

SYLLABUS

Cambridge IGCSE®
Physical Education

0413

For examination in June and November 2016

Changes to syllabus for 2016

This syllabus has been updated. Significant changes to the syllabus are indicated by black vertical lines either side of the text.

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1. Introduction

1.1 Why choose Cambridge?

Recognition

Cambridge International Examinations is the world's largest provider of international education programmes and qualifications for learners aged 5 to 19. We are part of Cambridge Assessment, a department of the University of Cambridge, trusted for excellence in education. Our qualifications are recognised by the world's universities and employers.

Cambridge IGCSE® (International General Certificate of Secondary Education) is internationally recognised by schools, universities and employers as equivalent in demand to UK GCSEs. Learn more at www.cie.org.uk/recognition

Excellence in education

Our mission is to deliver world-class international education through the provision of high-quality curricula, assessment and services.

More than 9000 schools are part of our Cambridge learning community. We support teachers in over 160 countries who offer their learners an international education based on our curricula and leading to our qualifications. Every year, thousands of learners use Cambridge qualifications to gain places at universities around the world.

Our syllabuses are reviewed and updated regularly so that they reflect the latest thinking of international experts and practitioners and take account of the different national contexts in which they are taught.

Cambridge programmes and qualifications are designed to support learners in becoming:

- **confident** in working with information and ideas – their own and those of others
- **responsible** for themselves, responsive to and respectful of others
- **reflective** as learners, developing their ability to learn
- **innovative** and equipped for new and future challenges
- **engaged** intellectually and socially, ready to make a difference.

Support for teachers

A wide range of materials and resources are available to support teachers and learners in Cambridge schools. Resources suit a variety of teaching methods in different international contexts. Through subject discussion forums and training, teachers can access the expert advice they need for teaching our qualifications. More details can be found in Section 2 of this syllabus and at www.cie.org.uk/teachers

Support for exams officers

Exams officers can trust in reliable, efficient administration of exams entries and excellent personal support from our customer services. Learn more at www.cie.org.uk/examsofficers

Not-for-profit, part of the University of Cambridge

We are a not-for-profit organisation where the needs of the teachers and learners are at the core of what we do. We continually invest in educational research and respond to feedback from our customers in order to improve our qualifications, products and services.

Our systems for managing the provision of international qualifications and education programmes for learners aged 5 to 19 are certified as meeting the internationally recognised standard for quality management, ISO 9001:2008. Learn more at **www.cie.org.uk/ISO9001**

1.2 Why choose Cambridge IGCSE?

Cambridge IGCSEs are international in outlook, but retain a local relevance. The syllabuses provide opportunities for contextualised learning and the content has been created to suit a wide variety of schools, avoid cultural bias and develop essential lifelong skills, including creative thinking and problem-solving.

Our aim is to balance knowledge, understanding and skills in our programmes and qualifications to enable candidates to become effective learners and to provide a solid foundation for their continuing educational journey.

Through our professional development courses and our support materials for Cambridge IGCSEs, we provide the tools to enable teachers to prepare learners to the best of their ability and work with us in the pursuit of excellence in education.

Cambridge IGCSEs are considered to be an excellent preparation for Cambridge International AS and A Levels, the Cambridge AICE (Advanced International Certificate of Education) Group Award, Cambridge Pre-U, and other education programmes, such as the US Advanced Placement program and the International Baccalaureate Diploma programme. Learn more about Cambridge IGCSEs at **www.cie.org.uk/cambridgesecundary2**

Guided learning hours

Cambridge IGCSE syllabuses are designed on the assumption that learners have about 130 guided learning hours per subject over the duration of the course, but this is for guidance only. The number of hours required to gain the qualification may vary according to local curricular practice and the learners' prior experience of the subject.

1.3 Why choose Cambridge IGCSE Physical Education?

Universities and employers accept Cambridge IGCSE Physical Education as proof that candidates have knowledge, skills and an understanding of a range of relevant physical activities. Candidates' knowledge, skills and understanding come from studying both practical and theoretical aspects of Physical Education. Successful Cambridge IGCSE Physical Education students gain lifelong skills, including:

- an ability to plan, perform, analyse and improve, and evaluate physical activities
- knowledge, skills and understanding of a range of relevant physical activities
- an understanding of effective and safe performance
- an understanding of the role of sport and physical activity in society and in the wider world
- an excellent foundation for advanced study
- an enjoyment of physical activity

Prior learning

Candidates beginning this course are not expected to have studied physical education previously. However, candidates should have an interest and enjoy taking part in physical practical activities.

Progression

Cambridge IGCSE Certificates are general qualifications that enable candidates to progress either directly to employment, or to proceed to further qualifications.

Candidates who are awarded grades C to A* in Cambridge IGCSE Physical Education are well prepared to follow courses leading to Cambridge International AS and A Level Physical Education, or the equivalent.

1.4 Cambridge ICE (International Certificate of Education)

Cambridge ICE is a group award for Cambridge IGCSE. It gives schools the opportunity to benefit from offering a broad and balanced curriculum by recognising the achievements of learners who pass examinations in at least seven subjects. To qualify for the Cambridge ICE award learners are required to have studied subjects from five groups: two languages from Group 1, and one subject from each of the remaining four groups. The seventh subject can be taken from any of the five subject groups.

Physical Education (0413) falls into Group 5, Creative, Technical and Vocational.

Learn more about Cambridge ICE at www.cie.org.uk/cambridgesecundary2

The Cambridge ICE is awarded from examinations administered in the June and November series each year.

1.5 How can I find out more?

If you are already a Cambridge school

You can make entries for this qualification through your usual channels. If you have any questions, please contact us at info@cie.org.uk

If you are not yet a Cambridge school

Learn about the benefits of becoming a Cambridge school at www.cie.org.uk/startcambridge. Email us at info@cie.org.uk to find out how your organisation can register to become a Cambridge school.

2. Teacher support

2.1 Support materials

Cambridge syllabuses, past question papers and examiner reports to cover the last examination series are on the *Syllabus and Support Materials* DVD, which we send to all Cambridge schools.

You can also go to our public website at **www.cie.org.uk/igcse** to download current and future syllabuses together with specimen papers or past question papers and examiner reports from one series.

For teachers at registered Cambridge schools a range of additional support materials for specific syllabuses is available from Teacher Support, our secure online support for Cambridge teachers. Go to **<http://teachers.cie.org.uk>** (username and password required).

2.2 Resource lists

We work with publishers providing a range of resources for our syllabuses including textbooks, websites, CDs, etc. Any endorsed, recommended and suggested resources are listed on both our public website and on Teacher Support.

The resource lists can be filtered to show all resources or just those which are endorsed or recommended by Cambridge. Resources endorsed by Cambridge go through a detailed quality assurance process and are written to align closely with the Cambridge syllabus they support.

2.3 Training

We offer a range of support activities for teachers to ensure they have the relevant knowledge and skills to deliver our qualifications. See **www.cie.org.uk/events** for further information.

3. Assessment at a glance

The syllabus provides candidates with an opportunity to study both the practical and theoretical aspects of Physical Education. It is also designed to foster enjoyment in physical activity. The knowledge gained should enable candidates to develop an understanding of effective and safe physical performance.

All candidates take:

Component 1	Component 2
Paper 1 1 hour 45 min	Coursework Centre-based assessment
Section A: Candidates answer short answer questions on each of the three units: <i>Factors affecting performance; Health, safety and training; Reasons and opportunities for participation in physical activity.</i> Section B: Candidates answer three structured questions, one from each of the three units they have studied.	Candidates choose to undertake four practical activities from at least two of the seven categories listed (50% of total marks). Candidates must show the ability to analyse and improve practical performance in one of their four chosen practical activities (10% of total marks).
40% of total marks	60% of total marks

The grades available are A*–G. All components are available in the June and November series.

External Moderation

External moderation of internal assessment is carried out by Cambridge. Centres must submit candidates' internally assessed marks to Cambridge. The deadlines and methods for submitting internally assessed marks are in the *Cambridge Administrative Guide* available on our website.

Availability

This syllabus is examined in the June and November examination series.

This syllabus is not available to private candidates.

Detailed timetables are available from www.cie.org.uk/examsOfficers

Centres in the UK that receive government funding are advised to consult the Cambridge website www.cie.org.uk for the latest information before beginning to teach this syllabus.

Combining this with other syllabuses

Candidates can combine this syllabus in an examination series with any other Cambridge syllabus, except:

- syllabuses with the same title at the same level
- 5016 Cambridge O Level Physical Education

Please note that Cambridge IGCSE, Cambridge International Level 1/Level 2 Certificate and Cambridge O Level syllabuses are at the same level.

4. Syllabus aims and assessment objectives

4.1 Syllabus aims

Candidates should, through the knowledge they gain, develop an understanding of effective and safe physical performance.

Candidates should be encouraged to improve:

- their ability to plan, perform, analyse and improve, and evaluate physical activities;
- their knowledge, skills and understanding of a range of relevant physical activities.

4.2 Assessment objectives and their weightings

To pass Cambridge IGCSE Physical Education, candidates are assessed under the following objectives:

AO1: physical performance including an ability to inter-relate planning, performing and evaluating whilst undertaking activity.

AO2: an ability to analyse and improve their own and others' performance.

AO3: knowledge and understanding of:

- the factors affecting performance;
- the health and safety aspects of physical activity, including the advantages and risks associated with a range of training strategies and techniques;
- the reasons for participating in physical activity.

The following grid shows the weighting of the assessment objectives in the two components of the scheme of assessment:

Assessment Objectives	Components	
	Paper 1	Coursework
AO1	–	50%
AO2	–	10%
AO3	40%	–
Total	40%	60%

5. Description of components

5.1 Component 1: Paper 1

1 hour 45 minutes, 80 marks

The examination assesses candidates' knowledge and understanding in relation to the syllabus content. Candidates are required to demonstrate skills of description, interpretation and evaluation. The question paper has a weighting of 40% of the total marks and is divided into two sections.

Section A: Short answer questions on:

- Unit 1: Factors affecting performance
- Unit 2: Health, safety and training
- Unit 3: Reasons and opportunities for participation in physical activity

Section B: Three structured questions and differentiated questions, one on each unit:

- Unit 1: Factors affecting performance
- Unit 2: Health, safety and training
- Unit 3: Reasons and opportunities for participation in physical activity

5.2 Component 2: Coursework

The Coursework component requires candidates to offer a minimum of **four** practical activities from at least **two** of the seven categories. Each activity is marked out of 50 marks and the Analysing and Improving out of 10 marks. The practical activities are:

Categories	Practical activities	
Game Activities	<ul style="list-style-type: none"> • Association Football • Badminton • Basketball • Cricket • Goalball • Golf • Hockey • Netball 	<ul style="list-style-type: none"> • Rounders • Rugby Union • Softball • Squash • Table Tennis • Tennis • Volleyball
Gymnastic Activities	<ul style="list-style-type: none"> • Artistic Gymnastics (floor and vault) • Figure Skating (Individual) 	<ul style="list-style-type: none"> • Rhythmic Gymnastics • Trampolining
Dance Activities (max 2 dance styles)	<ul style="list-style-type: none"> • Educational Dance • Folk Dance • Historical Dance 	<ul style="list-style-type: none"> • Social Dance • Theatrical Dance
Athletic Activities	<ul style="list-style-type: none"> • Cross Country Running • Cycling 	<ul style="list-style-type: none"> • Track and Field Athletics • Weight Training for Fitness
Outdoor and Adventurous Activities	<ul style="list-style-type: none"> • Canoeing • Hill Walking and Campcraft or Hostelling • Horse Riding • Orienteering • Rock Climbing 	<ul style="list-style-type: none"> • Rowing • Sailing • Skiing • Snowboarding • Windsurfing
Swimming	<ul style="list-style-type: none"> • Competitive Swimming • Life Saving 	<ul style="list-style-type: none"> • Personal Survival
Combat Activities	<ul style="list-style-type: none"> • Judo 	<ul style="list-style-type: none"> • Karate

Coursework assesses candidates' physical performance, including an ability to interrelate planning, performing and evaluating whilst undertaking activity in four practical activities worth 50% of the syllabus total.

In addition candidates are assessed on their ability to analyse and improve their own or another's performance in one of their chosen practical activities, worth 10% of the syllabus total.

Therefore, in assessing practical activities, the following assessment objectives must be met (60% total weighting):

- Planning, Performing and Evaluating to account for 50%;
- Analysing and Improving to account for 10%.

Assessment will be conducted by the Centre and internally standardised by the Centre with moderation of video evidence by a Cambridge appointed Moderator.

Centres must consult the Cambridge IGCSE Physical Education Coursework Guidance Booklet (3rd edition), available from Cambridge's website www.cie.org.uk

NOTE

The assessment, including the production of video evidence, of candidates performing in practical activities is an integral part of the Cambridge IGCSE Physical Education course. In addition, candidates can be placed in physically demanding situations when taking part in practical activities.

It is the responsibility of the Centre, through the Head of Physical Education or equivalent, to ensure that:

- candidates are capable of taking part in practical activities; if there is any doubt then medical advice should be sought;
- the health and safety of candidates is paramount and is maintained at all times when candidates are engaged in practical activities as part of this course;
- the necessary facilities and equipment are available and safe for each activity that candidates take part in;
- they oversee the assessment process and that there is effective internal standardisation across the Centre's assessments and all the staff involved in the assessments, including off-site activities;
- the DVD video evidence is sufficiently comprehensive and in the correct format (single layered DVD, viewable in Windows Media Player or Quicktime) to enable external moderation to take place efficiently.

Centres should always follow best practice in conducting practical activities. One textbook that Centres may find helpful is *Safe Practice in Physical Education and School Sport* (2008), ISBN 978-1905540549, produced by the Association for Physical Education.

6. Syllabus content

The following areas of study are designed to contribute to the development of understanding and knowledge of the principles involved in safe, health-related exercise. All these sections are inter-related.

Unit 1: Factors affecting performance

Candidates should develop knowledge and understanding of:

1 Skill

- Definition of skill.
- Types of skill: basic and complex, fine and gross motor skills, open and closed continuum.
- Factors affecting variations in skill level: age and maturity, motivation, anxiety, arousal conditions, facilities, environment, teaching and coaching.
- Simple information processing model: what is meant by the terms input, decision making, output, feedback.
- Types of feedback: intrinsic, extrinsic, knowledge of performance, knowledge of results.
- The importance of feedback.
- How you learn a new skill; considerations – limited channel capacity, overload, only do a little, instructions should be simple, demonstration should be simple. When you first do movement it goes into short term memory. Practice – movement goes into long term memory.

2 Motivation and mental preparation

- Meaning of motivation.
- Types of motivation:
 - intrinsic and extrinsic,
 - rewards and incentives.
- Arousal and performance; how one is affected by the other.
- Physiological responses of the body to arousal:
 - production of adrenaline,
 - increased heart rate,
 - increased respiration,
 - muscles tense in readiness for action.
- Inverted U Theory (Yerkes-Dodson Theory).
- Causes of over-arousal.
- Causes of decline in performance; anxiety.
- Need for relaxation and visualisation.
- Goal setting – SMARTER (specific, measurable, agreed, realistic, time-phased, exciting, recorded). As a means of controlling anxiety.
- Mental rehearsal.

3 Skeleton and joints

- The four major functions of the skeleton:
 - shape and support,
 - movement,
 - protection,
 - blood production.
- Examples of major bones of the body to highlight these functions.
- Relevance to performance and participation in physical activity.
- Examples of different types of joints:
 - fixed or immovable joints/fibrous joints,
 - slightly movable joints/cartilaginous joints,
 - freely movable joints/synovial joints.
- Describe the components of each type of joint.
- Describe the range of movements which includes:
 - flexion, extension, rotation, abduction and adduction.
- Ligament, cartilage and synovial fluid problems.

4 Muscles and tendons

- How muscles and their composition, function and action, affect movement and performance: fast twitch for power and strength activities, slow twitch for endurance activities.
- How activities and exercise affect the composition and efficiency of muscles, focusing on:
 - deltoid,
 - trapezius,
 - pectorals,
 - biceps,
 - triceps,
 - latissimus dorsi,
 - abdominals,
 - gluteals,
 - quadriceps,
 - hamstrings,
 - gastrocnemius.
- How improved muscle functioning can improve performance and participation in physical activities.
- The role of antagonistic pairs, prime movers and synergists during a range of physical activities, using examples from the muscles listed above.
- The role and function of tendons during movement.

5 Circulatory and respiratory systems

- Components of blood and the functions of plasma, red cells, white cells, platelets.
- The role of haemoglobin in red blood cells.
- How red blood cells are affected when people live at altitude.
- Illness/conditions that result from an imbalance in blood cells, e.g. haemophilia, anaemia, and the effect this could have on a person's ability to participate in sports.
- How the circulatory and respiratory systems affect performance and participation levels:
 - lactic acid and oxygen debt tolerance,
 - duration of activity,
 - recovery rate.
- How activity and exercise develop and affect the efficiency of the circulatory and respiratory systems:
 - stronger heart muscle,
 - increased stroke volume and cardiac output,
 - lower resting heart rate,
 - more efficient gaseous exchange,
 - increased vital capacity,
 - tidal volume,
 - oxygen debt tolerance.
- The difference between aerobic and anaerobic work and the effect of lactic acid production on performance, with examples from specific physical activities.

6 Fitness

- Simple definition of fitness.
- Components of fitness; measurement and explanation, with example, of each of the following.
 - Health related fitness:
 - cardio-vascular endurance (aerobic fitness),
 - body composition,
 - flexibility,
 - muscular endurance,
 - speed,
 - stamina,
 - strength.
 - Skill related fitness:
 - agility,
 - balance,
 - co-ordination,
 - speed of reaction, timing.
- Health related exercise programme.
- Tests of cardio-vascular fitness:
 - 12 minute run (Cooper Test),
 - Multi Stage Fitness Test.

- Factors which affect fitness.
- Fitness, graphs/charts/data; understanding, dissemination of information.
- Maximum oxygen uptake (VO_2 max.) as a measurement of cardio-vascular fitness.
- Plan a health-promoting exercise programme; considerations, involve FITT (frequency, intensity, time, training activity).

7 Physique

- Understand the term physique.
- Three extreme body types:
 - Endomorph – fat – degree of fatness,
 - Mesomorph – muscular – degree of muscularity,
 - Ectomorph – thin – degree of linearity.
- Examples of each body type, from different sports.
- Advantages of certain body types for certain sports e.g.:
 - gymnast,
 - high jumper,
 - rugby prop forward.

8 Drugs

- Definition – any chemical introduced to the body which affects how the body works.
- Doping; term used to improve performance by taking drugs.
- Reasons why sports persons take drugs.
- Types of drugs identified as performance enhancing and banned by the International Olympic Committee:
 - stimulants,
 - narcotic-analgesics,
 - anabolic agents,
 - diuretics,
 - anxiety reducing drugs,
 - peptide hormones and analogues,
 - drugs subject to certain restrictions: alcohol, marijuana, beta blockers.
- Types of drugs and their reactions on the body.
- Blood doping.
- Other drugs, which may be socially accepted:
 - smoking: dangers and the long-term effects,
 - alcohol: dangers and the long-term effects.

Unit 2: Health, safety and training

Candidates should develop knowledge and understanding of the principles of:

1 Health

- World Health Organisation (WHO) definition of health – a state of complete physical, mental and social well-being.
- Physical well-being:
 - all body systems work well,
 - free from injuries and illnesses,
 - able to carry out everyday physical tasks.
- Mental well-being:
 - able to cope with stress,
 - can control emotions,
 - feel good about yourself.
- Social well-being:
 - have essential human needs, food, clothing and shelter,
 - have friendship and support,
 - have some value in society,
 - able to mix with others.
- Health and fitness:
 - need for a healthy lifestyle,
 - need to eat a balanced diet,
 - need to take regular exercise,
 - need to avoid drugs and pollution.

2 Diet

- The body needs nutrients for energy, growth and repair of cells. These nutrients are proteins, carbohydrates, fats, vitamins and minerals. Also water and fibre.
- Consider proteins, carbohydrates, fats, vitamins, minerals, water and fibre; why they are important in the diet, examples of sources in food, if and why they are useful sources of energy.
- Different energy requirements:
 - teenagers need more energy than young children,
 - males tend to need more energy than females,
 - athletes need more energy than non-athletes,
 - people with active lifestyles need more energy than people with non-active lifestyles.
- Energy balance; daily energy food intake needs to balance daily energy need.
- Unused energy is stored as fat. Person risks becoming obese.

3 Games: Safe practice

- Schoolteachers have a responsibility to ensure that Physical Education activities are undertaken in a safe and secure environment.
- Some activities are exciting because they are challenging and there is an element of risk.
- Participants need to:
 - be aware of the correct clothing and safety equipment to be used,
 - know how to check and handle equipment,
 - know safety arrangements,
 - know how to assist and support other pupils,
 - adhere to a code of behaviour,
 - recognise the need to warm up and cool down after exercise,
 - be able to give examples of the above in a practical situation.
- Safety rules and regulations. These will differ from activity to activity.
- Participants should be able to outline the safety arrangements, potential dangers, rules and regulations in one activity/game from each of the seven categories of activities.

4 Injuries

- Minor injuries are an acceptable part of playing sport. More serious injuries are less acceptable and may be avoided.
- Prevention of some injuries may be possible if the participant
 - warms up and cools down correctly,
 - uses the correct equipment,
 - knows the rules and regulations,
 - checks if the surface and facilities are safe to use,
 - does not participate when tired,
 - ensures that a teacher is always present.
- Types of injuries. Can vary from simple to very severe.
- Simple treatment for the following:
 - winding,
 - simple cut or graze,
 - blisters,
 - bruises,
 - muscle, tendon and ligament injuries.
- RICE (Rest + Ice + Compression + Elevation)
- Causes of injuries are many and varied but mainly:
 - impacting with ground or hard surface,
 - impacting with another person,
 - sudden or twisting movement,
 - environment (hot or cold, wet or dry),
 - lack of preparation; warm up, cool down,
 - inadequate clothing/body protection,
 - not following instructions.

5 Exercise and training

- Exercise is an important component of a healthy lifestyle.
- Exercise has physical, mental and social benefits.
- Exercise works on all the body systems.
 - Movement occurs when muscles contract.
 - Muscles obtain energy from food. Some glucose is stored in the muscles and liver as glycogen.
- Cells get energy from glucose in the process called respiration.
- Aerobic respiration uses oxygen to release energy:
 - $\text{glucose} + \text{oxygen} \rightarrow \text{energy} + \text{carbon dioxide} + \text{water}$
- When aerobic exercise occurs
 - muscles contract and some energy is used,
 - muscle contractions release heat – warm up,
 - carbon dioxide is excreted by the lungs.
- Need aerobic exercise when one exercises over a lengthy period of time. Examples of type of exercise.
- Anaerobic respiration occurs without oxygen:
 - $\text{glucose} \rightarrow \text{energy} + \text{lactic acid}$
- When anaerobic exercise occurs:
 - less energy is produced than in aerobic respiration,
 - excess lactic acid causes pain and fatigue. Muscles are less efficient and eventually stop working.
 - lactic acid is removed by breathing in more oxygen. This extra oxygen at the end of anaerobic exercise is called oxygen debt.
- Anaerobic respiration is used for short periods of intense exercise.
- Examples of aerobic and anaerobic exercises.
- Training is a programme and a procedure used to improve performance.
 - Training principles are:
 - Specificity,
 - Overload,
 - Progression,
 - Reversibility.
 - The effects of too much exercise through over-training.
 - Training methods; explanation of different types and their benefits.
 - Circuit training – explanation of different types and exercises.
 - Weight training (strength training) – a method of training using weights.
 - Training can be:
 - Isotonic (Dynamic) – involves muscle shortening. Examples, advantages and disadvantages.
 - Isometric (Static) – muscles contract but stay the same length. Examples, advantages and disadvantages.
 - Plyometrics – alternative method of power training.
 - Fartlek training – method of training which improves aerobic and anaerobic energy systems.
 - Example of this type of Fartlek training.
 - Used in a variety of sports, e.g. cycling and skiing.
 - Advantages and disadvantages.

- Continuous training – a method of training which requires participants to run, swim, cycle periods of time.
 - Advantages and disadvantages.
- Resistance training – a method of training which requires athletes to work against a load (resistance).
 - Advantages and disadvantages.
- Interval training – a method of training which involves periods of fast work and periods of recovery (slow work or rest). The recovery period enables the lactic acid in muscles to be removed.
 - Advantages.
- Effect of exercise on the heart, circulatory and respiratory systems.
 - Response of the heart; measurement of heart rate per minute:
 - stroke volume and cardiac output
 - $\text{cardiac output} = \text{stroke volume} \times \text{heart rate}$
 - Responses of the circulatory system
 - Responses of the respiratory system
 - $\text{minute volume} = \text{tidal volume} \times \text{respiratory rate}$
 - examples of breathing changes with exercise
 - How the body controls body temperature.
 - Training effects of exercise on the major organ and systems of the body, especially the heart, the circulatory system, the respiratory system and the skeletal muscles.

Unit 3: Reasons and opportunities for participation in physical activity

Candidates should develop knowledge and understanding of the principles of:

1 Leisure and recreation

- Leisure time – the free time a person has when not working or sleeping.
- Factors which determine what people do during leisure time:
 - their age,
 - interests,
 - social circumstances,
 - facilities available,
 - where people live.
- Determinants of the growth in leisure activities:
 - advances in technology (in the work place) resulting in
 - people working shorter days,
 - having longer holidays,
 - more unemployed.
 - improvements in health care, people live longer,
 - growth in leisure time activities,
 - growth in facilities.
- Recreation is any voluntary activity a person might do during leisure time.
- Physical recreation is any physical activity a person may choose to do during leisure time.
- Reasons why people choose recreational activities.
- Role and aims of local sports clubs.
- Why clubs find the role of the volunteer essential.
- Roles within a club may be Secretary, Treasurer, Chairperson, Fixtures/Membership Secretary, Coach.
- How schools can support participation at all levels.
- Role that schools play through lessons, examinations and extracurricular activities to promote participation.

2 Facilities, participation, excellence

- Facilities for physical activities vary depending on where people live.
 - Urban areas may have leisure centres, sports stadiums, specialist sports clubs.
 - Rural areas and remote areas are unlikely to have purpose built sports facilities but may have natural facilities for such activities as sailing, hill walking, rock climbing, etc.
- Sport and recreation facilities may be controlled and run by
 - local authorities,
 - private companies,
 - voluntary organisations.
- Local authorities normally own sports facilities but do not always run them.
 - Companies compete for chances to run the facilities.
 - Dual use facilities are often school sports facilities which are also used by the local community.
- Private companies run sports facilities as a business in order to make a profit. These might be golf clubs, theme parks or holiday activity centres.

- Voluntary organisations tend to cater for a local need. For example:
 - local scout and youth groups,
 - places of worship, e.g. churches,
 - large national charities, e.g. the Youth Hostels Association.
- The location of sports facilities; main considerations.
- Facilities catering for different groups; identify the groups.
- Types of sports centres; range of activities and people they cater for.
- Factors which encourage people to take part in physical activities.
- Factors which determine excellence in sport.
- Sponsorship – business provides financial support for an athlete, team or event/competition.
 - Advantages and disadvantages to a sponsor.
 - Advantages and disadvantages of sponsorship to the sport.

3 Global events

- The impact of global events on participation, e.g. Olympic Games, Football World Cup.
- advantages and disadvantages of being the host nation:
 - the development of facilities.
 - the development of training facilities.
 - how coaching systems are developed to ensure a high level of success, particularly for the host nation.
- Social impacts of global events on a host nation.
- Why both professionals and amateurs compete in the Olympic Games.
- How education supports participation at the highest level through scholarships, sports colleges, trust funds.
- The reasons why certain countries develop excellence in specific sports. Reasons should include geographical, climatic, financial, traditional and cultural.
- Identify certain countries and the sports in which they excel in.
- Examples could include:
 - Kenya/Ethiopia – middle/long distance running,
 - Brazil – football,
 - Nordic/alpine countries – skiing,
 - Fiji – rugby sevens,
 - New Zealand – rugby,
 - Japan – sumo wrestling,
 - Cuba – boxing.

4 Media

- Types of media – television, radio, books, newspapers, magazines, internet.
- Positive influence of the media coverage:
 - promotes sport,
 - more people can see, hear, and read about sport,
 - creates 'sports stars' which can have positive and negative effects on youngsters,
 - can inform and entertain,
 - if seen on television, sports can attract sponsorship, improving facilities, training and equipment.

- Drawbacks of media coverage:
 - more pressure on managers and teams to do well,
 - players adopt a 'win at all cost' attitude rather than playing for enjoyment,
 - some may resort to cheating or the use of drugs,
 - sports stars have less privacy due to media attention,
 - the media may demand changes in the law/rules of some sports,
 - media may become very critical of referees'/officials' decisions.
- Impact of television on sport:
 - sport occupies a large percentage of viewing time,
 - television allows viewers to see the biggest competitions in the world,
 - event/match analysis allows the viewer to see the events in great detail e.g. slow motion replays,
 - TV companies contribute to event prize money,
 - colour TV allows some sports to be seen which were not possible with black and white TV, e.g. snooker, bowls,
 - TV companies often decide, due to their financial support, which sports will be shown,
 - minority sports; positive and negative effects.

5 Access to sport

- General availability of sport to all; some elements are common to all three headings below (e.g. women-only swimming sessions both develop sporting/recreational opportunities for women, and may also provide the only access to sport for women in some communities because of religious beliefs).
- Campaigns and legislation to create equal opportunity.
 - Athletes with disability:
 - rapid expansion in participation in disability sport, wider variety of activities available in schools and greater willingness to adapt sports to meet people's needs;
 - improvement in facilities, both for those taking part and spectators;
 - increase in number of coaches available, and in the number of coaches specialising in working with athletes with disability;
 - open competitions, e.g. shooting, archery, creation of competitions where able-bodied athletes and athletes with disability may enter as a pair, e.g. European Dance Championships;
 - Disability Games alongside able-bodied;
 - greater social acceptability of people with disabilities;
 - increase in number of role models who are also developing media roles in presenting their sport.
 - Gender:
 - women encouraged to take part in sport;
 - money for facilities, growth in popularity of certain activities targeted at women, e.g. step aerobics, swing into shape, emergence of role models;
 - recognition that women can compete in events which, in the past, were considered too strenuous for women, e.g. marathon, triple jump, pole vault;
 - men and women competing on equal terms, e.g. equestrian sport.

- Social equality:
 - the role of local community groups in developing traditional sports and activities for ethnic minority groups;
 - the role of local groups in developing a sense of social inclusion through sporting activity programmes (may also apply in the case of athletes with disability);
 - cultural attitudes, the relaxation of certain conditions to allow participation for certain cultures;
 - affordable sports.

7. Component 2: Coursework

Component 2 (Coursework) assesses candidates' physical performance. It assesses their ability to inter-relate planning, performing and evaluating while undertaking practical activities. Component 2 also assesses candidates' ability to analyse and improve their own or another person's performance.

Practical activities are physically demanding for candidates. The Head of Physical Education or equivalent is responsible for the health and safety of candidates when they are taking part in the practical activities as part of this course.

Centres must refer to the Cambridge IGCSE Physical Education Coursework Guidance Booklet (3rd Edition).

7.1 General requirements for practical activities

Cambridge IGCSE Physical Education candidates should be continuously involved in the process of planning, performing and evaluating.

The teaching of Physical Education at all levels has the following requirements.

1. To promote physical activity and healthy lifestyles, teach candidates:
 - to be physically active;
 - to adopt the best possible posture and the appropriate use of the body;
 - to engage in activities that develop cardiovascular health, flexibility, muscular strength and endurance;
 - the increasing need for personal hygiene in relation to vigorous physical activity.
2. To develop positive attitudes, teach candidates:
 - to observe the conventions of fair play, honest competition and good sporting behaviour as individual participants, team members and spectators;
 - how to cope with success and limitations in performance;
 - to try hard to consolidate their performance;
 - to be mindful of others and the environment.
3. To ensure safe practice, teach candidates:
 - to respond readily to instructions;
 - to recognise and follow relevant rules, laws, codes, etiquette and safety procedures for different activities or events, in practice and during competitions;
 - about the safety risks of wearing inappropriate clothing, footwear and jewellery and why particular clothing, footwear and protection are worn for different activities;
 - how to lift, carry, place and use equipment safely;
 - to warm up for, and recover from, exercise.

7.2 Specimen practical activities and their assessment

This section of the syllabus contains an example of one activity from each of the seven categories. The examples covered in this section are Badminton, Artistic Gymnastics (floor and vaults), Educational Dance, Track and Field Athletics, Hill Walking and Campcraft or Hostelling, Competitive Swimming and Combat Activities. You should refer to the Cambridge IGCSE Physical Education Coursework Guidance Booklet (3rd Edition) for the criteria for assessing each of the practical activities.

Category 1: Game Activities

Badminton

Candidates should demonstrate knowledge and understanding in order to:

- play the full recognised version of a competitive game and to undertake a variety of roles, for example, performer, coach, official;
- use increasingly advanced strategies and tactics of competitive play and adapt these to the strengths and limitations of other players;
- perform increasingly advanced techniques in a game of Badminton and know how to improve performance;
- co-operate with others in regular practice in order to refine their technique;
- implement the rules of Badminton including those governing specific competitions;
- extend their knowledge, understanding and performance.

Badminton assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a detailed understanding of the rules and regulations for highly successful play in both singles and doubles games; • a very good understanding of tactics with the ability to plan strategies appropriate to all phases of the game; • an ability to select the best shots to play in practice and match situations and produce very good attacking strokes with control, consistency and accuracy.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a good understanding of the rules and regulations for successful play in both singles and doubles games; • a good understanding of positions, roles and conditions of play and the knowledge to use them to advantage in a game; • an ability to select and use the correct strokes effectively in both practice and game situations, in singles and doubles, and produce good attacking strokes; • an ability to apply tactics successfully to overcome opponents' weaknesses.
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a sound understanding of the rules and regulations for successful play in both singles and doubles games; • a sound understanding of positioning and specific role awareness; • an ability to make sensible choices when choosing the best shot and understand the principle of attacking space; • an ability to execute a variety of shots in a game situation; • an ability to apply simple tactics with a measure of success in a game situation.

Marks	Description
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a basic understanding of the rules/regulations in order to play a recognised version of the game; • an ability to organise him/herself and others well for a practice game; • an ability to make appropriate simple choices in an attempt to outwit opponents; • an ability to execute basic shots with a reasonable amount of control in a practice game, without the ability to prolong a rally or play attacking strokes; • an awareness of simple tactics to overcome opponents' weaknesses at a basic level.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a limited understanding of the rules/regulations of the game; • a limited ability to organise him/herself and others in order to improve simple techniques in practice; • a limited ability to select the appropriate shots in order to return the shuttlecock; • a limited ability to execute the basic shots in a passive situation.

Category 2: Gymnastic Activities

Artistic Gymnastics (floor and vaults)

Candidates should demonstrate knowledge and understanding in order to:

- plan and implement a training schedule relevant to the gymnastic activities undertaken;
- perform increasingly advanced techniques and know how to improve performance;
- apply the principles, rules and criteria for evaluating performance;
- extend their gymnastic ability.

Artistic Gymnastics (floor and vault) assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a detailed knowledge of the principles, rules and regulations as they apply to practices and competitions; • an ability to plan in fine detail a complex sequence of movements involving advanced techniques and incorporate them into an effective training schedule; • an ability to perform: <ul style="list-style-type: none"> a sequence of at least 8 different linked floor movements requiring a high degree of gymnastic skill. At least 3 of the movements will be forward and/or backward rotational movements. The whole sequence will show good body positions, control, flow and balance; at least 4 different vaults over apparatus in different positions; movements will show very good preparation, approach, take-off, control in flight and landing as well as correct body position throughout.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a detailed knowledge of the principles, rules and regulations; • an ability to plan a complex sequence of movements involving advanced techniques and incorporate them into an effective training schedule; • an ability to perform: <ul style="list-style-type: none"> a sequence of at least 8 different linked floor movements requiring effective control, balance and flow throughout. Three of the movements will be rotational movements and all should show clear body positions; at least 3 different vaults over apparatus in different positions; movements should show approach, flight, control and landing to a good standard.
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a sound knowledge of the principles, rules and regulations; • an ability to plan a complex sequence of movements and incorporate them into a training schedule; • an ability to perform: <ul style="list-style-type: none"> a sequence of at least 8 different linked floor movements requiring control, balance, transfer of weight, flow and clear body positions; two different vaults requiring a good measure of speed, balance and control over the apparatus and on landing.

Marks	Description
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a basic knowledge of some of the principles, rules and regulations; • an ability to plan a basic sequence of movements and incorporate them into an imaginative training schedule; • a basic ability to perform: <ul style="list-style-type: none"> a sequence of at least 6 different linked floor movements requiring balance, flow and some transference of weight; two vaults requiring a distinct measure of control.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a limited understanding of some of the principles, rules and regulations of gymnastics; • an ability to plan a simple sequence of basic movements and incorporate them into a simple training schedule; • a limited ability to perform: <ul style="list-style-type: none"> a simple sequence of at least 6 different linked movements; a simple vault over a box.

Category 3: Dance Activities

Educational Dance

Candidates should perform in an Educational Dance and show an understanding of the following:

- The technical and expressive nature of dance skills through the performance of short and complete dances. The length of the dances should be between 2 minutes 30 seconds and 3 minutes.
- Elements of dance composition; improvisation and selection of movement content; relationship and clarity of constituent parts (unit, proportion, balance); shaping of material into coherent form (motif, development, repetition, variation, contrast, climax, logical sequence).
- A range of stimuli (music, words, percussion); visual (pictures, sculptures); tactile (fabric); kinaesthetic (based on movement itself, e.g. flight, jumps); ideational (stories, poetry).
- Ways in which dance can be described, interpreted and evaluated. This would include both the candidate's own dances and those of other choreographers.
- Features of movement, dancers, set, costume accompaniment, the ways these inter-relate; structure and form of the dance; the use of choreographic devices (compositional skills).

Educational Dance assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to distinguish, compose and apply advanced skills, techniques and ideas consistently showing high standards of precision, control, fluency and originality; • the ability to show initiative and originality in composing dances and employ advanced choreographic principles and demonstrate a good understanding of choreographic form; • the ability to take a number of roles in a group and show some planning and leadership skills; • a detailed understanding of the role of rules and conventions of dance.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to compose and perform a wide range of technical and expressive skills separately and in combination; • the ability to compose dances that effectively combine physical, formal and expressive elements to communicate the ideas; • the ability to plan and implement warming up and cooling down activity dance exercises that effectively take in the needs of conditioning; • a detailed understanding of the role of rules and conventions of dance.
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to compose and perform with technical competence and show sensitivity to the accompaniment and communicate the choreographic intention; • the ability to employ a range of choreographic devices, structure dances into logical form and select material that has rhythmic, dynamic and spatial interest, and demonstrate a sound knowledge of safe practice in dance and of movement principles underpinning specific dance techniques; • the ability to prepare themselves and others effectively for participation in the activities and for improved performance, selecting and implementing safe exercise, warm up and cool down programmes; • a sound understanding of the role of rules and conventions of dance.

Marks	Description
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • sound performance skills in a range of styles; • the ability to use a variety of compositional principles to convey a range of dance ideas and work on their own and with others to devise, rehearse and present dances; • the ability to plan and implement appropriate warming up and cooling down activities with support and direction, and perform exercises safely; • a basic understanding of the role of rules and conventions of dance.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to use simple compositional principles with help: they may also need support in devising and presenting dances. They find dance styles challenging to perform; • the ability to attempt to use appropriate terminology to comment on their own and professional dance works and attempt to support their views; • the ability to have some sense of what they need to do to warm up and cool down; • some understanding of the role of rules and conventions of dance.

Category 4: Athletic Activities

Track and Field Athletics

Candidates should demonstrate knowledge and understanding in order to:

- plan, carry out and evaluate an effective training schedule for selected events;
- perform increasingly advanced techniques in selected events and know how to improve performance;
- apply the strategies and tactics in their chosen events;
- extend their personal capabilities and evaluate performance in the selected events;
- extend their athletics ability.

Track and Field Athletics assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to distinguish and apply advanced skills, techniques and ideas consistently showing high standards of precision, control, fluency and originality; • the ability to perform in three events in athletics (no more than two from any one group) showing very good technique and consistently high standards of control and fluency, and where appropriate power, speed and stamina (for boys, 245 points, for girls, 200 points); • the ability to draw from their understanding of tactics to outwit the opposition in competitions and adopt a leading role within a group or team; • a thorough understanding of the role of rules and conventions of the activity.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to select and combine advanced techniques, adapt these to the demands of the athletic activity and modify their technique in the light of changing circumstances, and where appropriate showing speed, power and stamina (for boys, 205 points, for girls, 165 points); • the ability to analyse and judge the effectiveness of their own and others' performance showing an understanding of the relationship between technique, fitness, tactics and quality performance; • the ability to show good understanding of the need to warm up and cool down using a good range of ideas and carry them out thoroughly; • a detailed understanding of the role of rules and conventions of the activity.
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • the ability to perform fluently and with confidence in at least three events in athletics showing the relationship between fitness, technique and strategy (for boys, 165 points, for girls, 130 points); • the ability to adapt and modify their technique as a result of analysis of both their own and others' performance, and use tactics effectively; • the ability to carry out specific roles in a team effectively and show how to warm up and cool down effectively using own ideas; • a sound understanding of the role of rules and conventions of the activity.

Marks	Description
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> the ability to perform with good sound technique in a limited number of athletics events (for boys, 125 points, for girls, 90 points); the ability to appreciate the different fitness demands in a variety of events/exercises and use basic tactics; the ability to draw on ideas given to them in order to warm up and cool down safely; a basic understanding of the role of rules and conventions of the activity.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> the ability to perform the basic requirements of various events (for boys, 85 points, for girls, 60 points); the ability to attempt to master technical aspects of events; the ability to plan a training programme with assistance and understand the benefits of effective warm up and cool down and attempt to improve their ability by observing and copying other pupils' performance; some understanding of the role of rules and conventions of the activity.

Category 5: Outdoor and Adventurous Activities

Hill Walking and Campcraft or Hostelling

Candidates should demonstrate knowledge and understanding in order to:

- prepare for and undertake a journey safely in an unfamiliar environment;
- develop their own ideas for creating challenges for others;
- use increasingly complex techniques and the safety procedures appropriate to the activity undertaken;
- appreciate the effects of nutrition and climatic conditions on the body, through the activity undertaken, and be aware of, and respond to, changing environmental conditions;
- extend their knowledge, understanding and ability.

Hill Walking and Campcraft or Hostelling assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a very thorough knowledge of a range of equipment used in this activity, how to use it and look after it; • an ability to plan in consultation with others, and in great detail, an expedition over two days, with nights spent at different sites/hostels, over a total distance of between 24–28 miles/40–45 km; • an ability to interpret map information in detail and to navigate safely with great accuracy along undefined footpaths in an unfamiliar area; • an ability to assess situations and, after consultation, take a sensible and appropriate course of action; • an ability to apply advanced techniques; • an ability to note the effects of nutrition and climatic conditions on the body, be aware of the effects the conditions might be having on others and take the most sensible course of action.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a detailed knowledge of equipment required and how to use it on an expedition; • a detailed knowledge of route and equipment planning in readiness for a two day expedition over a distance of 24–28 miles/40–45 km using different sites/hostels; • an ability to interpret map information and to navigate safely with considerable accuracy along well trodden footpaths in an unfamiliar area; • an ability to assess situations and take appropriate and sensible courses of action; • an ability to apply advanced techniques such as navigating accurately with a compass; • an ability to seek out and interpret all useful information in order to use it for the success of the venture; • an ability to understand and respond to the body's needs/responses as a result of the demands of the weather and exercise to ensure an accurate temperature and nutritional balance.

Marks	Description
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • an ability to plan for an expedition noting the basic requirements; • a sound knowledge of route and equipment plans in readiness for a two day expedition over a distance of 16–20 miles/25–30 km; • an ability to map read and navigate occasionally with consultation with others, with only minor errors along well trodden footpaths safely in an unfamiliar area; • an ability to use basic techniques such as map setting with a compass, without guidance; • route planning using Naismith's Rule without guidance; • meal preparation; • an ability to collect all useful information in advance of the venture and discuss any implications; • an ability to observe all the rules as they apply to the countryside, campcraft and safety; • a sound understanding of the body's needs/responses to exercise and weather conditions.
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a basic knowledge of equipment, its uses and how to look after it; • a basic knowledge of route and equipment planning in readiness for one or two day(s) expedition over a distance of between 12–16 miles/20–25 km; • an ability to navigate safely, with minimum guidance, over short distances, along well trodden footpaths in an unfamiliar area; • an ability to work as part of a group sharing responsibilities; • an ability to use simple techniques such as map setting visually with guidance; • planning routes using Naismith's Rule with guidance; • tent erection with due regard to weather/ground conditions; • an ability to collect local weather and other information and use it to advantage on the venture; • an ability to observe all the rules as they apply to the countryside, campcraft and safety; • an understanding of the body's needs/responses to exercise and weather changes.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a simple knowledge of the basic equipment required for the venture and how to use it; • a limited knowledge of how to prepare simple route and equipment sheets for a planned expedition over a distance of 6–8 miles/10–15 km; • an ability, with guidance, to navigate safely over a short distance along well trodden footpaths in an unfamiliar area; • an ability, as part of a team, to work to achieve a successful outcome; • an ability to understand simple techniques such as map orientation, load packing and carrying; • an ability to receive/collect local weather and topographical information and make certain judgements; • an ability to observe simple rules as they apply to the countryside, campcraft and safety; • an awareness of the body's needs/responses to exercise and weather changes.

Category 6: Swimming

Competitive Swimming

Candidates should demonstrate knowledge and understanding in order to:

- implement the rules for competition and prepare for and participate in races in the various sprint, distance, medley and team events;
- develop, apply and evaluate their skills in selected water-based activities;
- extend their knowledge, understanding and swimming ability.

Competitive Swimming assessment: Planning, performing and evaluating

Marks	Description		
41–50	A candidate should demonstrate under applied conditions:		
	<ul style="list-style-type: none">• an ability to plan in fine detail, and carry out prior to competition, a preparation programme covering every aspect of a warm up and training schedule;• an ability to swim 50m using three different strokes with the correct arm, leg, breathing technique in less than the following times:		
		Boys	Girls
	Front Crawl	47 secs	49 secs
	Breast Stroke	56 secs	59 secs
	Back Crawl	51 secs	54 secs
	Butterfly	49 secs	52 secs
<ul style="list-style-type: none">• a very detailed knowledge and understanding of the rules as they apply to all swimming competitions.			
31–40	A candidate should demonstrate under applied conditions:		
	<ul style="list-style-type: none">• an ability to carry out, without supervision, a preparation programme which includes a warm up and training schedule;• an ability to swim 50m using three different strokes with the correct leg, arm and breathing action in less than the following times:		
		Boys	Girls
	Front Crawl	50 secs	52 secs
	Breast Stroke	59 secs	62 secs
	Back Crawl	54 secs	57 secs
	Butterfly	52 secs	55 secs
<ul style="list-style-type: none">• a detailed understanding of the rules as they apply to all swimming competitions.			

Marks	Description
21–30	A candidate should demonstrate under applied conditions:
	<ul style="list-style-type: none">an ability to carry out, with supervision, a preparation programme which includes a warm up, practice and training schedule;an ability to swim 50m using the correct leg, arm and breathing technique in three of the following strokes in less than the times stated:
11–20	A candidate should demonstrate under applied conditions:
	<ul style="list-style-type: none">an ability to carry out a simple warm up, practice and training schedule under close supervision;an ability to swim distances of 50m using two different strokes with the correct arm, leg and breathing action, without a pause;an understanding of some of the rules of competition, particularly those in which he/she participates.
0–10	A candidate should demonstrate under applied conditions:
	<ul style="list-style-type: none">a minimum knowledge of basic requirements of a warm up, practice and training schedule;an ability to move through the water a distance of 50m showing a form of stroke;a limited understanding of the rules of competitions.

Category 7: Combat Activities

Combat activities

Candidates should demonstrate knowledge and understanding in order to:

- acquire the essential skills and their names in order to participate in the activity;
- participate fully in a recognised version of a competitive contest and undertake a variety of roles, for example, performer, coach, official;
- use increasingly advanced strategies and tactics and adapt these to the strengths and limitations of other participants;
- perform increasingly advanced techniques in both practice and competition and know how to improve performance;
- co-operate with others in regular practice in order to refine their technique;
- implement the rules of the activity including those governing specific competitions.

Judo assessment: Planning, performing and evaluating

Marks	Description
41–50	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a detailed understanding of the rules and regulations for Judo when performing at a high level; • a very good understanding of tactics with the ability to plan strategies appropriate in both attacking and defensive situations; • an ability to select the best skills, from those listed, in practice and contest situations and produce very good attacking and defensive movements with a high measure of control, consistency and accuracy; • an ability to show speed of movement to outwit opponents, showing very good distribution of weight and the correct application of force to off balance opponents.
31–40	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a good understanding of the rules and regulations for Judo when performing at a good level; • a good understanding of the grip, stance to enable players to attack on the left and right; • an ability to select and use the correct skills in practice and contest situations and produce good attacking and defensive movements with a good measure of control, consistency and accuracy; • an ability to apply tactics successfully to overcome opponents' weaknesses, showing a good measure of speed and a good distribution of weight to off balance opponents.
21–30	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a sound understanding of the rules and regulations for Judo when performing at a good level; • a sound understanding of the grip, stance to enable players to attack on the left and right; • an ability to make sensible choices when choosing the best manoeuvre and understand the principle of attack and defence to outwit opponents; • an ability to execute a variety of throws in a contest situation, using appropriate tactics with a reasonable measure of success.

Marks	Description
11–20	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a basic understanding of the rules/regulations in order to perform at a reasonable level, particularly in a practice situation; • an ability to make appropriate simple choices in an attempt to outwit opponents both in attack and defence in a practice situation; • an ability to execute basic skills with a reasonable amount of control in a practice situation, without the ability to move quickly from a defensive situation to an attacking situation; • an awareness of simple tactics to overcome opponents' weaknesses at a basic level.
0–10	<p>A candidate should demonstrate under applied conditions:</p> <ul style="list-style-type: none"> • a limited understanding of the rules/regulations of Judo; • a limited ability to organise him/herself and others in order to improve simple techniques in practice; • a limited ability to select the appropriate movements in order to outwit opponents; • a limited ability to execute the basic skills in a passive situation.

8. Coursework assessment

8.1 Summary of the assessment of practical activities

Introduction

Centres will conduct the assessment of practical activities and will follow a process of internal standardisation. A Cambridge appointed Moderator will use video evidence for external moderation.

Assessment Objectives

The assessment objectives which have to be met through the assessment of practical activities are:

AO1: physical performance including an ability to inter-relate planning, performing and evaluating whilst undertaking activity.

AO2: an ability to analyse and improve their own and others' performance.

Weighting of marks for the practical activities

AO1:	Planning, performing and evaluating	50%
AO2:	Analysing and improving	10%

Candidates must choose **four** activities from a minimum of **two** of the **seven** categories against which they will be assessed.

Category 1 Game Activities	Category 2 Gymnastic Activities	Category 3 Dance Activities (max 2 dance styles)	Category 4 Athletics Activities	Category 5 Outdoor and Adventure Activities	Category 6 Swimming	Category 7 Combat Activities
Association Football	Artistic Gymnastics (floor and vault)	Educational Dance	Cross Country Running	Canoeing	Competitive Swimming	Judo
Badminton		Folk Dance	Cycling	Hill Walking		Karate
Basketball	Figure Skating (Individual)	Historical Dance	Track and Field Athletics	Campcraft or Hostelling	Personal Survival	
Cricket	Rhythmic Gymnastics	Social Dance	Weight Training for Fitness	Horse Riding	Life Saving	
Goalball	Trampolining	Theatrical Dance		Orienteering		
Golf				Rock Climbing		
Hockey				Rowing		
Netball				Sailing		
Rounders				Skiing		
Rugby Union				Snowboarding		
Softball				Windsurfing		
Squash						
Table Tennis						
Tennis						
Volleyball						

Examples of recording sheets may be downloaded from www.cie.org.uk/samples. Moderators will require Centres to complete these forms and submit them to Cambridge.

8.2 Assessment of practical activities

Planning, performing and evaluating (50% of the total marks)

Planning, performing and evaluating are part of a continuous, interrelated process and you must take this into account when assessing the practical activities of candidates.

When you are assessing a candidate's ability to plan, perform and evaluate, the performance level of the candidate is central to your assessment. The candidate must, therefore, first of all meet the performance assessment descriptors at a particular level. You will then assess the candidate's mark, within the range of marks for that level, by his/her ability to meet the other assessment descriptors at that level.

Periodic assessment of practical activities

You should assess candidates at least three times during a two-year course of study so that a periodic, progressive assessment procedure is evident.

Examples of assessment sheets for the recording of individual candidate and activity marks can be downloaded from www.cie.org.uk/samples. There are separate assessment forms for Track and Field Athletics, Competitive Swimming and Cross Country Running which must be used.

Other considerations concerning assessment

All Centres must provide video recorded evidence of planning, performing and evaluating for most of the practical activities. The exceptions are in:

- Track and Field Athletics, Competitive Swimming and Cross Country Running, where candidates' performance times/distances are required for participation events. However, you must send all recorded times and distances which must be independently verified with a signature, name, position and date on each assessment sheet.
- Hill Walking and Campcraft/Hostelling, where evidence of planning, performing and evaluating will be in the form of route sheets, route tracings, equipment, menu lists and expedition logs. These must be submitted for external moderation.

If you teach practical activities on a modular basis over a two year period, you may need to record video evidence of a candidate's ability at the end of a module. Keep the video evidence for moderation purposes.

You must keep all work produced by candidates as well as records of assessment, because the Centre Moderator may wish to inspect them.

Guidance on the requirements for video evidence of coursework

Centres offering the Physical Education syllabus to their students must provide video recorded evidence of their candidates' practical performance.

The following guidelines will help you to produce the videotape. **There should be no need to submit more than one 3 hour DVD.**

- Record your video evidence on full sized DVD (mini DVDs are not acceptable). Check carefully the video evidence carefully before submission to Cambridge. The DVD must be viewable in the UK, on Windows Media Player or Quicktime.
- Each activity should be between 10 and 15 minutes duration.
- Select five candidates (or all candidates if you have fewer than five) from each submitted activity. Select candidates from across the ability range.
- Identify candidates by large numbered bibs or card numbers pinned back and front.

- With the DVD send Centre Order of Merit sheets for each activity showing the candidates' marks **rank order**. Identify candidates shown on the DVD on the Centre Order of Merit sheets.
- Order of Merit sheets, and the instructions for completing them, may be downloaded from **www.cie.org.uk/samples**. The database will ask you for the syllabus code and your Centre number, after which it will take you to the correct forms.

AO1: Planning, performing and evaluating

The recorded evidence should show one or two candidates taking a small group through a five minute warm up routine (if this is possible). Show one or two candidates for no more than two activities. Centres must provide video recorded evidence of performance of a sample of five candidates from across the ability range in each of the practical activities offered by the Centre. Show different candidates in each activity demonstrating their ability to perform the essential skills in the activity. For example, in Basketball show the ability to dribble, pass and receive the ball, and perform different methods of scoring in an unopposed situation. It may then be possible to place the candidates in a small game or group situation where team skills, if applicable, can be demonstrated. Finally, in a game activity show the candidates ideally in a full or larger game situation. This latter point may not always be possible. However, if this is possible within a game situation, track the identified candidates with the camera. You do not need to provide video recorded evidence for activities which are objectively tested, for example Competitive Swimming, Cross Country Running and Track and Field Athletics. However, you must send all recorded times and distances in support of the mark awarded. The times and distances for these activities must be independently verified with a signature, name, position and date on the assessment forms for these activities. Assessment forms to use for Track and Field Athletics, Competitive Swimming and Cross Country Running can be downloaded from **www.cie.org.uk/samples**

A running commentary, constantly identifying candidates in the activity situation is also very helpful to the Moderator. You can identify candidates' strengths and weaknesses in the running commentary.

AO2: Analysing and improving

You must provide written evidence in the form of an Analysing and Improving Task of a sample of at least five candidates from across the ability range. The Analysis and Improving Task instructions can be downloaded from **www.cie.org.uk/samples**. You may also video record interviews with candidates where they are asked questions, probably by the Teacher. The candidates should explain skills being performed by a colleague, analyse the colleague's performance and suggest ways of improving any identified weaknesses through different training methods and practices.

Important considerations when filming practical activities

- You should ensure that video recorded evidence for indoor activities is shot in good light.
- Avoid using white on yellow bibs, as the numbers are difficult to read on a television screen.
- You may film boys and girls together but show the marks separately and in ranked order.
- Accompanying notes are useful. Give an accurate description of how well candidates are performing because the marks of unseen candidates will be affected. Explain the reason if a candidate is off form.

Documentation to accompany the DVD

Send the following documentation with the DVD:

- MS1,
- Coursework Summary Assessment Form (downloadable from **www.cie.org.uk/samples**),
- Centre Order of Merit Sheet for each activity assessed (downloadable from **www.cie.org.uk/samples**),
[There are separate Centre Order of Merit Sheets for Track and Field Athletics, Competitive Swimming and Cross Country Running.]
- Written *Analysing and Improving Tasks*.

External moderation of internal assessment is carried out by Cambridge. Centres must submit candidates' internally assessed marks to Cambridge. The deadlines and methods for submitting internally assessed marks are in the *Cambridge Administrative Guide* available on our website.

Analysing and improving (10% of the total mark)

The criteria for assessing a candidate's ability to analyse and improve their own or someone else's performance are shown below:

Criteria for assessing analysing and improving

Marks	Description
9–10	<p>A candidate will be able to demonstrate the following:</p> <ul style="list-style-type: none"> recognises, and can identify by name, all the essential skills and techniques of the activity and the part that tactics play (if appropriate); understands the clear role of a player/participant/performer, what they are doing, and what they should be doing; able to identify all the major strengths in a performance and why they are seen as strengths in a detailed way; able to identify all the main weaknesses in a performance and prioritise the appropriate means to eradicate them; a detailed knowledge of the main physiological, psychological and social factors that affect performance; able to plan a training programme in detail, taking into account all the factors that might affect the aim and design of the programme and what targets should be set.
7–8	<p>A candidate will be able to demonstrate the following:</p> <ul style="list-style-type: none"> recognises the important skills and can attach names to all of them; understands the role of a player/participant/performer and what they are trying to achieve in a sound way; able to identify two or more strengths in a performance and be able to explain why in a detailed way; able to identify most of the weaknesses in a performance and be able to suggest corrective measures through training and practice; a knowledge of the main physiological, psychological and social factors that affect performance; understands how to devise a training programme, in such a way that it caters for the needs of the player/participant/performer.
5–6	<p>A candidate will be able to demonstrate the following:</p> <ul style="list-style-type: none"> recognises the basic skills and can attach names to most of them; understands the role of a player/participant/performer and what they are trying to achieve in a simple way; able to identify two or more strengths in a performance and be able to explain why in simple terms; able to identify two or more weaknesses in a performance and be able to suggest simple corrective measures; a knowledge of some of the factors that affect performance; understands how to devise a simple training programme, but may not always be able to develop it for the needs of the player/participant/performer.

Marks	Description
3–4	<p>A candidate will be able to demonstrate the following:</p> <ul style="list-style-type: none"> • recognises the basic skills and can attach some names to them; • understands the role of a player/participant/performer and what they are trying to achieve in a very simple way; • able to identify one or two strengths in a performance and be able to explain why in very simple terms; • able to identify one or two weaknesses in a performance and be able to suggest a very simple corrective practice; • a knowledge of one or two factors that might affect performance; • a limited understanding of how to devise a simple training programme, with little understanding of how this might improve player/participant/performer's performance.
0–2	<p>A candidate will demonstrate the following:</p> <ul style="list-style-type: none"> • limited vocabulary of terms of the activity; • understands the role of a player/participant/performer but will not fully appreciate how the role fits into the full 'picture' of the activity; • able to identify only the obvious skills, techniques and fitness components but is unlikely to see how they relate to a position or role and why they are important to the overall performance; • able to identify one or two strengths of a performance but will only be able to identify one or two weaknesses of a performance; • limited knowledge of the factors affecting performance; • very limited knowledge or understanding of the kind of training practices used to improve performance.

Centres must provide a sample of candidates' written Analysing and Improving Tasks to support Teachers' assessments of candidates' ability to analyse and improve performance. However, in addition Centres may choose to video record a sample of candidates demonstrating their ability to analyse and improve performance in their chosen practical activity. Video evidence of this component should be no longer than five minutes per candidate.

Recording candidates' marks

Candidates' marks for Component 2 must be recorded on the Individual Candidate Record Card produced by Cambridge. These forms, and the instructions for completing them, may be downloaded from **www.cie.org.uk/samples**. The database will ask you for the syllabus code (i.e. 0413) and your Centre number, after which it will take you to the correct forms. Follow the instructions when completing each form.

8.3 Moderation

Teachers mark all coursework. Centres then internally standardise Teachers' marks. Coursework mark sheets, video recorded evidence of candidates' performance in practical activities and evidence of their analysing ability are then submitted to the Cambridge appointed Moderator. The deadlines and methods for submitting internally assessed marks are in the *Cambridge Administrative Guide* available on our website.

The purpose of the moderation is to ensure that the standard for the award of marks in coursework is the same for each Centre and that each teacher has applied the standard appropriately across the range of candidates within the Centre.

Centres should provide recorded evidence of performance of a sample of five candidates from across the ability range in **each** of the practical activities offered by the Centre. In addition, Centres must provide these candidates' written Analysing and Improving Tasks to show their ability to analyse their own or others' performance and their ability to suggest ways in which the performance might be improved. Centres may also choose to record video evidence of candidates being interviewed and demonstrating their ability to analyse and improve performance in their chosen activity. This evidence should be for a sample of five candidates from across the ability range in at least two activities, where this is possible.

Minimum coursework requirements

If a candidate submits no work for the coursework component, then you should mark the candidate as being absent from that component on the coursework mark sheets that you send to Cambridge. If a candidate completes any work at all for the coursework component then you should assess the work according to the criteria and marking instructions, and award the appropriate mark, which may be 0 (zero).

Special arrangements

For candidates who are unable to complete the full assessment of coursework or whose performance may be adversely affected through no fault of their own, you should consult the procedures which can be found in the *Cambridge Handbook*. You should apply for special arrangements in such cases as early as possible during the course. Centres are advised to retain video evidence of candidates' assessments during the course of study in case of injury. In order to be eligible for special considerations, candidates must have been assessed in the Analysing and Improving task as well as assessment in a minimum of at least two of the four practical activities. All cases of special considerations must be accompanied by full evidence, details of which can be found in Section 5.8.8 of the *Cambridge Handbook*.

Authentication

As with all coursework, you must be able to verify that the work submitted for assessment is the candidate's own work.

Differentiation

In the question paper, differentiation will be achieved by outcome and by the use of structured questions each of which incorporates an incline of difficulty. The questions will be designed to allow candidates to demonstrate what they know, understand and can do.

Differentiation in Coursework will be by outcome.

Awarding of grades

As Cambridge IGCSE Physical Education has two components (Paper 1 and Coursework), a candidate's marks for the two components will be combined with the appropriate weighting to give the candidate's total mark for the syllabus. Candidates who fail to achieve the minimum mark for grade G will be ungraded.

Internal standardisation

You should have a system of internal standardisation if you have more than one group of candidates being taught an activity in the Centre.

The internally moderated marks for all candidates must be recorded on the Coursework Assessment Summary Form. This form, and the instructions for completing it, may be downloaded from **www.cie.org.uk/samples**. The database will ask you for the syllabus code (i.e. 0413) and your Centre number, after which it will take you to the correct form. Follow the instructions when completing the form.

If you offer off-site activities, such as Skiing and Horse Riding, and where instruction is provided by qualified instructors, Centre staff must be present to video record the assessment process and verify the accuracy and authenticity of the marks awarded.

External moderation

Centres are required to send video recorded evidence of a sample of candidates' practical performances in terms of planning, performing and evaluating, plus your assessment sheets, as well as written coursework evidence for analysing and improving to Cambridge.

Pupils with disabilities

You should not prevent any candidate from participating in the practical activities on the grounds of disability.

Within the range of practical activities offered, candidates with disabilities will be capable of achievement in the assessment objectives with or without adaptation in their chosen activities.

Where a candidate with a disability chooses an activity which needs adaptation to meet their needs, you must take steps to ensure that they are not penalised. In such instances, and before beginning to teach the course, you must inform Cambridge, indicating the nature of the candidate's disability and suggesting ways in which the activity might be adapted. Cambridge and the Principal Moderator will then consider the situation.

9. Grade description

The grade descriptions below give a general indication of the standards of achievement likely to have been shown by candidates awarded particular grades. The descriptions must be interpreted in relation to the content specified by the syllabus; they are not designed to define that content. The grade awarded will depend in practice upon the extent to which the candidate has met the assessment objectives overall. It might conceal a weakness in one aspect of the examination which is balanced by a better performance in another.

Grade A

- Candidates demonstrate effectively, through performance, the ability to interrelate planning, performing and evaluating while undertaking activity. They demonstrate a high level of competence in all their chosen physical activities.
- Candidates analyse and improve their own and others' performance accurately.
- Candidates know and understand most of the factors affecting performance; the majority of the health and safety aspects of physical activity including many of the advantages and risks associated with a range of training strategies; most of the reasons for participating in physical activity.

Grade C

- Candidates demonstrate, through performance, a sound ability to interrelate planning, performing and evaluating while undertaking activity. They demonstrate competence in their chosen physical activities.
- Candidates analyse and improve their own and others' performance with some success and understanding.
- Candidates know and understand many of the factors affecting performance; many of the health and safety aspects of physical activity including several advantages and risks associated with a range of training strategies and techniques; many of the reasons for participating in physical activity.

Grade F

- Candidates demonstrate, through performance, some ability to interrelate planning, performing and evaluating while undertaking activity. They demonstrate a limited level of competence in their chosen physical activities.
- Candidates analyse and improve some simple aspects of their own and others' performance.
- Candidates know and understand some of the factors affecting performance: a limited number of health and safety aspects of physical activity, including a few advantages and risks associated with a range of training strategies and techniques; some of the reasons for participating in physical activity.

9.1 Further information

You can obtain the following materials and services from us to help you deliver Cambridge IGCSE Physical Education:

- specimen papers and marking guidelines;
- coursework guidance material;
- a Report on the Examination, compiled by the Principal Examiner and Principal Moderator after each examination series;
- Cambridge Physical Education Coursework Video;
- Schemes of Work.

If you would like further information about this syllabus, please contact us. You will find the address on the back cover of this syllabus booklet, or email us at **info@cie.org.uk**

10. Other information

Equality and inclusion

Cambridge International Examinations has taken great care in the preparation of this syllabus and assessment materials to avoid bias of any kind. To comply with the UK Equality Act (2010), Cambridge has designed this qualification with the aim of avoiding direct and indirect discrimination.

The standard assessment arrangements may present unnecessary barriers for candidates with disabilities or learning difficulties. Arrangements can be put in place for these candidates to enable them to access the assessments and receive recognition of their attainment. Access arrangements will not be agreed if they give candidates an unfair advantage over others or if they compromise the standards being assessed.

Candidates who are unable to access the assessment of any component may be eligible to receive an award based on the parts of the assessment they have taken.

Information on access arrangements is found in the *Cambridge Handbook* which can be downloaded from the website **www.cie.org.uk/examsofficer**

Language

This syllabus and the associated assessment materials are available in English only.

Grading and reporting

Cambridge IGCSE results are shown by one of the grades A*, A, B, C, D, E, F or G indicating the standard achieved, A* being the highest and G the lowest. 'Ungraded' indicates that the candidate's performance fell short of the standard required for grade G. 'Ungraded' will be reported on the statement of results but not on the certificate. The letters Q (result pending), X (no results) and Y (to be issued) may also appear on the statement of results but not on the certificate.

Entry codes

To maintain the security of our examinations, we produce question papers for different areas of the world, known as 'administrative zones'. Where the component entry code has two digits, the first digit is the component number given in the syllabus. The second digit is the location code, specific to an administrative zone. Information about entry codes can be found in the *Cambridge Guide to Making Entries*.

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