shortening of sarcomere), process (attachment of myosin to actin, power stroke, detachment, ATP and energy transfer).

Motor unit recruitment: Motor units (motor neuron, muscle fibre), small motor units (type I), large motor units (type II),

all or none law (if a stimulus is above threshold individual muscle fibres fully contract, if a stimulus is below threshold muscles fibres do not contract), strength of muscle contraction.

Exercise and neuromuscular enhancement:

Aerobic training adaptations (improved aerobic capacity of trained muscles, glycogen sparing, increased fat utilisation), resistance training adaptations (improved motor recruitment, increased ability to achieve stronger muscle contractions, muscle fibre hypertrophy, muscle fibre hyperplasia, improved recruitment of fast twitch fibres), motor skills training adaptations (growth of new nervous system connections, increased frequency of nerve impulses to motor units, improved synchronous motor unit recruitment, improved inter-muscular co-ordination, automatic performance of movement patterns).

UV20525

Principles of exercise, fitness and health

It is the aim of this unit to develop your knowledge and understanding of safe and effective exercise for a range of clients, the health benefits of physical activity and the importance of healthy eating.

Level

2

Credit value

4

GLH

28

Observation(s)

0

External paper(s)

1



Principles of exercise, fitness and health

Learning outcomes

On completion of this unit you will:

1. Understand the effects of exercise on the body
2. Understand the components of fitness
3. Understand how to apply the principles and variables of fitness to an exercise programme
4. Understand exercise contra-indications and the key safety guidelines for special populations
5. Understand how to safely monitor exercise intensity
6. Understand the health benefits of physical activity
7. Understand the importance of healthy eating

Evidence requirements

1. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes must be achieved.
3. *External paper*
Knowledge and understanding in this unit will be assessed by an external paper. **There is one external paper that must be achieved.**

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

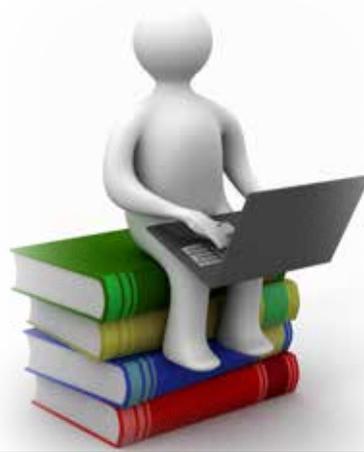
Achieving the external paper

The external paper will test your knowledge of all criteria in this section. **A pass mark of 70% must be achieved.**

Your assessor will complete this table when the 70% pass mark has been achieved.

Paper	Date achieved	Assessor initials
1 of 1		

Knowledge



Outcome 1

Understand the effects of exercise on the body

You can:	Portfolio reference / Assessor initials*
a. Describe cardiovascular and respiratory adaptations to endurance/ aerobic training	
b. Identify the short and long term effects of exercise on blood pressure	
c. Describe the 'blood pooling' effect following exercise	
d. Describe the effects of exercise on bones and joints including the significance of weight bearing exercise	
e. Describe Delayed Onset of Muscle Soreness (DOMS)	
f. Identify exercises or techniques likely to cause DOMS	
g. Describe the short and long term effects of different types of exercise on muscle	
h. Describe different exercises that can improve posture	

**Assessor initials to be inserted if orally questioned.*



Outcome 2

Understand the components of fitness

You can:	Portfolio reference / Assessor initials*
a. Define the components of health related fitness	
b. Define the components of skill related fitness	
c. Identify the factors that affect health and skill related fitness	

**Assessor initials to be inserted if orally questioned.*



Outcome 3

Understand how to apply the principles and variables of fitness to an exercise programme

You can:	Portfolio reference / Assessor initials*
<p>a. Describe the physiological implications of:</p> <ul style="list-style-type: none"> • specificity • progressive overload • reversibility • adaptability • individuality • recovery time 	
<p>b. Explain the principles of FITT (Frequency, Intensity, Time and Type)</p>	
<p>c. Explain the principles of a progressive training programme in developing components of fitness</p>	
<p>d. Explain how to recognise when and how to regress a training programme</p>	
<p>e. Explain the principles of adaptation, modification and progression for each component of FITT</p>	
<p>f. Describe the effect of speed on posture, alignment and intensity</p>	
<p>g. Describe the effect of levers, gravity and resistance on exercise</p>	
<p>h. Describe the differences between programming exercise for physical fitness and for health benefits</p>	

**Assessor initials to be inserted if orally questioned.*



Outcome 4

Understand exercise contra-indications and the key safety guidelines for special populations

You can:	Portfolio reference / Assessor initials*
a. Describe the exercise contra-indications and key safety guidelines for working with older people (aged 50+)	
b. Describe the exercise contra-indications and key safety guidelines for working with antenatal and postnatal clients	
c. Describe the exercise contra-indications and key safety guidelines for working with young people (aged 14-16)	
d. Describe the key safety considerations for working with disabled people	

*Assessor initials to be inserted if orally questioned.



Outcome 5

Understand how to safely monitor exercise intensity

You can:	Portfolio reference / Assessor initials*
<p>a. Describe the benefits and limitations of different methods of monitoring exercise intensity including:</p> <ul style="list-style-type: none">• the talk test• Rating of Perceived Exertion (RPE)• heart rate monitoring and the use of different heart rate zones	

**Assessor initials to be inserted if orally questioned.*



Outcome 6

Understand the health benefits of physical activity

You can:	Portfolio reference / Assessor initials*
a. Describe the health benefits of physical activity	
b. Describe the effect of physical activity on the causes of certain diseases including: <ul style="list-style-type: none">• coronary heart disease• some cancers• type 2 diabetes• hypertension• obesity• osteoporosis	

**Assessor initials to be inserted if orally questioned.*



Outcome 7

Understand the importance of healthy eating

You can:	Portfolio reference / Assessor initials*
a. Describe the national food model/guide	
b. Describe key healthy eating advice that underpins a healthy diet	
c. Explain the importance of adequate hydration	
d. Explain professional role boundaries in relation to offering nutritional advice	
e. Explain the dietary role of the key nutrients	
f. Identify the common dietary sources of the key nutrients	
g. Describe the energy balance equation	
h. Explain the health risks of poor nutrition	

**Assessor initials to be inserted if orally questioned.*

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Understand the effects of exercise on the body

Adaptations to endurance training:

Cardiovascular (improved oxygen transport, increased heart size, increased stroke volume, decreased resting heart rate, increased cardiac output, improved blood flow distribution, increased blood volume, capillarisation, decreased blood pressure, respiratory (improved pulmonary ventilation, improved pulmonary diffusion, arterial-venous oxygen difference, decreased resting breathing rate, increased lung capacity).

Effects of exercise on blood pressure:

Short term effects of exercise (no change in diastolic pressure, progressive increase in systolic pressure), long term effects of exercise (reduction in overall resting blood pressure, improved regulation of overall blood pressure).

Blood pooling: In the extremities, venous return (skeletal muscle pump, non-return valves), associated risks (dizziness, fainting), prevention of blood pooling through progressive cool down.

Effects of exercise on bones and joints:

Improved bone density, increased joint stability, improved mobilisation and range of motion at joints, significance of weight bearing exercise (bone structure, ageing and osteoporosis), types of weight bearing exercise (walking, running, resistance training), potential risk of injury.

Effects of exercise on muscles: Short term (increased contractility, increased excitability, increased elasticity, increased energy metabolism, heat generation),

long term effects of aerobic exercise (increased concentration of aerobic enzymes, increased size and number of mitochondria, increased ability to use fat as an energy source, increased storage of muscle glycogen, increased supply of intramuscular fat), hypertrophy (increase in muscle mass and cross-sectional area, possible increase in number of muscle fibres, increased motor unit recruitment).

Delayed onset of muscle soreness (DOMS):

Structural muscle damage (microscopic fibre tears, muscle cell leakage), effects of eccentric muscle contra-actions, causal exercises and techniques (e.g. plyometrics, eccentric resistance training, isometric training, downhill running, higher than normal exercise intensity).

Exercises to improve posture: Floor based core stability exercises, equipment based core stability exercises, exercise starting positions (standing, seated, lying prone, lying supine, lying sideways, hand and knees), equipment (swiss ball, stability discs, cable machines), other functional multi-joint exercises, progression of exercises (resistance through levers and external, combined movements, rate and speed of movement, repetitions, range of motion), technique consideration (correct pelvic tilt, neutral spine, engaging core muscles).



Outcome 2: Understand the components of fitness

Components of fitness: Definitions of health related fitness components (cardiovascular endurance, muscular endurance, muscular strength, flexibility, body composition), definitions of skill related fitness components (speed, power, agility, balance, co-ordination, reaction time), importance of fitness components for different activities.

Factors affecting fitness: Genetics, gender, age, body type, training status, lifestyle factors (nutrition, smoking, alcohol, drugs, rest, stress).

Outcome 3: Understand how to apply the principles and variables of fitness to an exercise programme

Principles and variables of training: Definitions (specificity, progressive overload, reversibility, adaptability, individuality, recovery time), associated physiological implications, application for each component of fitness.

FITT principles: Definitions for health and fitness (Frequency, Intensity, Time, Type), American College of Sports Medicine (ACSM) standard guidelines (application for each component – cardiovascular health, cardiovascular fitness, muscular strength and endurance, flexibility, physical activity).

Progression of a training programme: Training needs analysis, specificity, adaptation, overload, recovery (adaptation), reversibility, ACSM progression guidelines using FITT principles, SMART goal setting (Specific, Measurable, Achievable, realistic, Time bound).

Regression of a training programme: Causes of overtraining (inadequate recovery, overparticipation in competition, repetitive and boring training, consistent high intensity, high levels of non-training

stress), recognising signs and symptoms of overtraining (condition and performance, psychological, movement co-ordination), periodisation through manipulation of training principles and variables (intensity, volume), guidelines for prevention and recovery of overtraining, importance of rest and recovery.

Effect of speed: Slow exercise speed (allows strict posture, allows accurate alignment), faster exercise speed (increases intensity, increases potential for injury risk, increases potential for improper posture and alignment).

Effect of levers, gravity and resistance: Levers during exercise, effects of levers on exercise (speed of movement, force generation, range of motion, torque loads), gravity (speed and control of eccentric movements, power generation), resistance (intensity, speed of movement).

Exercise programming differences: Differences between programming for health and physical fitness, reasons for differences.



Outcome 4: Understand exercise contra-indications and the key safety guidelines for special populations

Exercise contra-indications and key safety guidelines for older adults (50+):

Clients (screened and asymptomatic, little or no experience of the type of exercise, only 1% of the 50+ population is highly trained, activity levels are low and decline with age, 1-2% loss in physical components of fitness each year), contra-indications (loss of physiological and psychological function, poor functional status, signs and symptoms of a potentially serious disease, sensory and cognitive declines), safety guidelines (undertake a pre-exercise health screening, refer to other professionals if required, undertake longer and more gradual mobility and warm-up, undertake a gradually tapered cool down, exercise intensity must be at a challenging but health related level, use RPE scale to monitor intensity, emphasise correct exercise technique, increase duration of transitions, simplify exercise when required, learn new exercises at the most basic level, avoid extreme spinal flexion).

Exercise contra-indications and key safety guidelines for antenatal and postnatal women:

Clients (normal and healthy adult women, normal and healthy pregnancy, normal and healthy birth, previously normal and healthy pregnancies and births), contra-indications (injury, joint misalignment, muscle imbalance, motor skill decline, embolism, thrombosis, haemorrhage, pelvic floor dysfunction, neck and shoulder pain, experiencing other pregnancy related symptoms), safety guidelines (non-exercisers should begin with 15 minutes continuous aerobic activity gradually increasing to 30 minutes, do not exceed 45 minutes duration, maintain adequate hydration and calorie

intake, avoid exercising in hot and humid conditions, use the RPE scale to monitor intensity not heart rate, avoid supine exercise after 16 weeks of pregnancy, avoid prone exercise, avoid prolonged motionless standing, avoid heavy isometric or overhead resistance exercise, avoid leg adduction and abduction against resistance, avoid loaded forward flexion, avoid rapid changes of direction, avoid uncontrolled twisting or ballistic movements, avoid risk of falling or trauma, avoid high intensity or impact exercise, re-educate post-birth women on posture and joint alignment before progressing, avoid crunching and twisting abdominal exercises, babies should be excluded from the exercise area, ensure instructor's first aid skills are up-to-date, follow exercise guidelines for trimesters of pregnancy,

Exercise contra-indications and key safety guidelines for young people (aged 14-16):

Clients (screened and asymptomatic, apparently healthy young people), contra-indications (stage of growth and development, musculoskeletal injuries), safety guidelines (wear appropriate clothing and footwear, undertake a gradual warm up and cool down, avoid heavy resistance exercises, use RPE to monitor exercise intensity, resistance training should use light weights and high reps, emphasise correct exercise technique, avoid ballistic stretching, ensure adequate hydration and calorie intake).

Exercise contra-indications and key safety guidelines for disabled people:

Contra-indications (impaired physical condition and function, impaired motor skills, impaired neurological or cognitive function, impaired sensory



Outcome 4: Understand exercise contra-indications and the key safety guidelines for special populations (continued)

function, musculoskeletal imbalances and postural deviations), safety guidelines (undertake exercise in a safe and supportive environment, make reasonable adjustments to enable access, refer to other professionals if required, adapt exercise for the disability, provide specialist assistance if required, incorporate functional and life related movement, use specialist equipment if required).

Outcome 5: Understand how to safely monitor exercise intensity

Methods of monitoring exercise

intensity: Talk test, visual signs, rating of perceived exertion (RPE), heart rate monitoring, using different heart rate training zones (for health benefits, for

specific fitness improvements), benefits and limitations of methods (specific clients needs, safety, practicality, reliability, validity).

Outcome 6: Understand the health benefits of physical activity

Health benefits of physical activity:

Reduced early mortality, reduced morbidity (coronary heart disease, diabetes), improved mental health and psychological wellbeing (anxiety, depression, stress, mood), cardio-protective mechanisms, improved weight management and body composition, improved posture, prevention of lower back pain, reduced risk of injury, improved joint stability, increased bone density, improved ability to perform active daily living tasks.

Effect of physical activity on disease

causes: Coronary heart disease (reduced

blood pressure, improved blood cholesterol profile, improved elasticity of blood vessels, capillarisation, improved blood flow distribution), some cancers (reduced stress and lifestyle changes), type 2 diabetes (improved regulation of insulin, improved blood glucose regulation), hypertension (reduced blood pressure, improved blood flow distribution, improved elasticity of blood vessels, reduced muscular tension, reduced stress level), obesity (improved fat metabolism, increased calorie expenditure), osteoporosis (increased bone formation, improved density, improved posture, reduced risk of injury).



Outcome 7: Understand the importance of healthy eating

Healthy eating: Principles of a healthy balanced diet, National Food Guide, Food Standards Agency (FSA), eat well plate (balance of good health), Government Department of Health 'five a day' recommendation.

Importance of hydration: Type of drink, intake quantity, timing of intake, importance (maintain body balance/homeostasis, maintain body processes and functions, maintain physical and mental performance).

Professional role boundaries: Code of Ethics, when to refer to GP or dietary professionals (obesity, malnutrition, excessively underweight, eating disorders).

Key nutrients: Macronutrients (carbohydrates, fats, proteins), micronutrients (water soluble vitamins C and B, fat soluble vitamins A, D, E and K), minerals (calcium, copper, iron, magnesium, phosphorus, potassium, sodium, selenium, zinc), water.

Dietary role of key nutrients: Carbohydrate (energy, digestion, nervous system function), fats (provide essential fatty acids, insulation, protection of vital organs, energy, transport fat-soluble vitamins), protein (muscle growth, muscle repair, oxygen transport, fight disease, energy), vitamins (energy metabolism, protein synthesis, glycogen synthesis, blood clotting, red blood cell formation, aid growth, maintenance of teeth and bones, aids vision), minerals (bone growth, teeth growth, energy production, enzyme function, nerve and muscle function, water balance, blood clotting, oxygen transport in red blood cells), water (maintain hydration, maintain homeostasis, heat regulation, maintain blood plasma volume, removal of

waste products).

Dietary sources of the key nutrients:

Simple carbohydrates (sugar, sweets, chocolate, fruit), complex carbohydrates (beans, bread, pasta, potatoes, rice, corn), fats (meat, dairy products, processed foods cakes, biscuits, pies, oils), protein (meat, fish, eggs, dairy products, grains, beans, leafy vegetables), vitamins (vegetables, fruit, milk, fish, eggs), minerals (milk, nuts, vegetables, meats).

Energy balance equation: Energy needs for different activities, energy intake, energy expenditure, positive energy balance, negative energy balance, basic metabolic rate (BMR), physical activity levels, calculating energy intake and expenditure.

Health risks of poor nutrition: Obesity, diabetes, malnutrition, heart disease, stroke, osteoporosis, cancer, poor circulation, hypertension, arthritis, mental health problems (depression, anxiety, low self image).

UV20523

Know how to support clients who take part in exercise and physical activity

The aim of this unit is to develop your knowledge and understanding of how to support clients and provide ongoing customer service. You will also develop the skills to support clients taking part in exercise and physical activity.

Level

2

Credit value

2

GLH

13

Observation(s)

0

External paper(s)

0



Know how to support clients who take part in exercise and physical activity

Learning outcomes

On completion of this unit you will:

1. Understand how to form effective working relationships with clients
2. Understand how to address barriers to exercise/physical activity that clients experience
3. Understand how to support clients to adhere to exercise/physical activity
4. Understand how to provide ongoing customer service to clients

Evidence requirements

1. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *External paper*
There is no external paper requirement for this unit.

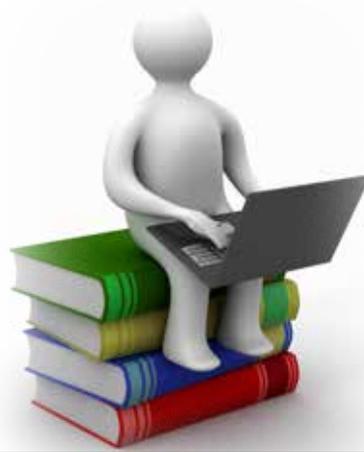
Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

Knowledge



Outcome 1

Understand how to form effective working relationships with clients

You can:	Portfolio reference / Assessor initials*
a. Explain why it's important to form effective working relationships with clients	
b. Explain why it's important to present oneself and the organisation positively to clients	
c. Describe how different communication skills can be used to assist clients with motivation	
d. Explain the importance of valuing equality and diversity when working with clients	

**Assessor initials to be inserted if orally questioned.*



Outcome 2

Understand how to address barriers to exercise/physical activity that clients experience

You can:	Portfolio reference / Assessor initials*
a. Identify the typical barriers to exercise/physical activity that clients experience	
b. Explain how incorporating a client's exercise/physical activity preference into their programme can strengthen motivation and adherence	
c. Describe different incentives and rewards that can strengthen client motivation and adherence	
d. Describe different strategies that can help clients overcome typical barriers to exercise/physical activity	

*Assessor initials to be inserted if orally questioned.



Outcome 3

Understand how to support clients to adhere to exercise/ physical activity

You can:	Portfolio reference / Assessor initials*
a. Explain why it is important for a client to take personal responsibility for their own fitness and motivation	
b. Describe how to assist clients to develop their own strategy for motivation and adherence	
c. Identify different behaviour change approaches/strategies to encourage adherence to exercise/physical activity	
d. Describe how to set short, medium and long term SMART goals	
e. Describe how to review and revise short, medium and long term SMART goals	

**Assessor initials to be inserted if orally questioned.*



Outcome 4

Understand how to provide ongoing customer service to clients

You can:	Portfolio reference / Assessor initials*
a. Explain the importance of client care both for the client and the organisation	
b. Explain why it is important to deal with client needs to their satisfaction	
c. Identify where to source relevant and appropriate information to meet client needs	
d. Explain the importance of dealing with any delay in meeting client needs timely and effectively	
e. Give examples of how to exceed customer expectations, when appropriate	
f. Explain the importance of handling client complaints positively following an organisation's procedure	

*Assessor initials to be inserted if orally questioned.

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Understand how to form effective working relationships with clients

Effective working relationships with clients:

Different clients (specific needs, apparently healthy adults, apparently healthy young people, antenatal and postnatal clients, disabled clients), importance of gaining mutual respect, gaining mutual confidence, gaining mutual trust, determine client needs, establish rapport.

Positive presentation of self and organisation:

Presentation (professional conduct, dress/appearance, attitude, show respect, equal opportunities, inclusion and exclusion, punctuality), importance of gaining clients' confidence, gaining clients' respect, enhance professional image and reputation, gain repeat clients, word of mouth, gain new clients.

Communication skills and client motivation:

Personalised, client feels valued, friendly and welcoming with new and returning clients, verbal (telephone, face to face, language, voice intonation, accent, dialect), non-verbal (questionnaires, handouts, posters, e-mails, websites, social networking), body language to provide positive feedback to clients, active listening to encourage client views about their performance, open questions, demonstration to show and reinforce exercise techniques, informal consultation to discuss client needs and set goals, written communication to summarise agreed goals and plans.

Importance of valuing equality and diversity:

To maintain respect and dignity, to ensure fair treatment, to meet

individual needs, to provide individual encouragement to reach potential, to provide a safe, supportive and welcoming environment, equality and diversity can be met by maintaining professional boundaries, staying non-judgmental and ensuring equal rights (gender, race, nationality, ethnic or national origin, religious or political beliefs, disability, marital status, social background, family circumstance, sexual orientation, gender reassignment, spent criminal convictions, age or for any other reason).



Outcome 2: Understand how to address barriers to exercise/physical activity that clients experience

Typical barriers to exercise: Threatened by 'super-fit instructors/beautiful people', access, transport, cost, time, energy, lack of motivation, lack of knowledge, self-conscious, low self-efficacy, low self-esteem, lack of childcare, gender, age, ethnicity, socio-economic status, social pressure, health and injury concerns, no exercise partner to motivate, unreadiness to change behaviour.

Strengthen motivation and adherence: Incorporate client's exercise and physical preferences, plan programmes accordingly, preferences (health related, fitness related, enjoyment related, social), consideration of these factors strengthen motivation and adherence (increase intrinsic motivation, increase client control and autonomy, increase self-efficacy, increase potential competence and ability, increase enjoyment).

Incentives and rewards: Physical and psychological health benefits, physical fitness improvements, achievement of personal goals, social interaction, fun and enjoyment, improved ability to complete daily living tasks, positive praise and feedback from others, free memberships, free training sessions, free personal instruction, gym challenges, social events, rewards based on attendance, rewards based on achievement of goals.

Strategies to overcome barriers to exercise: Select appropriate exercise activities (ability, fitness level, enjoyment, client needs, peer group), provide financial concessions, appropriate time scheduling of exercise activities, provide accurate exercise information and advice, provide access to childcare, referral to relevant health professionals,

social support and inclusion, encourage exercise partners, goal setting (SMART), positive reinforcement, enthusiasm, encouragement, social support, rapport with instructor, teaching approaches (learning style, verbal/non-verbal communication, equal opportunities).



Outcome 3: Understand how to support clients to adhere to exercise/physical activity

Importance of taking personal responsibility:

Increase intrinsic motivation, increase control and autonomy, increase potential for exercise adherence, encourage personal reflection of progress and needs.

Assisting clients to develop their own strategy:

Regular consultations with client, clarify goals, establish realistic expectations, review exercise behaviour, address barriers to exercise, make strategy plan for relapse.

Behaviour change approaches/strategies:

Behaviour change (stages of behaviour change, relapse prevention model), approaches/strategies (prompting, contract between trainer and client, rewarding attendance, positive feedback on progress, goal setting and review, social support, reduce barriers, provide exercise information and guidance).

Goal setting:

Needs and wants analysis, SMART principles (specific, measurable, achievable, realistic, time bound), short, medium and long term SMART goals (improve health, develop specific fitness components, sport specific, improve psychological wellbeing, improve social interaction, fun and enjoyment, lifestyle, functional ability for daily life, weight management).

Review and revise goals:

Review short, medium and long term SMART goals, goal review methods (consultation, written client questionnaire, analysis of exercise records), review progress (achievement of agreed goals, previous and current client needs), and set new SMART goals.



Outcome 4: Understand how to provide ongoing customer service to clients

Importance of client care: For the client (personalised customer service, enhanced customer experience, achievement of goals), for the organisation (avoidance of litigation (law of tort), improved retention, growth of business, maintain image and reputation).

Importance of dealing with client needs: Maintain satisfaction of client, meet client needs, achieve client goals, maintain confidence and trust of client, promote client adherence and attendance, maintain professional and organisation image, positive word of mouth, potential increase in client base.

Sources of appropriate information to meet client needs: Timetables, noticeboard, e-mails to keep clients informed, referral professionals (GP, physiotherapist, nutritionist), evidence based journals, evidence based websites, evidence based text books, customer feedback.

Importance of meeting client needs timely and effectively: Maintain client satisfaction, to stop a problem escalating, optimise effectiveness of service, maintain customer loyalty, minimise risk of relapse or drop-out, maintain reputation and professional image.

Exceed customer expectations: Customer needs analysis, provide service over and above what is expected, follow organisation's procedures, examples of exceeding expectations (level of personal attention and service, standard of exercise service provided, levels of personal communication experienced).

Handle client complaints positively: Acknowledge complaint immediately (HEAT – Hear, Empathise, Apologise, Take action), handle complaints (privately, positively, confidently, professionally, promptly, confidentially, empathetically, with trust and respect, to client's satisfaction), follow agreed procedures.

UV20532

Planning health related exercise and physical activity for children

It is the aim of this unit to develop the knowledge and understanding that you need to be able to plan structured health related exercise and physical activity for apparently healthy children in the 5-15 age range.

Level

2

Credit value

3

GLH

23

Observation(s)

2

External paper(s)

0



Planning health related exercise and physical activity for children

Learning outcomes

On completion of this unit you will:

1. Be able to collect relevant information to plan safe and effective exercise/physical activity for children
2. Understand how to collect relevant information to plan health related exercise/physical activity for children
3. Understand how to use information to plan health related exercise/physical activity for children
4. Understand how to plan safe and effective exercise/physical activity for children
5. Be able to plan safe and effective exercise/physical activity for children

Evidence requirements

1. *Environment*
Evidence for this unit must be gathered in a real or realistic working environment.
2. *Simulation*
Simulation is not allowed in this unit.
3. *Observation outcomes*
Competent performance of 'Observation' outcomes must be demonstrated to your assessor on **at least two occasions**.
4. *Range*
All ranges must be competently demonstrated.
5. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
6. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*
There is no external paper requirement for this unit.

Achieving observations and range

Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be required to produce other forms of evidence or asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through oral questioning.

Your assessor will sign off an outcome when all criteria have been competently achieved.

Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation. Where this is not possible other forms of evidence may be produced. All ranges must be covered.

Your assessor will document the portfolio reference once a range has been competently achieved.



Observations

Outcome 1

Be able to collect relevant information to plan safe and effective exercise/physical activity for children

You can:

- a. Collect the information needed to plan exercise/physical activity sessions for children
- b. Make sure the information is accurate and up-to-date
- c. Give examples of how participant information affect the planning of exercise/physical activity for children
- d. Make sure there is informed parental/carer consent for the exercise/physical activity sessions
- e. Maintain confidentiality of information

* May be assessed through oral questioning.

Observation	1	2	Optional
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Range

You must practically demonstrate that you have:

Followed all procedures	Portfolio reference
Collected appropriate information according to the individual child	
Registered attendance	
Monitored that it is safe for each child to take part	
Collected information from all sources	Portfolio reference
Child	
Parents/carers	
School	
Planned sessions that include all components	Portfolio reference
A safe and effective warm-up	
Range of physical activities that are safe and appropriate (take account of growth and development)	
Cool down activities (safe and effective for children)	
Planned sessions to include all objectives	Portfolio reference
Promote and enhance activity levels	
Improve social skills	
Personal development	
Improve skills and techniques	
Provide opportunities for fun and enjoyment	

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning.

Knowledge



Outcome 2

Understand how to collect relevant information to plan health related exercise/physical activity for children

You can:	Portfolio reference
a. Describe the process of screening as it applies to children	
b. Explain the process of informed consent as it applies to children	
c. Describe different methods to collect information: <ul style="list-style-type: none">• questionnaire• interview• observation	
d. Describe how to determine which method/s of collecting information are appropriate according to the individual child	



Outcome 3

Understand how to use information to plan health related exercise/physical activity for children

You can:	Portfolio reference
a. Describe the factors, based on screening, which may affect safe exercise/physical activity participation for children	
b. Give examples of how information affects the planning of health related exercise/physical activity sessions for children	
c. Identify the reasons for temporary deferral of exercise in children	
d. Explain the reasons for referring children to other professionals	
e. Describe the process of referring children to other professionals	



Outcome 4

Understand how to plan safe and effective exercise/physical activity for children

You can:	Portfolio reference
a. Identify the key stages in planning and preparing exercise/physical activity for children	
b. Outline how to identify objectives for sessions based on collected information and ensure they: <ul style="list-style-type: none"> • promote and enhance activity levels • improve social skills • promote personal development • improve skills and techniques • provide opportunities for fun and enjoyment 	
c. Describe how the use of music can enhance exercise/physical activity sessions for children	
d. Describe how to apply the principles and variables of fitness to a range of activities to achieve health benefits and required levels of physical activity in children	
e. Identify exercises/physical activities that are safe and appropriate for children of all ages, and include possible alternatives	
f. Outline the importance and application of warm-up and cool down when designing exercise/physical activity for children	



Outcome 5

Be able to plan safe and effective exercise/physical activity for children

You can:	Portfolio reference
a. Identify objectives that are appropriate to: <ul style="list-style-type: none"> • the needs and potential of children • accepted good practice in the industry • the learner's own level of competence • the aims of the session 	
b. Plan exercise/physical activity that will help children to achieve the planned objectives	
c. Structure the session so that children will be motivated to adhere to exercise/physical activity	
d. Plan realistic timings for sessions	
e. Identify ground rules for behaviour that will minimise risks to children	
f. Record plans in an appropriate format	

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Be able to collect relevant information to plan safe and effective exercise/physical activity for children

Collect the information: Participant information (personal details - age, gender, address), parent/carer name with parental responsibility (consent purposes), parent/carer contact numbers, address(es), emergency contact name and numbers, lifestyle, medical history, physical activity history, current health status, physical activity preferences, barriers to participation.

Accurate and up-to-date: Information recorded about the children at the first point of contact and reviewed regularly to keep it accurate and up-to-date, records kept identifying any concerns, discussions.

How participant information can affect planning: Modification of warm-up and cool down (e.g. plan longer duration and a more gradual approach for younger participants or lower fitness levels), modification of main exercises (e.g. plan different exercises/activities for different age groups, abilities and skill levels, injury), consider inclusion (special education needs, disabilities).

Informed parental/carer consent: Obtain and record a signed consent from the parent/carer with parental responsibility prior to the session, secure and confidential storage of written informed consent.

Maintain confidentiality: All information about children is private, shared only with those who have a need to know, kept in a safe/secure place, organisations should have a confidentiality policy in place to protect the child at all times, provide clear,

unambiguous guidance to the legal and professional roles and responsibilities that help towards ensuring good practice.



Outcome 2: Understand how to collect relevant information to plan health related exercise/physical activity for children

Process of screening: Verbal, written (PARQ, informed consent), evaluate the participant's health status and identify any medical conditions or risk factors that may be exacerbated by the participation in exercise/physical activity, identify individuals with specific needs, enable prescription of safe and effective exercise, identify levels of previous participation and ability, inform setting of objectives and goals, ensure parent/carer is present.

Process of informed consent: Clarify the purpose of the exercise/physical activity session, explain the physical and technical demands of the session, outline the activities included, clarify the benefits and risks of the exercise session, explain the meaning of informed consent to the participant/parent/carer, parent/carer to complete the screening and consent form, provide the participant/parent/carer with the opportunity to make an informed decision about participation.

Methods of collecting information: Questionnaire (e.g. Physical Activity Readiness Questionnaire (PARQ), lifestyle, medical history), interview (formal, informal), observation (exercise technique, signs of exertion, posture).

Determining appropriate methods: Based on participant's specific needs, based on participant's personality type and confidence, based on availability of time, based on availability of equipment and environment.



Outcome 3: Understand how to use information to plan health related exercise/physical activity for children

Factors affecting safe exercise

participation: Medical conditions (high/low blood pressure, elevated blood cholesterol, diabetes, chest pains during physical exertion, epilepsy, asthma, bone/joint problems, allergies, other illnesses/injuries, developmental conditions), medication, medical history (dizziness, fainting), previous exercise history, fitness and skill level, specific needs (e.g. age, disability, dietary requirements).

Effect of participant information on

planning: Modification of warm-up and cool down (e.g. plan longer duration and a more gradual approach for specific needs, different age groups, lower fitness levels), modification of main exercises (e.g. plan different activities for different age groups or skill levels), modification of exercise intensity (e.g. plan continuous activity for 5-11 year groups, circuits, step, dance for 12+, modify target heart rates for cardiovascular health using RPE scale), modification of programme variables to meet individual needs (e.g. frequency, intensity, duration, progression, overload).

Reasons for temporary deferral of

exercise: Minor illness (e.g. colds), minor injuries (e.g. muscle strain), inappropriate personal clothing and equipment, failure to obtain consent (completed screening and consent form), parent/carer is responsible for monitoring a child during activities below the age of eight years depending on the location of the session.

Reasons for referring children:

Identification of contra-indications and medical conditions (e.g. refer to GP, consultant), identification of injuries and/or developmental conditions (e.g. refer to GP, physiotherapist), when outside the scope of

practice.

Process of referring children: Refer to the parent/carer in the first instance for concerns relating to the participation of exercise/activity and advise where to go next, in the case of abuse or neglect, refer any concerns to appointed person in organisation, social services/police.



Outcome 4: Understand how to plan safe and effective exercise/physical activity for children

Key stages in planning and preparation:

Risk assessment, pre-exercise screening, data protection act, child protection act, guidelines for teaching children (body heat regulation, dehydration, oxygen uptake, underdeveloped neuromuscular pathways, growth spurt), meet the needs of participants with different objectives, improve fitness (stronger muscles and bones, control body fat), improve motivation (fun, enjoyable, social), address barriers to participation (confidence), improve skills and techniques, improve health (control body fat, decrease risk of diabetes), apply ACSM (American College of Sports Medicine) and FITT guidelines (Frequency, Intensity, Time, Type), apply the principles and variables of training (adherence, overload, progression, adaptation, specificity, reversibility), warm-up component (mobility, pulse raising, preparatory stretching (can be combined, continuous movement), induction and skill rehearsal), during cardiovascular component it is important to mix the intensity levels between moderate and vigorous, interval/fartlek system (necessary to allow for the cooling process), muscular strength and endurance component (weight bearing activities, weight selection that allows more than eight reps to complete a set, repetitions increased before resistance is increased), cool down component (steady reduction in exercise/activity intensity, time to reduce excitement and calm environment), maintenance and developmental stretching, a range of exercises to meet individual needs and target shortened muscles (hamstrings, adductors).

Objectives for sessions based on

collected information: Promote and enhance activity levels, improve social skills, promote personal development, improve skills and techniques, provide opportunities for fun and enjoyment, remain within the guidelines and responsibilities for exercise/activity for children.

The use of music: Not essential, can be used to motivate, effective for participants, themed classes.

Applying the principles and variables

of fitness: Improve the components of physical fitness (cardiovascular fitness, muscular strength, muscular endurance, flexibility, motor skills, ACSM recommendations), total fitness (emotional, mental, social, medical, physical), the amount of exercise/activity sufficient for health in relation to the components of fitness (FITT, FITTA).

Exercises/physical activities that are safe and appropriate:

Anatomical/physiological characteristics of children, exercises/activities the children can relate to, session content presented in a fun and creative way (games, visual imagery, scenarios, role play).

Importance and application of warm-up and cool down:

Warm-up exercises (safe physiological and psychological preparation, reduce injury risk, specific skill rehearsal), mobility, pulse raising (can be combined), preparatory stretching, adapt for participants needs (skill and fitness level), adapt for environmental needs (temperature, space, type and intensity of session), suitable to maintain interest, cool down exercises (safely return the body and mind to a resting state, develop flexibility,



Outcome 4: Understand how to plan safe and effective exercise/physical activity for children (continued)

promote recovery from exercise, promote calming and less excitability), instruct safe and effective cool down activities (type, sequence, appropriate to environment, appropriate to participant's ability, appropriate duration and intensity).



Outcome 5: Be able to plan safe and effective exercise/physical activity for children

Appropriate objectives: Meet the needs and potential of children (inclusion), accepted good practice in the industry (national standards), to identify the learner's own level of competence (meet the children's individual needs and promote their welfare), identify the aims of the session (follow a structured session with planned exercise/activities to develop children's physical, emotional, social capabilities).

Plan exercise/activity to help achieve the planned objectives: Consider the national standards to include (group size, space, resources), care, learning and play (individual needs), environment (safe, suitable), equipment (suitable, meet safety standards), safety (risk assessment), equal opportunities (policy), special educational needs (SEN) and disabilities, work with parents/carers (information, arrangements).

Ensure children will be motivated to adhere to exercise/physical activity: Fun and enjoyment with friends and family, means of relaxing, girls/boys differ in motivational factors (boys – fun and social, girls – keeping fit and in shape), encourage a sense of belonging (team), pair children up of a similar age and ability, provide areas of achievement (give goals that can be achieved), record achievements and goals, set up a reward system, positive feedback and reassurance, objectives that meet the needs and demands of different age groups.

Plan realistic timings and sequences: Meet participant objectives and needs, for each component of the session, for different exercises, appropriate to environment, appropriate to type and duration of session.

Ground rules for behaviour to minimise risks: Create an environment that encourages good behaviour, produce a behaviour policy that is followed by the person leading the session and make available to the parent/carer and children, maintain control at all times (use games to regain lost control, varied and changing exercises/activities to maintain attention span, explain the rules and guidelines and maintain them, maintain consistency).

Record programme plans: Use a written programme/session card, record mobility, pulse raiser and stretch exercises (exercise name, reps, sets, duration, teaching points, alternatives), record details of cardiovascular exercises (exercise name, reps, teaching points, alternatives, adaptations), record MSE exercises (exercise name, sets, reps, equipment, intensities, teaching points, alternatives, adaptations), record cool down activities (exercise name, reps, sets, duration, teaching points, alternatives, adaptations).

Notes

Use this area for notes and diagrams



UV20533

Instructing health related exercise and physical activity to children

It is the aim of this unit to develop the skills and knowledge you need to be able to deliver structured health related exercise and physical activity sessions for apparently healthy children in the 5-15 age range.

Level

2

Credit value

6

GLH

36

Observation(s)

2

External paper(s)

0



Instructing health related exercise and physical activity to children

Learning outcomes

On completion of this unit you will:

1. Be able to prepare children for exercise/physical activity
2. Be able to instruct exercise/physical activity to children
3. Be able to support children to take part in exercise/physical activity
4. Be able to bring an exercise/physical activity session to an end
5. Be able to reflect on providing health related exercise/physical activity for children
6. Understand the principles of instructing health related exercise/physical activity to children
7. Understand the principles of motivating children to adhere to exercise/physical activity

Evidence requirements

1. *Environment*
Evidence for this unit must be gathered in a real or realistic working environment.
2. *Simulation*
Simulation is not allowed in this unit.
3. *Observation outcomes*
Competent performance of 'Observation' outcomes must be demonstrated to your assessor on **at least two occasions**.
4. *Range*
All ranges must be competently demonstrated.
5. *Knowledge outcomes*
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
6. *Tutor/Assessor guidance*
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*
There is no external paper requirement for this unit.

Achieving observations and range

Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you will be required to produce other forms of evidence or asked questions to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved through oral questioning.

Your assessor will sign off an outcome when all criteria have been competently achieved.

Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation. Where this is not possible other forms of evidence may be produced. All ranges must be covered.

Your assessor will document the portfolio reference once a range has been competently achieved.



Observations

Outcome 1

Be able to prepare children for exercise/physical activity

You can:

- a. Help children feel welcome and at ease in the exercise environment
- b. Provide sufficient and appropriate resources for the session
- c. Follow the correct procedures for registering children's attendance
- d. Check children's level of experience, ability and physical/medical condition
- e. Confirm or revise plans in the light of new information*
- f. Explain the purpose and value of the exercises/physical activities, including the warm-up and cool down
- g. Explain the agreed exercises/physical activities, including physical and technical demands
- h. Provide clear information to children about the ground rules for behaviour and the reasons for these
- i. Advise children, parents and carers of the facility's emergency procedures

* May be assessed through oral questioning.

Observation	1	2	Optional
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Outcome 2

Be able to instruct exercise/physical activity to children

You can:

- a. Check that children are appropriately dressed for exercise/physical activity
- b. Develop and maintain an atmosphere of fun and enjoyment
- c. Prepare children for the session using safe and effective warm-ups
- d. Give explanations and demonstrations that are technically correct and appropriate to the needs and level of experience of children
- e. Communicate with children in a way that:
 - is appropriate to their needs
 - is fun
 - motivates them to take part
- f. Monitor that children take part in the session in a safe manner
- g. Keep to the planned timings for the session
- h. Use appropriate volume, pitch and voice projection according to the exercise/physical activity
- i. Provide cueing to enable children to work to the structure and phrase of the music, where relevant

*May be assessed through oral questioning.

Observation	1	2	Optional
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Outcome 3

Be able to support children to take part in exercise/physical activity

You can:

- a. Present a positive image of self and organisation to children
- b. Establish an effective working relationship with children
- c. Communicate with children in a way that makes them feel valued
- d. Use motivational styles appropriate to children and the exercise/physical activity format
- e. Give the children attention and motivation as appropriate to their needs
- f. Provide appropriate progressions and regressions
- g. Use appropriate methods to correct and reinforce technique, including:
 - changing positions
 - asking questions
 - making adaptations/offering alternatives
 - using verbal communications
 - using visual communications
- h. Build exercises/physical activities gradually as appropriate for children
- i. Manage children's behaviour throughout the session
- j. Provide guidance and feedback which is timely, clear and helps children achieve the objectives
- k. Adapt the exercises/physical activities to the changing needs of children during the session

* May be assessed through oral questioning.

Observation	1	2	Optional
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Outcome 4

Be able to bring an exercise/physical activity session to an end

You can:

- a. Allow sufficient time to end the session
- b. End the session using cool down activities that are safe and effective for children
- c. Provide motivational feedback on the session to children
- d. Provide children with the opportunity to:
 - think about the session
 - ask questions
 - provide feedback
- e. Follow the correct procedures for checking and dealing with any equipment used
- f. Leave the environment in a condition acceptable for future use

*May be assessed through oral questioning.

Observation	1	2	<i>Optional</i>
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Outcome 5

Be able to reflect on providing health related exercise/physical activity for children

You can:

- a. Review the outcomes of working with children, their feedback and feedback from other adults/carers
- b. Identify:
 - how well the exercises/physical activities met children's needs
 - how effective and motivational the relationship with the children was
 - how well the instructing style matched children's needs
- c. Identify how to improve personal practice*
- d. Explain the value of reflective practice*

* May be assessed through oral questioning.

Observation	1	2	Optional
Date achieved			
Criteria questioned orally			
Portfolio reference			
Assessor initials			
Learner signature			



Range

You must practically demonstrate that you have:

Instructed all components	Portfolio reference
Safe and effective warm-up	
Range of physical activities that are safe and appropriate (take account of growth and development)	
Cool down activities (safe and effective for children)	
Used all teaching methods	Portfolio reference
Effective group behaviour management	
Given appropriate explanations (to meet needs and experience of children)	
Demonstrations of exercises/movement (technically correct)	
Gradual building of exercises/movement	
Adaptation of exercises/movements	
Observation of participants (changing teaching position)	
Correction of poor technique	
Given regular teaching points	
Used all methods relative to the music, environment and class	Portfolio reference
Voice projection	
Volume and pitch of voice	
Used communication skills, incentives and rewards that meet all objectives	Portfolio reference
Appropriate to the needs of children	
Fun	
Motivating	

Developing knowledge

Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning.

Knowledge



Outcome 6

Understand the principles of instructing health related exercise/physical activity to children

You can:	Portfolio reference
a. Identify the safe and effective alignment for a range of health related exercises/physical activities for children	
b. Identify different methods of adapting health related exercise/physical activity to the needs of children	
c. Describe how to develop children's co-ordination by building exercises/movements up gradually	
d. Describe the principles of group behaviour management when working with children in the age range 5-15	



Outcome 7

Understand the principles of motivating children to adhere to exercise/physical activity

You can:	Portfolio reference
a. Explain why children need to take personal responsibility for their own fitness and motivation	
b. Identify the typical barriers to exercise/physical activity that children experience	
c. Describe strategies that can help children overcome these barriers	
d. Explain how incentives and rewards, appropriate to a range of children, can be used to strengthen motivation and adherence	
e. Explain how children's exercise/physical activity preferences can be used to strengthen motivation and adherence	
f. Describe how to assist children to develop their own strategy for motivation and adherence appropriate to their age	

Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

Outcome 1: Be able to prepare children for exercise/physical activity

Help children feel welcome and at ease:

Establish rapport, demonstrate equality, maintain professional conduct (dress, behaviour, respect), adopt a friendly and informal approach, demonstrate empathy, non-judgemental attitude.

Provide sufficient and appropriate resources:

Ensure equipment, environment and facilities are appropriate for their purpose and suitable and safe for the exercise/activity session, create an accessible and stimulating environment.

Correct procedures for registering children's attendance:

This is a mandatory requirement, a system in place for registering children/staff attendance on a session or daily basis, identifying hours/sessions of attendance, the name, home address, date of birth, emergency contact details of each child participating.

Check level of experience, ability, and physical/medical condition:

Pre-exercise screening form (PARQ), signed by the parent/carer, a verbal screening with all the children, any further information obtained and documented.

Confirm or revise plans: Discuss session content with the children, give them the opportunity to ask questions, amend session according to children's needs (pre-screening information) and preferences while maintaining the class description.

Purpose and value of exercises: Warm-up exercises (safe physiological and psychological preparation, reduce injury

risk, improve performance, neuromuscular pathways), cardiovascular exercises (improve health and efficiency of heart, lungs and vascular system), resistance exercises (develop muscular strength and endurance, muscular tone, improve bone density, reduce risk of osteoporosis, improve posture, improve joint stability), flexibility exercises (develop or maintain range of motion, reduce injury risk, improve posture), motor skill exercises (improve co-ordination, improve balance, improve speed and power, improve agility, improve reaction time, improve movement efficiency, improve functional movement), cool down exercises (safely return the body and mind to a resting state, develop static flexibility, improve range of movement, promote recovery from exercise).

Explain exercises/physical activity:

Rationale for exercises, purpose of exercises, physical and technical demands of exercises.

Provide information about the ground rules:

Explain the ground rules and guidelines at the beginning of the session, allow time for questions, ensure the group understand the reasons for these (health and safety, minimise risks).

Advise children, parents and carers of emergency procedures:

Fire procedure (location of fire exits, location of fire extinguishers, conduct for evacuation, location of meeting or assembly points, recording attendance), accident or medical emergency procedure (location of duty first aider, location of first aid kits), other



Outcome 1: Be able to prepare children for exercise/physical activity (continued)

advisory emergency information (location of nearest office and telephone), other health and safety information (environment and equipment hazards, manual handling of exercise equipment).

Outcome 2: Be able to instruct exercise/physical activity to children

Appropriate clothing: Ensure the children are appropriately dressed for the exercise/activity session, check environment where the session is taking place, correct footwear, layers of clothes that can be removed, jewellery, hair tied up.

Fun and enjoyment: Use the exercise/activities and group dynamics to develop/maintain an atmosphere, fun and enjoyable, maintain the motivation.

Warm-ups: Prepare the children for the session combining the three components (mobility, pulse raising, preparatory stretch), pace suitable to maintain interest while ensuring safety and effectiveness.

Give explanations and demonstrations: Appropriate to the exercise/activity session, the needs and level of experience of children, verbal explanations (technically correct, to correct poor technique, regular teaching points to meet individual/group needs, positive reinforcement, motivation), visual demonstrations of movements and techniques (technically correct and accurate, effective posture, safe and effective alignment of exercise positions, quality and clarity of movement, appropriate movement speed).

Communicate with children: Relay information (instructions, feelings, ideas) to

children appropriate to their level, needs, age group, ensure communication during the session remains fun and motivating, appropriate to the exercise/activity.

Monitoring children: Manage/observe the children at all times during the session, ensuring the session remains safe and effective, monitor the intensity of the exercise/activity using appropriate methods, talk test, rate of perceived exertion scale (RPE scale).

Planned timings: Keep to planned timings appropriate to the children's needs, to the environment (e.g. space, layout), number of participants, skill level and attention span.

Volume, pitch and voice projection according to the exercise/activity: Use appropriate methods of voice projection, use effective volume and pitch (audibility, clarity, suitability, ambience).

Cueing and phrase of the music: Verbally (voice instruction), visually (hand signals), demonstrations, exercise/activity matched to music's natural rhythm and changes in phrase.



Outcome 3: Be able to support children to take part in exercise/physical activity

Positive image of self and organisation to children: Adhere to an industry accepted Code of Ethical Practice' (rights, relationships, responsibilities, standards), remain professional, accept responsibility to the children participating in the session and to the organisation.

Effective working relationship with children: Work in partnership with parents/carers, school, individually and as a group, understand the barriers to participation and how to overcome them, understand the motivation for participation, explain the benefits of exercise/physical activity.

Communication with children: Necessary skills include listening, allowing time for explanation and discussion, clarifying conversations, understanding their point of view, using the appropriate vocabulary for the age of the child, including them in decision making when appropriate.

Motivational styles appropriate to children: Fun, engaging, appropriate to exercise format, positive reinforcement, voice, pitch and tone, reward motivation, goal motivation, intrinsic self motivation, peer motivation.

Attention and motivation as appropriate: Create an environment in which the children are engaged, motivated, interested, challenged, encouraged.

Appropriate progressions and regressions: Gather information to determine the children's skill level and fitness level, plan exercises/physical activities (easier/harder options, alternatives, adaptations) to accommodate different abilities/genders, identify activities needing adaptation, introduce adaptations to meet the needs of the children,

progress or regress activities (group needs and abilities, group size, equipment, environment), complexity of movement (exercise type, required motor skills and transitions), intensity of movements (speed, range of movement, resistance, repetitions, equipment, workout time, recovery time), resource implications of adaptations (new resources, adapt or modify use of resources).

Methods to correct and reinforce: Visual observation (safety, intensity, technique), monitoring exercise intensity (talk test, rate of perceived exertion), check for safe exercise performance without direct supervision, provide constructive support and feedback (verbal, visual), correct technique when appropriate (visual demonstration, tactile guidance, corrective verbal feedback and teaching points), awareness of learning styles and adaptations of teaching methods (offering alternatives, make adaptations), changes in teaching position (around room, amongst group), asking questions (ensure understanding and attention span, provide motivation).

Build exercises/physical activities gradually: Plan/provide time to ensure all children are able to follow the session content and structure, ensure all the session content/design can be broken down, teach/deliver in stages.

Manage behaviour: Create an environment that encourages and promotes good behaviour, respect individual children's level of understanding, use appropriate interventions.

Guidance and feedback with children: Use positive verbal communication (language, volume, pitch and tone),



Outcome 3: Be able to support children to take part in exercise/physical activity (continued)

demonstrate positive body language (hand gestures, eye contact, facial expressions), demonstrate active listening, maintain children's attention and motivation by reinforcing teaching points and objectives at regular intervals, give constant reassurance and approval of what they are doing.

Adaptation relating to the changing needs of children: Mix intensities during cardiovascular activities (rest periods,

breaks), monitor the amount of stretching during growth spurts (girls 12–13, boys 14–15), motor skills (younger children), adapt teaching methods to ensure the attention of the children throughout the session according to the changing needs and environment, exercise/physical activity should be adapted for the whole group (no one child is singled out).

Outcome 4: Be able to bring an exercise/physical activity session to an end

Allow sufficient time to end the session:

Allow sufficient time for cool down to meet needs (fitness levels, experience, individual needs, group needs), adapt cool down according to children's needs (level of fitness, level of skill, level of experience), adapt cool down according to environmental needs (temperature, space, time of day, intensity of session).

Use safe and effective cool down activities: Incorporate different exercises to gradually decrease intensity, maintenance stretching, developmental stretching, relaxation, revitalising suitable for children.

Give motivational feedback: Verbal feedback (reviewing, positive reinforcement, constructive, motivational), verbal feedback to the group (timely, clear, concise, fairly and equitably, general praise and reinforcement of performance strengths), verbal feedback to individuals (confidential, timely, clear and concise,

accurate, positive praise of specific performance strengths and progress).

Provide children with the opportunity to think and give feedback: Provide the opportunity for children to reflect on the session, own performance, own progress, instruction, enjoyment, satisfaction, allow time to ask questions (exercises, activities), give feedback (level, activities, fun, enjoyable).

Procedures for checking and dealing with equipment used: Follow the procedures for the facility your sessions are held in, ensure personal equipment is maintained and renewed.

Leave environment in acceptable condition: Environment (clean, hygienic, tidy, temperature, ventilation, and lighting), resources and equipment (clean, hygienic, removed and safely stored), report and record maintenance/faults (environment, equipment).



Outcome 5: Be able to reflect on providing health related exercise/physical activity for children

Review outcomes: Achieved goals, achieved objectives, achieved outcomes, children's feedback, adults and carers feedback (positive, negative).

Identify effectiveness: Exercises/ activities meeting children's needs (objectives, goals, safety, equipment), relationship with children (rapport, respect and trust, motivation, communication), instructing style to match children's needs (demonstrations and explanations, teaching, motivation).

Improve personal practice: Areas for personal improvement (planning, communication, demonstration, instruction), how to improve (personal action plans, personal goal setting, identify continuing professional development, further training, qualifications).

Value of reflective practice: Identify personal strengths, to identify personal areas for improvement, to improve professional practice and standards, to more effectively plan and deliver group exercise to music, to more effectively meet participants' needs.



Outcome 6: Understand the principles of instructing health related exercise/ physical activity to children

Safe and effective alignment for

exercise positions: Exercise positions (sitting, standing, bent over, lying prone, lying supine, inclined, declined), neutral spine (sitting, standing, lying), joint alignment, range of movement (avoid locking/hyperextension), postural cues (standing 'tall', neutral spine, weight bearing joints 'relaxed', head looking in a forward direction).

Methods of adapting health related exercise/physical activity for children:

Progression or regression (exercise/ physical activity mode, exercise order, number of exercises, repetitions, sequences, complexity of moves/ sequences, speed, propulsion moves, resistance, range of motion, level length, intensity, duration).

Developing children's co-ordination:

Start with basic movements, start with slow speed of movement, break the movements down into parts (add-on), gradually build up parts of exercises, movements, (layering) to whole movements and sequences that flow.

Principles of group behaviour

management: Establish rapport with children, parents/carers, use positive and confident communication, present a professional image, present clear aims for the induction, establish ground rules for the session (conduct), identify health and safety, maintain eye contact with the children, gather the group for explanations and demonstrations, minimise possible distractions, maintain motivation and stimulation (fun and creative), manage group practice within a limited and observable area, induct equipment types together.



Outcome 7: Understand the principles of motivating children to adhere to exercise/physical activity

Children's responsibility for their fitness and motivation: Encourage the child to explore the pros and cons of activity, how lifestyle changes can enhance health and wellbeing, promote self-responsibility and freedom of choice.

Typical barriers to exercise/physical activity: Lack of enjoyment, not having any fun, the child thinking they are not good at a particular sport/activity, other priorities (studying, homework, other sports or leisure activities), lack of support from parents/carers and other family members, no access to after school clubs, other clubs and organisations, lack of confidence.

Strategies to overcome barriers: Recognise and respect a child's view, remain empathetic, build a rapport that enables a child to feel comfortable and respected, the adult may not always be right and change is always possible, listen and allow time for questions and answers (open ended), reflect on the concerns, find solutions.

Appropriate rewards and incentives: Awards/certificates for attendance or achievement, badges, stickers, t-shirts, choice of the next game/activity, provide the child with an aim/goal or additional challenge.

Children's exercise/physical activity preferences: Use appropriate activities for different age groups, aged 5–11 games (tag, stuck in the mud), races or relays (throwing bean bags, jumping in and out of hoops, sprint ladders, tunnels), mix activities (walking, crawling, hopping, skipping, jumping, balancing), parachute games, imagery, aged 12+ circuit training, dance, step, combat, (themed classes),

less team orientated activity and more individual focus.

Assist children to develop their own strategy for motivation and adherence: Help them to understand the reasons for taking part in exercise/activity, identify the types of activity they enjoy and why, encourage confidence and self-responsibility and freedom of choice.