

Physical Education Key Learning Area

Physical Education Curriculum and Assessment Guide (Secondary 4 - 6)

Jointly prepared by the Curriculum Development Council and
The Hong Kong Examinations and Assessment Authority

Recommended for use in schools by the Education Bureau
HKSARG
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Preamble

The Education and Manpower Bureau (EMB, now renamed Education Bureau (EDB)) stated in its report¹ in 2005 that the implementation of a three-year senior secondary academic structure would commence at Secondary 4 in September 2009. The senior secondary academic structure is supported by a flexible, coherent and diversified senior secondary curriculum aimed at catering for students' varied interests, needs and abilities. This Curriculum and Assessment (C&A) Guide is one of the series of documents prepared for the senior secondary curriculum. It is based on the goals of senior secondary education and on other official documents related to the curriculum and assessment reform since 2000, including the *Basic Education Curriculum Guide* (2002) and the *Senior Secondary Curriculum Guide* (2009). To gain a full understanding of the connection between education at the senior secondary level and other key stages, and how effective learning, teaching and assessment can be achieved, it is strongly recommended that reference should be made to all related documents.

This C&A Guide is designed to provide the rationale and aims of the subject curriculum, followed by chapters on the curriculum framework, curriculum planning, pedagogy, assessment and use of learning and teaching resources. One key concept underlying the senior secondary curriculum is that curriculum, pedagogy and assessment should be well aligned. While learning and teaching strategies form an integral part of the curriculum and are conducive to promoting learning to learn and whole-person development, assessment should also be recognised not only as a means to gauge performance but also to improve learning. To understand the interplay between these three key components, all chapters in the C&A Guide should be read in a holistic manner.

The C&A Guide was jointly prepared by the Curriculum Development Council (CDC) and the Hong Kong Examinations and Assessment Authority (HKEAA) in 2007. The first updating was made in January 2014 to align with the short-term recommendations made on the senior secondary curriculum and assessment resulting from the New Academic Structure (NAS) review so that students and teachers could benefit at the earliest possible instance. This updating is made to align with the medium-term recommendations of the NAS review

¹ The report is *The New Academic Structure for Senior Secondary Education and Higher Education – Action Plan for Investing in the Future of Hong Kong*, and will be referred to as the *334 Report* hereafter.

made on curriculum and assessment. The CDC is an advisory body that gives recommendations to the HKSAR Government on all matters relating to curriculum development for the school system from kindergarten to senior secondary level. Its membership includes heads of schools, practising teachers, parents, employers, academics from tertiary institutions, professionals from related fields/bodies, representatives from the HKEAA and the Vocational Training Council (VTC), as well as officers from the EDB. The HKEAA is an independent statutory body responsible for the conduct of public assessment, including the assessment for the Hong Kong Diploma of Secondary Education (HKDSE). Its governing council includes members drawn from the school sector, tertiary institutions and government bodies, as well as professionals and members of the business community.

The C&A Guide is recommended by the EDB for use in secondary schools. The subject curriculum forms the basis of the assessment designed and administered by the HKEAA. In this connection, the HKEAA will issue a handbook to provide information on the rules and regulations of the HKDSE Examination as well as the structure and format of public assessment for each subject.

The CDC and HKEAA will keep the subject curriculum under constant review and evaluation in the light of classroom experiences, students' performance in the public assessment, and the changing needs of students and society. All comments and suggestions on this C&A Guide may be sent to:

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Acronyms

AL	Advanced Level
ApL	Applied Learning
ASL	Advanced Supplementary Level
C&A	Curriculum and Assessment
CDC	Curriculum Development Council
CE	Certificate of Education
COC	Career-Oriented Curriculum (pilot of the Career-oriented Studies)
EC	Education Commission
EDB	Education Bureau
EMB	Education and Manpower Bureau
HKALE	Hong Kong Advanced Level Examination
HKCAA	Hong Kong Council for Academic Accreditation
HKCEE	Hong Kong Certificate of Education Examination
HKDSE	Hong Kong Diploma of Secondary Education
HKEAA	Hong Kong Examinations and Assessment Authority
HKedCity	Hong Kong Education City
HKSAR	Hong Kong Special Administrative Region
HUCOM	Heads of Universities Committee
IB	International Baccalaureate
IT	Information Technology
JSEA	Junior Secondary Education Assessment
KLA	Key Learning Area
KS1/2/3/4	Key Stage 1/2/3/4
LOF	Learning Outcomes Framework
MOI	Medium of Instruction
NGO	Non-governmental Organisation
OLE	Other Learning Experiences
One Committee	CDC-HKEAA Committee
P1/2/3/4/5/6	Primary 1/2/3/4/5/6

PDP	Professional Development Programmes
PTA	Parent-teacher Association
PYJ	Project Yi Jin
QA	Quality Assurance
QF	Qualifications Framework
RASIH	Review of the Academic Structure for Senior Secondary Education and Interface with Higher Education
REO	Regional Education Office
S1/2/3/4/5/6/7	Secondary 1/2/3/4/5/6/7
SBA	School-based Assessment
SCOLAR	Standing Committee on Language Education and Research
SEN	Special Educational Needs
SES	Socio-economic Status
SFAS	Student Financial Assistance Scheme
SLP	Student Learning Profile
SRR	Standards-referenced Reporting
SSE	School Self-evaluation
SSPA	Secondary School Places Allocation
TPPG	Teacher Professional Preparation Grant
UCLES	University of Cambridge Local Examinations Syndicate
UGC	University Grants Committee
VTC	Vocational Training Council

Chapter 1 Introduction

This chapter provides the background, rationale and aims of Physical Education (PE) as an elective subject in the three-year senior secondary curriculum, and highlights how it articulates with the junior secondary curriculum, post-secondary education and future career pathways.

1.1 Background

According to the *Senior Secondary Curriculum Guide* (CDC, 2009), PE is an elective subject that leads to the Hong Kong Diploma of Secondary Education (HKDSE). In this section, several PE-related terms that are used frequently in this Guide are defined, as background for subsequent discussion.

(a) General PE

PE is a subject that sets out “to educate students through physical activities”. It aims to develop students’ physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. It also develops students’ confidence and generic skills, especially those of collaboration, communication, creativity, critical thinking and aesthetic appreciation. These, together with the nurturing of positive values and attitudes in PE, provide a good foundation for students’ lifelong and life-wide learning. Teachers may refer to the *PE KLA Curriculum Guide (P1-S3)* (CDC, 2002) for more information about the position, rationale, curriculum framework and recommended learning and teaching strategies of this subject.

Structured PE lessons constitute 5-8% of total lesson time in basic education (Primary 1 to Secondary 3) and at least 5% in the senior secondary curriculum. Other than PE lessons, students are also encouraged to participate actively and regularly in at least one PE-related co-curricular activity. To avoid confusion with the PE Elective, these are labelled as “General PE”² hereafter.

(b) An active and healthy lifestyle

There is a global appeal for building healthy communities and this has been echoed in the *334 Report*, in which one of the learning goals is to lead an active and healthy lifestyle. It refers to “a way of living based on regular physical activity and a cluster of related healthy behaviours” which leads to health, vigour, vitality, self-respect and the control of one’s destiny³. People may be at different levels of practising self-regulated active and healthy living, ranging from merely following instructions without really knowing why, to being fully informed and determined to make relevant choices. PE aims to help students to raise their level of self-regulation for leading an active and healthy lifestyle.

Recent research revealed a slight decline in the physical fitness of Hong Kong secondary students, and a decrease in the time senior secondary students spend on exercise and physical

² General PE is also referred to as Other Learning Experience - Physical Development (OLE-PD) in the Senior Secondary Curriculum Guide (Curriculum Development Council, 2009).

³ Sharkey, B. J. (2002). *Fitness and Health*. 5th edn, Champaign, IL: Human Kinetics.

activities compared with junior secondary students. There appears therefore, to be a pressing need to make students more aware of health issues, and more able to deal with them, at the community level. The PE Elective will play an important role in this regard.

(c) PE as a subject in public examinations

With the introduction of the HKDSE, PE will become an examination subject contributing to student qualifications for admission to post-secondary programmes on a par with other subjects.

(d) The position of the senior secondary PE Elective

The *334 Report* showed that universities support the idea of broadening entrance requirements to admit students who have a wide educational experience, and that they are considering relaxing the programme admission criteria that require a number of subjects (specific or from a group) over and above the mandatory requirement. When students need not restrict themselves to studying a particular group of subjects, they can choose electives which are interesting and relevant. The PE Elective is inherently interesting and relevant to daily life, and thus appears to be a good choice for study at senior secondary level.

As a senior secondary elective subject leading to the HKDSE, the PE Elective is academically rigorous in its curriculum design. It is designed to help students to develop a good foundation for further studies in the areas of science, the humanities and the social sciences. It builds on the foundation of General PE and advances students' knowledge, understanding and skills in PE, sport and recreation, whether they aim to be elite athletes or are just interested in sport and physical activity. Figure 1.1 shows the position of the PE Elective in the senior secondary curriculum and its linkage to General PE.

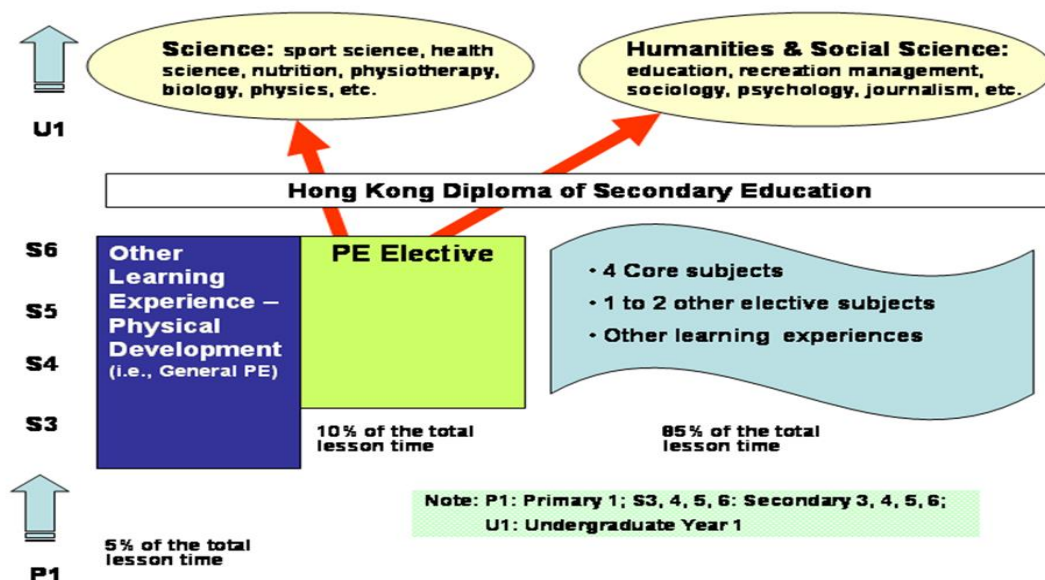


Figure 1.1 Position of the Physical Education Elective

1.2 Rationale

The PE Elective aims to nurture a group of citizens who:

- have the knowledge of PE, sport and recreation that enables them to understand and be critical, reflective and independent thinkers when they confront issues that affect their daily lives at personal, community, national and global levels;
- are physically and mentally healthy, able to face challenges of all kinds, self-regulated in adopting an active and healthy lifestyle, able to attract other people to follow their way of living, and actively concerned about health-related issues in society;
- display desirable moral behaviour and respect the plurality of cultures and views in the context of PE, sport and recreation.

The PE Elective is very important for students in the following respects:

- Given its authentic and interdisciplinary nature, the PE Elective can enable students, on the one hand, to collect and manage information in a scientific manner, and on the other hand, to be reflective in problem-solving and social interaction. This helps them to build a good foundation for further education in a wide range of studies.
- It fosters the development of a lifelong interest in participating in sport and physical activity. To sustain the emerging sport culture developed in students in recent years, the PE Elective provides the knowledge and skills to enable students to participate in physical activity for fun or self enhancement in a safe manner.
- Through reflecting on the experience they gain from participating in sport and physical activity, students can better understand and apply concepts and theories in disciplines such as physiology, nutrition, physics, sociology, psychology, history and management.

The PE Elective emphasises whole-person development and contributes to social well-being in the following respects:

- Healthy living is fundamental to an individual's life and the welfare of society. The PE Elective helps to enlarge and strengthen that group of active and healthy citizens who contribute to improving the macro environment to make the world a healthier place to live in.
- Society has become increasingly diverse, complex, and ever-changing. It calls for the development of generic skills and the learning to learn capacity in students, workers, and professionals at all levels. Through engaging students in higher-order cognitive processes as a result of exposure to different theoretical and practical learning experience, the PE Elective not only enables them to acquire and construct knowledge in PE, sport and recreation but also improves their cognitive functioning, enhances their generic skills, and helps them to develop desirable values and attitudes.

1.3 Curriculum Aims

The PE Elective curriculum aims at enabling students to:

- acquire the knowledge and skills, and develop the values and attitudes necessary to pursue an active and healthy life in a self-regulated manner;
- become responsible citizens who contribute to the building of a healthy community and are themselves vigorous, vital and able to convince others to adopt an active and healthy lifestyle;
- integrate physical skills with theoretical learning and use them to support and strengthen their conceptual understanding and higher-order thinking;
- construct knowledge by linking the understandings they develop in PE, sport and recreation with those in other disciplines, and make use of this knowledge in further education and career development;
- apply theories to enhance performance or participation in PE, sport and recreation;
- develop positive sport-related values, attitudes and desirable moral behaviour, and transfer them to their daily life;
- develop the generic skills for lifelong learning.

1.4 Interface with the Junior Secondary Curriculum and Post-secondary Pathways

The PE Elective curriculum is a continuation of junior secondary education and helps students to establish a good foundation for post-secondary education. PE provides students with a choice of physical activities and offers a more advanced and academically-oriented study, involving a multiplicity of concepts in the areas of PE, sport and recreation, and in understanding, executing and evaluating human movement.

It provides a broader and more demanding knowledge and skill base than General PE for students to develop further in the six strands of PE. In particular, the strands: “knowledge of movement”, “health and fitness”, “sport-related values and attitudes” and “knowledge and practice of safety” are strengthened, through increasing the depth and breadth of the studies undertaken, to cover a wider range of topics that touch on physiology, nutrition, physics, sociology, psychology, history and management science. With such a knowledge base, those studying the PE Elective will be well prepared for admission to post-secondary programmes in subjects such as PE, sport science, recreation and management, education, physiotherapy, nursing and journalism.

Given its authentic nature and interdisciplinary curriculum design, the PE Elective helps students to develop scientific and reflective thinking, desirable values and attitudes, and useful generic skills, as well as a healthy and strong body. In brief, PE develops student attributes that post-secondary programmes in any discipline require.

Chapter 2 Curriculum Framework

The curriculum framework for the PE Elective embodies the key knowledge, skills, values and attitudes that students are to develop at senior secondary level. It forms the basis on which schools and teachers can plan their school-based curriculum, and design appropriate learning, teaching and assessment activities.

2.1 Guiding Principles

(a) Prior knowledge in basic education

The PE Elective curriculum is built on the assumption that the students have completed General PE in basic education and have experience of: (1) learning and applying basic skills in at least eight different physical activities from not fewer than four areas, including games and competitions, as well as participating in at least one PE-related co-curricular activity; (2) applying theories of physical activities and training principles in health-related fitness programmes; and (3) thinking about and debating issues in PE and sport. While the PE Elective aims to broaden and deepen the knowledge and skills students have previously learnt, it emphasises application, integration and synthesis of knowledge related to daily life.

(b) Interdisciplinary approach

It is important to help students to build a strong and wide knowledge base. Besides, it is particularly important to ensure that they have an overall understanding of the physical and social world of PE, sport and recreation by enabling them to make connections between concepts acquired in different disciplines and from different sources. In this era of “information explosion”, it is fairly straightforward to provide students with a large amount of learning material – but helping them to develop a conceptual framework that makes sense of it all is more challenging. The different parts of the PE Elective curriculum have, therefore, been organised in a meaningful way. They are not just a mixture of components taken from various disciplines.

(c) Articulation to later studies

The PE Elective curriculum stresses the importance of cross-curricular links and its delivery emphasises inquiry-based learning and reflection. It helps to build a strong foundation for further education in a wide range of science, the humanities and social science subjects.

(d) Balance between breadth and depth

The PE Elective aims to cater for the diverse interests, aptitudes and needs of students while giving them opportunities to acquire essential concepts in the areas which constitute the core knowledge of PE, sport and recreation. In addition to developing knowledge in core areas, students can study chosen topics at more depth.

(e) Development of generic skills, positive values and attitudes

The PE Elective puts considerable emphasis on developing generic skills, positive values and attitudes and putting them into practice. The PE Elective makes full use of General PE to provide students with opportunities to develop and refine generic skills, and to develop positive values and attitudes through participation in sport and physical activity.

(f) Linkage between theory and physical skills

Although the PE Elective curriculum content is academically rigorous and includes topics drawn from various disciplines, a practical component is built in to ensure that the subject involves a strong connection between theory and practice. The PE Elective also engages students in authentic tasks to be carried out as part of active and healthy living. Such tasks may require students to integrate and apply theories they have learnt in real-life situations.

(g) Safety considerations

Safety considerations are important in PE, sport, and recreation. While it is desirable to allow students to choose from as many physical activities as available, safety concerns have to be considered seriously. Adequate support and guidance are required for meaningful learning to take place. For the practical component, it is reasonable to require students to choose only those sports or physical activities that have been included in the school-based General PE curriculum to ensure that they are well supervised and supported by appropriate staff.

2.2 Learning Targets

In the PE Elective, students are expected to:

- broaden their knowledge and deepen their understanding of issues related to body maintenance, self enhancement and care for the community in PE, sport and recreation;
- develop the knowledge, attitudes, skills and habits necessary for understanding the world of PE, sport, and recreation through reading;
- enhance their intellectual capacity by integrating physical skills into theoretical learning, using their physical experience to support and strengthen conceptual understanding and higher-order thinking, and to evaluate theories in authentic PE, sport and recreation contexts;
- connect the principles of PE, sport and recreation to related fields and disciplines, and become aware of the links to further education and career paths;
- develop aesthetic appreciation, generic skills, notably communication skills, critical thinking skills, collaboration skills and creativity, and apply them in real-life situations; and
- develop desirable personal and social qualities, desirable sporting etiquette, commitment, a sense of responsibility as well as an understanding of and respect for different cultures in organising events involving physical activities in the school or community.

2.3 Learning Objectives

After completing the PE Elective, students will have acquired a strong knowledge base, desirable values and attitudes, essential skills and habits that enable them to be self-regulated active and healthy citizens. They will also have developed a good foundation for further education in science, the humanities and social science studies at undergraduate level. More specifically, after studying various parts of the curriculum, the students will be able to:

- identify and fulfil their needs as regards body maintenance and participate regularly in physical activities, maintain a satisfactory level of physical fitness, practise healthy eating and stay free from substance abuse;
- identify and fulfil their needs pertaining to self-enhancement and demonstrate knowledge and proficiency in at least two physical activities chosen from the school-based General PE curriculum;
- identify and fulfil society's needs for a healthy community and lifestyle;
- develop an enquiring mind and be able to carry out empirical investigations, and discuss issues based on empirical evidence;
- demonstrate reflective thinking and be able to address issues from a variety of perspectives and in a critical manner, taking into account the values embedded in PE, sport and recreation;
- demonstrate generic skills, particularly communication skills, critical thinking skills, collaborative skills, creativity and aesthetic sensitivity in PE, sport and recreation contexts as well as in other real-life situations.

2.4 Curriculum Structure and Organisation

2.4.1 Curriculum Structure

Figure 2.1 shows a diagrammatic representation of the PE Elective curriculum structure, with the names (in short form) and recommended time allocations for each part. The phrase “self-regulated, active and healthy citizens” appears repeatedly in the background, indicating that the primary curriculum aim of the PE Elective is to nurture a group of active and healthy citizens who are knowledgeable, self-regulated, sensitive to health issues that have an impact on their daily lives, and willing to contribute to building a healthy community.

Four categories of learning outcomes have been identified for the PE Elective. They are (a) science foundation, (b) the humanities and social science foundation, (c) generic skills, and (d) values and attitudes, all of which are to be achieved through studying nine theoretical parts and engaging in the practicum.

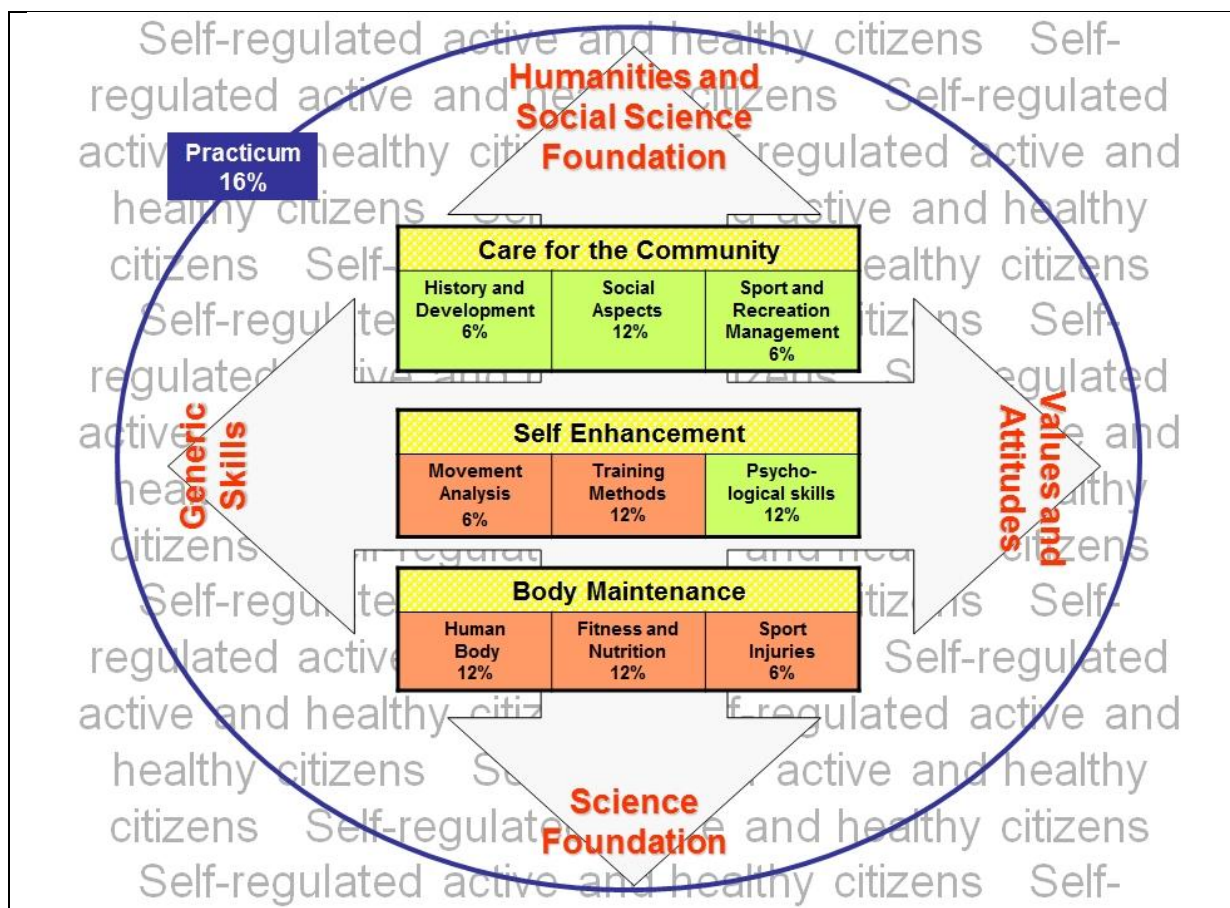


Figure 2.1 Curriculum structure of the Physical Education Elective

2.4.2 Theoretical Learning Parts

The curriculum covers nine theoretical learning parts. The following two points are noteworthy:

- The nine theoretical parts are grouped under three themes, which are considered to be the main concerns of active and healthy citizens. Health refers to our physical, mental and social well-being. An active and healthy lifestyle goes beyond health in that it is a way of living based on regular physical activity that leads to vigour, vitality, self-respect and control of one’s destiny. Hence, in addition to building a strong and healthy body (Theme 1: “Body Maintenance”; recommended lesson time allocation=30%), the PE Elective also helps students to cope with problems they are likely to face when seeking challenges (Theme 2: “Self Enhancement”; recommended lesson time allocation=30%). PE also helps students to confront the social and political issues that may arise in PE, sport, and recreation (Theme 3: “Care for the Community”; recommended lesson time allocation=24%).
- The nine theoretical parts touch on the basics of various academic disciplines, including physiology, nutrition, physics, psychology, sociology, history and management, and help students to build a foundation in science as well as the humanities and social sciences.

2.4.3 Practicum

Figure 2.2 shows how the practicum links the nine theoretical parts to General PE. The intention of the senior secondary PE Elective to build a strong theory-practice linkage is apparent. The practicum has several distinct features:

- While elements of applied learning have been included in each of the nine theoretical parts, the practicum is specifically designed to engage students in active and healthy living by designing, implementing, evaluating and adapting plans pertaining to body maintenance, self enhancement and care for the community in a real-life situation.
- In the practicum, students are required to do physical fitness training, apply theories in at least two physical activities, organise school or community recreation/sport programmes and address current issues in PE, sport and recreation. A wide range of activities to meet students' varied needs and interests may be included in the practicum.
- The practicum provides an opportunity for students to formulate problems and apply theories and concepts learnt in the theoretical parts, in order to establish connections and construct new knowledge.
- Depending on the circumstances and needs of the school, the practicum may be arranged as a whole class activity or supervised individual work. It may also focus on a particular topic, synthesis or application in authentic situations.

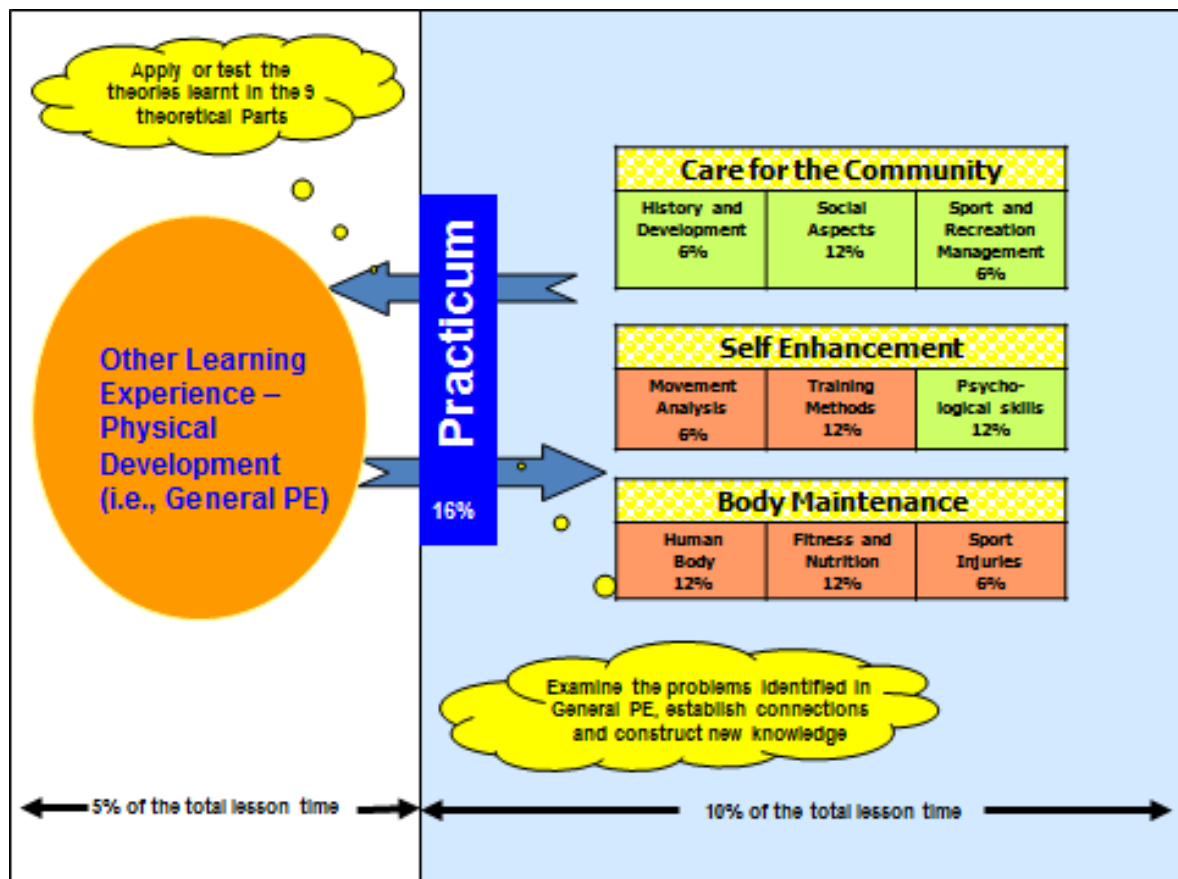


Figure 2.2 The Interactive relationship between the Physical Education Elective and the General PE Curriculum (Other Learning Experience – Physical Development)

2.5 Curriculum Content

As will be elaborated in Chapter 3, the learning and teaching sequence can be varied and should be school-based as far as possible. It is suggested that at S4 (i.e. at the beginning of the course), students are introduced to the definitions, terminology, history and recent development of the subject with materials that draw on the familiar. Starting from S5, students with guidance choose two physical activities in which they would like to participate regularly, and reflect on the experience as part of an active and healthy life.

The curriculum content and the connections between the different parts are described below. The topics that each part may cover are shown in Table 2.1 at the end of this Chapter.

Part I Physical Education, Sport, Recreation, Leisure and Wellness: History and Recent Development: This Part gives students a general picture of the scope of PE and its relationship with sport, recreation and leisure. The terminology, general concepts and the knowledge of the history and recent developments in the area help students to understand the contexts of PE, sport and recreation, and support them in studying the other topics in the PE curriculum.

Part II Human Body: This Part helps students to build a foundation in PE through familiarising them with the human body and its systems, and prepares them for the study of movement analysis (Part III), fitness and health (Part IV), training methods (Part V), sports injuries (Part VI) and psychological skills (Part VII).

Part III Movement Analysis: This Part covers the basic elements in human movement and is linked to the discipline of physics. It guides students to understand the scientific basis of movement and to apply this knowledge, together with the psychological skills they acquire in Part VII for enhanced performance or participation (Part X) in PE, sport and recreation. It also helps students to understand the causes of some common sports injuries (Part VI).

Part IV Fitness and Nutrition for Health and Performance in Physical Activities: This Part helps students to explore the concepts of physical fitness and sport-related fitness, the nutritional components and diet related to physical performance, and the interlocking relations among exercise, physical fitness, diet, health and chronic disease. Such knowledge will enable them to recognise the importance of an active and healthy lifestyle and understand the concept of wellness mentioned in Part I. They can be linked to the discussion of factors affecting participation in sport and recreation (Part VIII).

Part V Physiological Basis for Exercise and Sports Training: This Part equips students with knowledge about physical performance and sports training. It enables students to understand the general principles and the effects of physical training which are fundamental in exercise and acquisition of physical skills. They should be referred to from time to time when students are carrying out the practicum (Part X).

Part VI Sports Injuries, Treatment and Precautions: This Part covers safety measures in sports and physical activities. Building on students' previous knowledge of the human body and movement (Part II and Part III) and exercise and training methods (Part V), it heightens their awareness of common sports injuries and helps them to apply this knowledge to treatment and preventive measures. It also contributes to the understanding of programme organisation and legal issues in PE, sport and recreation (Part IX).

Part VII Psychological Skills for PE, Sport and Recreation: This Part helps students to understand the psychological aspects of PE, sport and recreation, and covers theories of motor learning, factors affecting sport performance and stress management. Building on knowledge gained in previous Parts, it helps students to explain, regulate and enhance the processes involved in learning and performing daily physical skills. This Part is directly linked to the practicum (Part X).

Part VIII Social Aspects of PE, Sport and Recreation: This Part allows students to investigate a wide range of issues in PE, sport and recreation in relation to society. It helps them to gain a deeper understanding of the roles and values of PE and sport (Part I) from a socio-cultural perspective. It also nurtures students' higher-order thinking skills by engaging them in debating current issues, critical analysis of incidents and role play. Facts and findings derived from previous Parts form a basis for the discussion of the issues identified in this Part.

Part IX Sport and Recreation Management: This Part introduces the basic concepts of sport management and programme organisation. It aims at equipping students with knowledge which will be useful in performing school and community services, particularly the organisation of different physical activity events. The knowledge acquired in previous Parts, particularly Part VIII "Social Aspects of PE, Sport and Recreation", forms the basis for considering relevant administrative measures and initiatives.

Part X Practicum: This practical Part provides an opportunity for students to apply the theories learnt from Parts I to IX through practising an active and healthy lifestyle. It requires them to integrate different aspects of the knowledge they have gained to address issues related to body maintenance, self enhancement and care for the community. It also develops students' personal qualities by enabling them to recognise their role in PE-related school and community services.

Table 2.1 Curriculum content of the Physical Education Elective

Part I	Physical Education, Sport, Recreation, Leisure and Wellness: History and Recent Development
a	Definitions and Terminology
b	Roles and Values of PE, Sport, Recreation and Leisure
i	Personal development
ii	Socialisation
iii	International relationships
c	PE in Hong Kong
i	Primary
ii	Secondary
iii	Tertiary
d	Sport, Recreation and Leisure in Hong Kong
i	Government
ii	Non-governmental organisations
iii	Private and commercial clubs

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part II	Human Body
a	Growth and Development
i	Life cycle and growth curves
ii	Stages of development
iii	Body types
b	Skeletal System
i	Functions
ii	Bones
iii	Joints
iv	Cartilage
v	Ligaments
c	Nervous System
i	Functions
ii	Central Nervous System
d	Muscular System
i	Functions
ii	Types of muscle and muscle fibre
iii	Types of muscle contraction
iv	Neuromuscular control
e	Cardiovascular System
i	Functions
ii	Blood vessels
iii	Heart
iv	Circulation
f	Respiratory System
i	Functions
ii	Lungs
iii	Pulmonary ventilation
iv	Gaseous exchange
g	Energy System
i	Aerobic system
ii	Anaerobic system
iii	Energy metabolism during rest and physical activities

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part III		Movement Analysis
a		Forces and movement
	i	Force
	ii	Motion
	iii	Newton's Law of Motion
	iv	Velocity and acceleration
	v	Centre of gravity
	vi	Lever
b		Types of movements
	i	Flexion-extension
	ii	Abduction-adduction
	iii	Pronation-supination
	iv	Plane of motion
	v	Rotation
c		Steps and guidelines for performance analysis

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part IV	Fitness and Nutrition for Health and Performance in Physical Activities
a	Components of Health
i	Physical health
ii	Mental health
iii	Social health
b	Definition of Physical Fitness and Sport-related Fitness
i	Physical Fitness
ii	Sport-related fitness
c	Components and Measurement of Physical Fitness
i	Cardio-respiratory fitness
ii	Flexibility
iii	Muscular strength and endurance
iv	Body composition
d	Components and Measurement of Sport-related Fitness
i	Agility
ii	Balance
iii	Coordination
iv	Endurance
v	Flexibility
vi	Reaction time
vii	Speed
viii	Strength
e	Food and Nutrition
i	Carbohydrates
ii	Proteins
iii	Fats
iv	Vitamins, minerals, fibres and water
v	Balanced diet
vi	Nutrition and exercise performance
f	Weight Control
i	Energy balance
ii	Overweight and obesity
iii	Weight control
g	Healthy Behaviour
i	Diet
ii	Exercise and physical activity level
iii	Rest and relaxation
iv	Substance abuse
v	Posture
h	Roles of Physical Activity for the Prevention of Non-Communicable Diseases
i	Coronary heart disease
ii	Diabetes
iii	Hypertension
iv	Hypokinetic degeneration

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part V	Physiological Basis for Exercise and Sports Training
a	Factors Affecting Performance
i	Cardio-respiratory fitness
ii	Muscular fitness
iii	Flexibility
iv	Age
v	Gender
vi	Heredity
vii	Body types
viii	Drugs
ix	Environment
b	Concepts and Principles of Training
i	Aerobic and anaerobic training
ii	Principles of training
iii	Basic considerations in training
iv	Planning of training programmes
c	Training Methods
i	Resistance training
ii	Circuit training
iii	Continuous training
iv	Interval training
d	Training and Detraining Effects
i	Cardiovascular adaptations
ii	Metabolic adaptations

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part VI	Sports Injuries, Treatment and Precautions
a	Factors Leading to Sports Injuries
i	Environmental factors
ii	Facilities and equipment
iii	Protective devices
iv	Level of skills
v	Level of fitness
vi	Physical limitations
vii	Nature of different sports
b	Common Sports Injuries
i	Bleeding
ii	Abrasion
iii	Contusion
iv	Dislocation
v	Fracture
vi	Pulled muscle
vii	Sprain
viii	Strain
ix	Heat and cold injuries
x	Overuse injuries
c	Treatment
i	General principles of first aid
ii	PRICE (Protection, Rest, Ice, Compression, Elevation)
iii	Resuscitation
d	Prevention of Sports Injuries
i	Risk assessment
ii	Safety measures
iii	Warm up and cool down

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part VII Psychological Skills for PE, Sport and Recreation	
a	Application of Learning Theory in Motor Learning
i	Skill classifications
ii	Skill acquisition and information processing
iii	Stages of learning and transfer of learning
iv	Intrinsic and extrinsic feedback
v	Knowledge of results and knowledge of performance
vi	Practice methods
b	Factors Affecting Performance
i	Anxiety and arousal
ii	Attention and concentration
iii	Motivation and self-confidence
iv	Goal setting
v	Imagery and mental practice
vi	Personality
vii	Aggression
c	Application of Stress Management in Sport
i	The nature of stress
ii	Stress management

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part VIII Social Aspects of PE, Sport and Recreation	
a	Olympic Movement and Olympism
i	Philosophical foundations, history and development of the Olympic Games
ii	Olympic Movement and Olympism
iii	China's involvement in the Olympic Movement
iv	Challenges to the Olympic Movement and Olympism
b	International Organisations, Major Games and Major International Competitions
i	International Olympic Committee and International Sports Federations
ii	Olympic Games and other major games
iii	Major international competitions
c	China's Sporting Culture
i	China's sporting culture
ii	All China Games
d	Sport and Society
i	Sport for all and sport for the elite
ii	Amateurs and professionals
iii	Competition
iv	Drugs in sport
v	Violence in sport
vi	Politics and sport
vii	Media and sport
e	Factors Influencing Participation in Sport and Recreation
i	Personal factors
ii	Family factors
iii	Social factors
iv	Cultural factors
v	Political factors
vi	Environmental factors

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part IX Sport and Recreation Management	
a	Concepts on Sport and Recreation Management
i	The management process
ii	Facilities and equipment
iii	Funding
iv	Staffing
v	Time factors
b	Programme Organisation
i	Competition systems
ii	Organisation of events of physical activity
c	Legal Issues in PE, Sport and Recreation
i	Liability in PE and sport activities
ii	Negligence in PE and sport activities

Table 2.1 Curriculum content of the Physical Education Elective (contd)

Part X	Practicum
a	To engage in active and healthy living: body maintenance, self-enhancement and care for the community
i	design, implement, evaluate and adapt relevant plans in real-life situations
b	Specifically, students are required to
i	do physical fitness training
ii	participate in at least two physical activities
iii	organise school or community recreation/sport programmes
iv	address current issues in PE, sport and recreation

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Chapter 3 Curriculum Planning

This chapter provides guidelines to help schools and teachers to develop a flexible and balanced curriculum that suits the needs, interests and abilities of their students and the context of their school, in accordance with the central framework provided in Chapter 2.

3.1 Guiding Principles

(a) Connecting school-based curriculum development to the central curriculum

The curriculum framework presented in Chapter 2 is open and flexible. Schools are expected to adapt the organisation of the learning content, to provide optimal learning experiences to students, taking account of students' needs, interests and abilities, teachers' readiness and the school context.

(b) Breadth and depth

The curriculum should cover a wide range of topics to provide students with a balanced learning experience which enables them to develop equally well in various related disciplines, in the cognitive and affective domains, in theoretical and applied learning, and in both their knowledge base and generic skills. It should also enable students to study some curriculum content in greater depth. Students should be encouraged to choose the topics that they study in greater depth in line with their interests and aspirations.

(c) Catering for students with different abilities

Learners' characteristics and previous experience need to be closely observed. The curriculum should on the one hand give students equal opportunities to learn all the essential elements, and on the other hand, provide further challenges to the more capable and remedial support to the less able.

(d) Integrating conceptual learning with real-life experience

Conceptual learning in the subject should be closely linked to real-life experience. Students may derive problems for study from their real-life experience, and apply what they have learnt in class to real-life issues.

(e) Integrating assessment with learning

Assessment should be regarded as an essential component of the curriculum that needs to be integrated with learning. The use of a variety of modes, whether summative or formative, can generate a wealth of student performance data for assessing student learning, providing feedback to learners, heightening motivation and conducting curriculum review.

3.2 Time Allocation

(a) Lesson time allocation across S4, S5 and S6

There may be slight variations in the lesson time allocated to the PE Elective depending on the number of elective subjects students take. There will be a total of about 2,500 hours⁴ for class teaching in the three senior secondary years. In general when students take two or three elective subjects, about 10% of the total lesson time (i.e. 250 hours) should be allocated to each of these elective subjects. Also, since students will sit for a public examination in S6, the recommended distribution of lesson time across S4, S5 and S6 should be around 95, 95 and 60 hours.

(b) Lesson time allocation across the nine theoretical learning parts

Depending on the learners' characteristics, needs, interests and inclinations, the lesson time allocated to a particular part may vary to maximise learning for the whole class or individual students. For example, schools may use a portion of the lesson time to conduct teacher-directed studies in which groups work on issues or tasks of varying difficulty. This is illustrated more fully in Chapter 4.

(c) Time-tabling the theoretical parts that involve practical/field work

The time-table for the subject should be flexible, especially for those theoretical parts that involve considerable practical/field work. For example, when studying "Sport and Recreation Management" (Part XI), students may be engaged in organising school sport activities which are likely to be conducted after school, on holidays, during the post examination period or as a whole-day event, e.g. an athletics meet or a swimming gala.

(d) Time-tabling the practicum (Part X)

Given its nature, the time-table for the practicum can be very flexible. There can be stand-alone practicum periods weekly or bi-weekly, or an individualised work schedule for required tasks. To help students to acquire sufficient real-life experience to inform later theoretical studies, it seems appropriate to allocate more lesson time to the practicum in S4.

⁴ The lesson time for Liberal Studies and each elective subject is 250 hours (or 10% of the total allocation time) for planning purpose, and schools have the flexibility to allocate lesson time at their discretion in order to enhance learning and teaching effectiveness and cater for students' needs.

"250 hours" is the planning parameter for each elective subject to meet local curriculum needs as well as requirements of international benchmarking. In view of the need to cater for schools with students of various abilities and interests, particularly the lower achievers, "270 hours" was recommended to facilitate schools' planning at the initial stage and to provide more time for teachers to attempt various teaching methods for the NSS curriculum. Based on the calculation of each elective subject taking up 10% of the total allocation time, 2500 hours is the basis for planning the 3-year senior secondary curriculum. This concurs with the reality check and feedback collected from schools in the short-term review, and a flexible range of 2400±200 hours is recommended to further cater for school and learner diversity.

As always, the amount of time spent in learning and teaching is governed by a variety of factors, including whole-school curriculum planning, learners' abilities and needs, students' prior knowledge, teaching and assessment strategies, teaching styles and the number of subjects offered. Schools should exercise professional judgement and flexibility over time allocation to achieve specific curriculum aims and objectives as well as to suit students' specific needs and the school context.

3.3 Progression

To cater for learner differences and make the best use of available resources, a flexible approach to planning the curriculum is highly recommended. Three approaches are outlined below for teachers' reference.

(a) Considering the complexity of study content

The nine theoretical parts of the curriculum content have been presented in a particular sequence that implies progression from less complicated learning tasks to more complicated ones, and from the development of general knowledge to application, integration, analysis and eventually the practical use of knowledge. The sequence suggested below will enable students to explore their interests in S4, and develop good understanding of the subject for effective progression to S5 and S6.

- “History and Development” (Part I) and “Human Body” (Part II) are deemed to be fundamental.
- “Movement Analysis” (Part III), “Fitness and Health” (Part IV), “Training Methods” (Part V), “Sports Injuries” (Part VI) and “Psychological Skills” (Part VII) are applications of knowledge for self-enhancement. These parts can be introduced to students in any order, provided that the following factors have been considered: the background and prior knowledge of the students, the related modules being taught in other subjects and their relevance to the current PE programme and sports events in the school or community.
- “Social Aspects” (Part VIII) and “Sport and Recreation Management” (Part IX) are relatively more complex areas and should be taught in the later years of senior secondary. However, depending on the particular emphasis of the school-based curriculum, these two parts can also be broken down into several smaller units and taught in different years in senior secondary.

(b) Considering learner concerns

The sequence of learning for the nine theoretical parts may also be arranged to take into account learners' concerns of various kinds pertaining to body maintenance, self enhancement or care for the community.

- Body maintenance - “Human Body” (Part II), “Fitness and Health” (Part IV) and “Sports Injuries” (Part VI) relate to body maintenance (and some basic concerns in an active and healthy lifestyle). It seems reasonable, therefore, to introduce them first.
- Self enhancement - “Movement Analysis” (Part III), “Training Methods” (Part V) and “Psychological Skills” (Part VII) relate to skill acquisition and performance, which is likely to raise interesting and meaningful issues for students, particularly those who are involved in competitive sports at inter-school or community level. It seems logical, though not essential for these parts to be studied after learning the fundamental knowledge in “Human Body” (Part II), “Fitness and Health” (Part IV) and “Sports Injuries” (Part VI).
- Care for the community - “History and Development” (Part I), “Social Aspects” (Part VIII) and “Sport and Recreation Management” (Part IX) touch on the values, culture, organisation in PE, sport and recreation. These topics are more complicated and require more critical thinking in discussion and thus may be taught at a later time.

(c) A thematic or problem-based approach

A less discipline-based design is used to break the nine theoretical parts into smaller units and link them to different themes or problems so that study progresses in a natural way. Two examples are provided below for reference:

- Example 1 – Using an event/activity such as “An Athletics Meet” as a theme, students may be introduced to studying units such as “Roles and values of school PE and sport”, “Organisation of an athletics meet”, “Training for aerobic and anaerobic events”, “Coping with pre-competition anxiety” and “Factors affecting performance in the long jump and throwing events”.
- Example 2 – Students’ interest may be aroused by using current issue such as “Trendy slimness” as the starting point for discussing “Weight control”, “Factors affecting participation in slimming exercises”, “Legal issues related to commercial fitness programmes” and “Safety concerns in slimming exercises”.

It is difficult to say which approach is superior. Teachers can choose the approach that suits their students best. They can modify the approaches outlined above, or adopt any other approach they think appropriate.

It should be noted that the practicum (Part X) involves the application of the theoretical learning in Parts I to IX, with the aim of promoting an active and healthy lifestyle. This should be dealt with throughout senior secondary and be connected to General PE.

3.4 Curriculum Planning Strategies

(a) Central Curriculum and School-based Curriculum

The central curriculum provides guidelines on developing the school-based senior secondary PE Elective curriculum. It describes the curriculum aims and learning objectives, curriculum content, implementation strategies and evaluation issues. It also spells out the generic skills, values and attitudes that students need to acquire or develop. Schools are expected to design school-based curricula according to the central guidelines taking into account the characteristics and needs of their students.

(b) Collaboration of various kinds

Opportunities for different kinds of collaboration should be examined. For example, teachers from different schools in the same district or educational body may consider offering all or some parts of the PE Elective jointly. This strategy can be particularly useful for making the practicum a fruitful experience for students.

(c) Cross-curricular links

Cross-curricular links are inherent in PE studies. Students may be provided with opportunities to make connections with other subjects when studying topics in the PE Elective. Some examples are:

- The organisation of an athletics meet may involve language and communication skills (e.g. the opening speech and event announcements) and art experience (e.g. the design of

- posters and programme booklets).
- Collaboration with teachers of other subjects may further enhance students' understanding of certain topics (e.g. teaching "Biomechanics" with physics teachers, and teaching "Human Body" with biology teachers).

(d) Applied Learning Studies

Based on their interests and career aspirations, some students may opt for PE-oriented Applied Learning Studies in S5 and focus more on practical knowledge about sports coaching and management (see the *Senior Secondary Curriculum Guide* (CDC, 2009) for detailed information). It may be necessary for schools to organise their PE Elective curriculum in such a way that their students acquire knowledge of fundamental topics at S4 and subsequently switch to PE-oriented Applied Learning Studies at S5. Teachers may consider selecting related topics from different parts to offer a tailor-made programme to support such a transition.

(e) Resources

The use of a variety of resources and related learning and teaching approaches will promote better student learning. This will be illustrated more fully in Chapter 6. School resources may be categorised as follows:

- Information resources: Learning and teaching resources such as textbooks, learning and teaching packages produced by the EDB and others, and information from websites;
- Sports facilities: Use of community sports facilities;
- Participation and service opportunities: Learning experiences inside and outside school including participation in events, organising competitions, umpiring, coaching, etc.

(f) Integration of knowledge and practical work

PE integrates knowledge and practical work. This mode of learning in PE – integrating "knowing and doing" – contributes to active and healthy living. The curriculum not only helps students to maintain their health and enhance their performance, but also encourages them to care for others and the community at large.

3.5 Curriculum Management

(a) Understanding the curriculum and students' needs

- Teachers will explain to students the aims and structure of the curriculum before students choose their areas of study for S4.
- Teachers will explain to students the multiple pathways through the curriculum, and the possible switching to the study of other subjects (such as physics and biology) at S5.

(b) Curriculum planning

- Schools and teachers are encouraged to review and plan the curriculum flexibly and make appropriate re-adjustments when necessary.
- The school curriculum development committee should ensure that the curriculum planning and implementation of the PE Elective match the vision and mission of the school.

- Apart from the curriculum content, issues such as student intake, time-tabling, personnel and resources should be considered in curriculum planning.
- In addition to the school timetable, non-structured learning time during weekends or school holidays should be considered.
- Subject to the availability of staff, the school may make use of teachers' varied expertise by calling on different teachers to teach different topics to the same class according to their strengths.

(c) Capacity building and professional development

- Professional development is important for keeping teachers abreast of subject knowledge for effective learning and teaching.
- Post-course sharing among teachers is valuable for professional enhancement.
- Collaborative lesson planning, classroom observation and evaluation can lead to improvements in learning and teaching.

(d) Resource development

- Resources such as learning and teaching packages and textbooks should be updated to facilitate learning and teaching.
- Intra- and inter-school sharing of resources leads to their more effective use and development.

(e) Managing change

- A structured curriculum management plan enhances curriculum implementation. Good documentation and action plans help in monitoring progress and evaluating the effectiveness of the programme, as they provide evidence to ensure its quality and enhance student learning.

(f) Roles of different personnel

- Senior secondary PE teachers: Teachers are at the frontline of learning and teaching. In working as students' mentors, facilitators, coaches, teachers and counsellors, they must continue to update their professional and subject knowledge. Apart from working closely with the school curriculum development committee, they should work as a team towards curriculum innovation, improving learning and teaching (e.g. lesson preparation and lesson observation) and good assessment practices. They should be able to view the subject from a global and regional perspective, and be proactive in finding out about other schools' practices.
- PE panel or KLA chairpersons: They coordinate curriculum matters inside and outside school, such as the use of resources and curriculum innovation. They are also responsible for ensuring that there is well-planned progression from basic education to the senior secondary curriculum. In particular, they are responsible for coordinating the PE Elective curriculum with the General PE curriculum to maximise student learning.
- School heads: In line with the school vision and mission, heads oversee whole school curriculum development and implementation, and direct and initiate curriculum changes.

Chapter 4 Learning and Teaching

This chapter provides guidelines for effective learning and teaching of the PE Elective curriculum. It is to be read in conjunction with Booklet 3 in the *Senior Secondary Curriculum Guide* (2009), which provides the basis for the suggestions set out below.

4.1 Knowledge and Learning

The PE Elective involves interdisciplinary study which helps students to develop a strong knowledge base in both the “science” and “the humanities and social science” domains. Teachers should bear in mind that the link between theory and practice is central in learning this subject.

Teachers should also note that physical skill enhancement and health maintenance are important learning outcomes of this elective. Students should therefore be provided with sufficient learning experiences to develop appropriate generic skills, values and attitudes to support their pursuit of physical activities in a safe, enjoyable and fruitful way.

Knowledge can be developed in a variety of ways. To maximise teaching effectiveness in PE, a wide range of learning and teaching approaches or activities should be adopted. At least three teaching approaches may be used in teaching PE – direct instruction, enquiry and knowledge co-construction – and these are elaborated in section 4.3. Appendix 1 lists a number of learning and teaching activities which are illustrated with examples.

The key message in this chapter is that teachers can promote students’ learning best by playing a variety of roles –as knowledge transmitters, facilitators and mentors – according to the context.

4.2 Guiding Principles

The following principles should be taken into consideration for effective learning and teaching in the PE Elective. More specific issues related to learning approaches and strategies are discussed in sections 4.3, 4.4 and 4.5.

- Building on prior knowledge and experience

Learning should build on students’ prior knowledge and experience. Learning records in General PE and students’ fitness evaluations are useful information in this respect.

- Understanding learning targets

Each learning activity should be designed with learning targets that are specific, measurable or observable and achievable within the time specified. During the lesson planning stage, teachers should state clearly what students will acquire in the various domains.

- Teaching for understanding

Teachers should aim to help students develop understanding, not just memorise facts. For instance the use of concept maps and flow charts can be helpful to indicate how concepts and events are interlinked.

- Teaching for independent learning

Skills to develop independence in learning, such as reading to learn, self-directed research, presentations of findings and others, should be taught to help students take responsibility for their learning and become self-directed learners.

- Enhancing motivation

Students should be motivated to learn. Teachers should arouse students' interest and introduce activities which they see as relevant to their daily lives. Extrinsic rewards should be used cautiously.

- Effective use of resources

A wide range of learning and teaching resources should be used and stored effectively. Local and overseas websites on PE should be identified, properly annotated and made known to students for browsing.

- Maximising engagement

To keep students "on task" and focused on learning, appropriate learning activities should be designed to facilitate learning. For this purpose, teachers should also plan beforehand how to use equipment and supporting materials, especially in practical work sessions, in the most effective and interesting ways.

- Aligning assessment and feedback with learning

Assessment should be regarded as an integral part of learning and teaching. Various types of assignment should be used to help students identify their strengths and weaknesses; and teachers should give appropriate and timely feedback, both quantitative and qualitative, for improving performance.

- Catering for learner differences

To cater for the diverse interests, characteristics and strengths of students, a wide range of teaching strategies should be employed.

- Learning by doing

Students should be actively involved in using or testing theories in authentic situations. They should be involved in hands-on activities, experiments and/or fieldwork that enable them to gain first-hand experience and reflect on this. This leads not only to effective learning, but also to increased interest and self-confidence.

- Integrating PE with other learning experience – physical development (OLE–PD)

All senior secondary students are entitled to OLE-PD which constitutes at least 5% of the total lesson time. OLE-PD and the PE Elective complement each other resulting in strengthening the practice-theory linkage of the subject.

4.3 Approaches and Strategies

As mentioned in section 4.1, three learning and teaching approaches – direct instruction, enquiry and knowledge co-construction – are recommended for use in this subject. In Table 4.1, these approaches are placed on a continuum, with the respective teacher roles, the focus of the learning outcomes and the characteristics of learning tasks listed. Teachers should note that these three approaches are not mutually exclusive but can supplement each other. Each has its strengths and limitations, and they can be adopted in daily teaching to maximise learning and teaching effectiveness.

Table 4.1 A continuum of teaching approaches

Direct Teaching	←-----→		Indirect Teaching
Direct instruction	Enquiry		Knowledge co-construction
<ul style="list-style-type: none"> • <u>Teacher role:</u> knowledge transmitter • <u>Learning outcomes:</u> acquire content knowledge, enhanced by information technology • <u>Learning tasks:</u> teacher-determined, mainly in the format of lectures, demonstrations, and feedback subsequent to drill / practice / exercises 	<ul style="list-style-type: none"> • <u>Teacher role:</u> facilitator • <u>Learning outcomes:</u> acquire content knowledge and develop thinking skills, enhanced by authenticity and multiple perspectives • <u>Learning tasks:</u> exploratory; critical, dealing with issues arising from life events; mainly in the format of discussion, debates, and student presentations 	<ul style="list-style-type: none"> • <u>Teacher role:</u> facilitator • <u>Learning outcomes:</u> acquire content knowledge and develop data collection and processing skills, enhanced by “hands-on” experience • <u>Learning tasks:</u> exploratory; empirical; testing or applying theories; mainly in the form of surveys, model construction, experiments and student presentations 	<ul style="list-style-type: none"> • <u>Teacher role:</u> mentor • <u>Learning outcomes:</u> identify and fulfil personal needs, enhanced by learning with community support • <u>Learning tasks:</u> loosely organised; mainly in the form of field work, directed studies, tutorials and consultations

4.3.1 Direct instruction

At one end of the continuum is direct instruction – a teacher-centred approach in which teachers transmit knowledge to students. This entails teachers in making all or most of the decisions in the learning process. Through direct instruction, teachers reactivate relevant prior experience, present new knowledge in a relatively straightforward way, check on understanding or progress, and provide students with timely and adequate feedback. Direct instruction can be very effective, particularly when:

- students find the learning content difficult to understand;
- teachers aim to help students develop a basic framework to guide subsequent learning and teaching;
- teachers intend to convey a clear, precise message to students;
- teachers aim to attract students’ attention or arouse their interest through persuasion;
- safety is a concern.

However, in PE, the development of positive values and attitudes, and higher-order thinking skills is also important. Direct instruction is essential but is insufficient in some learning and teaching situations. Table 4.2 provides an example of teaching the topic “Circuit Training” (Part V) using direct instruction augmented by discussion and practical work.

Table 4.2 Direct instruction augmented by discussion and practical work

Suggested learning activities for the topic “Circuit training”
<ul style="list-style-type: none">• The teacher recapitulates the basic principles of training (overload, progression, specificity, reversibility) via a verbal quiz/questioning.• The teacher illustrates the following concepts with well designed slides and charts: definition and purposes of circuit training; physiological responses to circuit training; guiding principles for designing circuit training.• Individual work: Each student designs a circuit training programme.• Pair work: Students share and critically appraise partners’ programmes.• The class selects one of the programmes and several students are assigned to organise and conduct the programme in the next lesson.• Individual work: For the selected circuit training programme, students record simple physiological parameters that can reflect the training effects and the theory behind it (e.g. use of heart rate monitor to collect heart rate data), and complete a questionnaire to capture their bodily responses to the programme, opinions on the design and practical work, and the usefulness of peer assessment.• The teacher debriefs by consolidating the views from students, explaining and interpreting the physiological parameters that have been recorded and revisiting the key ideas of circuit training.

4.3.2 Enquiry approach

The enquiry approach is more student-centred and involves students in finding out information for themselves and then working on it to turn it into knowledge. Teachers provide guidelines and supporting materials to assist students to go through an exploration process. The enquiry approach is particularly effective when:

- students are capable of getting information by themselves;
- teachers intend to help students develop generic skills, such as skills in critical thinking, communication, collaboration, information technology, problem-solving and study;
- teachers aim to help students develop a feeling of ownership in the learning process

In the enquiry approach, we can differentiate issue-enquiry from scientific inquiry as follows:

(a) Issue-enquiry

Table 4.3 provides an example of teaching the topic “Roles and values of PE, sport, recreation and leisure” (Part I) using the issue-enquiry approach.

Table 4.3 An issue-enquiry approach

Suggested learning activities for the topic: “Roles and values of PE, sport, recreation and leisure”
<ul style="list-style-type: none">• The teacher engages students in discussion by asking: “<i>Would someone share with us an enjoyable experience in participating in PE, sport, recreation or leisure activities?</i>” (open questions/experience sharing).• The teacher raises an issue for students’ enquiry, such as: “<i>If PE was not offered in the Hong Kong school curriculum, what would be the impact on personal development, socialisation and international relationships?</i>” (Groups discuss PE, sport, recreation or leisure respectively; and the teacher provides each group with a <i>fact sheet</i> on the provision of PE, sport, recreation or leisure in Hong Kong.)• Students present group reports and the teacher draws conclusions.• Students identify three key learning points/insights from the lesson, share them with classmates and record them in their reflective journals.• Students (group/individual work) EITHER<ul style="list-style-type: none">– design a TV commercial script to promote PE, sport, recreation or leisure in Hong Kong, OR– survey the views of different groups (e.g. parents, friends, teachers of other subjects on the topic).

Teachers may note in connection with the above example that:

- The teacher did not explicitly teach the roles and values of PE, sport, recreation and leisure, and their respective impact on forming a dynamic and healthy society. Instead, a problem scenario was presented for students to consider.
- Students needed to define the problem, listen to other students’ views, present their ideas, and defend their assertion with data/personal experience.
- Students had to assess different alternatives and weigh up their relative strengths and limitations.

- A shared conclusion was arrived at through a democratic process – with equal participation and recognition of and respect for different perspectives.

(b) Scientific-inquiry

Table 4.4 provides an example of teaching the topic “Movement analysis – projectile motion” using a scientific-inquiry approach.

Table 4.4 A scientific-inquiry approach

Suggested learning activities for the topic “Movement analysis – projectile motion”
<p><i>(In General PE, students work on stations practising the long jump, high jump and shot put, the following data were recorded using a video shooting device, stop watch and measuring tape: horizontal and vertical distance displaced, height of release, angle of release and velocity of release.)</i></p> <ul style="list-style-type: none"> • The teacher raises a question: “<i>In what ways can we improve our performance in the long jump, high jump and shot put?</i>” and focuses attention on the factors affecting projectile motion. • The teacher demonstrates how to capture the height of release (H), angle of release (A) and velocity of release (V) from video clips. • In groups, students gather data on eight to 10 video clips of the long jump/high jump/shot put (H, A and V) for use. • The teacher demonstrates how to predict vertical/horizontal displacement with H, A, V using computer software (based on relevant formulae and other constants such as gravity and air resistance) • In groups, students <ul style="list-style-type: none"> – observe changes in predicted vertical/horizontal displacement and discuss the effects of H, A and V, as well as gravity and air resistance, on projectile motion. – compare the predicted and the actual vertical/horizontal displacement and suggest reasons for the discrepancies. • Each student writes a short paper of about 300 words to make suggestions for improvement based on one video clip of his/her own performance.

From this example, teachers may note that:

- The topic can be effectively taught by direct instruction. However, students may find it more interesting and easier to understand when a scientific-inquiry approach is used.
- Students are expected to develop a serious attitude towards searching for evidence and the skills for theory building, empirical testing of theories, experimental design, proper instrumentation, prudent handling of data and honest reporting.
- In the process, students explored the contribution of several factors to projectile motion, but did not need to deal with complicated calculations and abstract mathematical reasoning.

4.3.3 Knowledge co-construction

Knowledge co-construction in our context refers to identifying personal needs and finding the most appropriate ways to fulfil them with the help of other members of the same learning community. Learning is less structured, happens in authentic contexts and takes place mainly through social interaction. This approach can be very effective, especially when:

- students are capable of studying the learning materials by themselves;
- students know what they need and what works best for them;
- teachers intend to help students develop values and attitudes, and habitual behaviours or better performance to cope with the requirements in authentic situations;
- teachers aim to help students develop ownership of the learning process.

Table 4.5 and 4.6 show how students formulate problems and apply the theories and concepts learnt in the theoretical parts of the curriculum to establish connections and construct knowledge in practicum periods.

Table 4.5 Knowledge co-construction in physical skills development

Example of learning activities for practicum periods (1)
<p>In the practicum, students:</p> <ul style="list-style-type: none">• refine or develop advanced skills in two selected physical activities:<ul style="list-style-type: none">- students observe each other, interact and provide feedback and assistance reciprocally.- students chat among themselves and sometimes with the teacher on what to improve and how to apply principles of movement analysis (Part III) and psychological skills (Part VII) to enhance performance.- students develop learning logs that record detailed information on their learning progress and performance.

Table 4.6 Knowledge co-construction in P-I-E tasks

Example of learning activities for practicum periods (2)
<ul style="list-style-type: none">• Planning<ul style="list-style-type: none">- After sharing the views of peers and the teacher, students identify their own needs, strengths and weaknesses, and develop realistic but challenging plans to achieve the goals.• Implementation<ul style="list-style-type: none">- Students work on their own plans, with teacher's guidance and/or peers' assistance who provide timely knowledge of results and performance, learning cues and instructions, demonstrations, and most importantly, encouragement and social support.- Students keep learning logs, chart their learning progress and identify problems for discussion with the peers or the teacher or other appropriate people in the same learning community.• Evaluation<ul style="list-style-type: none">- Students reflect on their learning experience based on the learning logs and feedback received from the peers and teacher.- The peers and teacher share with students their joy of achievement.

4.4 Interaction

Whatever the approaches or strategies chosen, teachers need to rely on quality interaction to ensure effective learning. Below are some general principles to follow, and Table 4.7 shows two classroom examples.

4.4.1 Effective questioning

Teachers may vary closed and open questions to achieve different purposes. Closed questions, involving “who”, “when”, “where” and “what”, are often used to check understanding; while open “why” and “how” questions are useful for promoting higher-order, critical and creative thinking skills. As far as practicable, open questions should predominate. They provide students with the opportunity to clear up confusions, try out their knowledge and get reactions from others, and to find out what they do know and what they do not know.

4.4.2 Quality feedback

Teachers should give students adequate oral and written feedback to enhance student learning. Quick, concise and encouraging oral feedback helps develop a good rapport. Teachers should give positive and constructive feedback as far as possible, and keep negative feedback to a minimum. Written feedback can be made more personal and touch upon a wide range of topics besides the learning tasks. It should also be detailed to help promote reflection and further exploration.

4.4.3 A motivational climate

Teachers can create a motivational climate by:

- matching learning tasks with students' abilities and interests;
- giving choices to students;
- focusing on personal improvement and mastery of skills;
- arranging flexible grouping to promote self-learning and cooperation;
- using self-referenced evaluation criteria;
- expecting individual differences in the achievement of learning tasks.

Table 4.7 Examples of interaction

Newspaper-cutting assignments
<p><i>Newspaper-cutting assignments are very good exercises for helping students to develop their content knowledge base and improve their writing skills. They also strengthen student-teacher relationships and, in turn, raise students' motivation and ultimately improve their performance.</i></p> <p>To carry them out:</p> <ul style="list-style-type: none">• each student writes a short paragraph of 100 to 200 words to express his/her views on the news;• the teacher responds :<ul style="list-style-type: none">– by sharing his/her thinking with students,– giving comments on students' ideas or ways of presentation.
Timely discussion on current issues and life events during the class
<p><i>It is important that learning should be authentic. Very often, classroom learning sticks too much to textbook and standard topics. Although such arrangements provide students with systematic progress in knowledge-building, they should not preclude timely discussion on the current issues.</i></p> <ul style="list-style-type: none">• Teachers should grasp every opportunity to discuss matters that may inspire students to become active and healthy citizens.• Topics for discussion can range widely, for example:<ul style="list-style-type: none">– a major issue, such as the hosting of the Olympic Games 2008 in Beijing– a smaller issue, such as a personal success in a gymnastic skill reported by a student in the class– something instrumental, such as analysing the pros and cons of using self-talk or imagery to enhance sport performance.• Through these dialogues, collaboration and rapport may be developed leading to effective student-teacher interaction.

4.5 Catering for Learner Diversity

Each student is unique and special, and teachers should view their diversity as a valuable resource. Some strategies for channeling learner diversity into mutually worthwhile and significant learning experiences are suggested below.

4.5.1 Design open-ended learning tasks

Teachers should provide open-ended learning tasks as far as possible. In a class with a wide range of ability and learning styles, students do not always benefit from a “one-size-fits-all” approach. The following scenario illustrates how a teacher can provide room for students to adopt an individual approach to their learning.

Table 4.8 Open-ended learning tasks

Drugs in local sports	
Teacher:	When teaching “Sport and society” in Part VIII, the teacher asks students to carry out an assignment on “Drugs in local sports”, and hints that the subject can be tackled in different ways and that all reasonable answers will be accepted.
Student A:	Student A tackles the issue using research and in-depth analysis, and presents the findings with strong evidence and sound arguments. <i>(Feedback from the teacher: The teacher applauds Student A’s performance in tackling the topic and also encourages him/her to explore the issue of doping in international sporting events.)</i>
Student B:	Student B presents his ideas in a manner that shows personal feelings and concern for the well-being of society. <i>(Feedback from teacher: The teacher praises the merits of Student B’s writing style and arguments, and asks him/her to look at Student A’s assignment and compare the arguments and writing approaches.)</i>
Student C:	Student C gives a simple presentation of the pros and cons of drugs in sport, with limited references. However, it is evident that he has tried his best and made progress when compared with his work on previous assignments. <i>(Feedback from teacher: The teacher acknowledges Student C’s efforts and progress in finishing the task, suggests areas in which stronger evidence could be given for the arguments and introduces some useful websites for further reading.)</i>

4.5.2 Group students for cooperative learning

In a cooperative learning environment, students are not only responsible for their own learning, but also for helping other group members to improve. Teachers are expected to be facilitators, guiding students to explore. Teachers may sometimes identify more able students to be student-teachers. There are a number of cooperative learning structures. An example is shown in Table 4.9.

Table 4.9 Cooperative learning

Nutrition and exercise performance	
Objective:	When teaching “Food and nutrition” in Part IV, the teacher aims to help students understand the relationship between nutrition and exercise performance.
Grouping:	The teacher assigns students to work in groups of four to six. He then gives a discussion paper containing a unique question to each group, such as “How do carbohydrates help athletes in sport?” Each group has three minutes to discuss and note their points on a piece of paper. These are then passed around each group for discussion and the jotting down of views until they are returned to their original groups. The original groups collate the ideas, verify the information and brief the class.

4.5.3 Personalised learning

- Individualised goals

Some students may be stronger in the humanities and social sciences, but find the science part difficult and vice versa. Teachers may mix and match these two groups of students to complement each other’s learning. Peer teaching and cooperative learning are commonly used strategies which have been found to be effective.

- Differential care

Teachers should ensure that opportunities are available for both athletic and non-athletic students. During practical sessions, athletic students may serve as student-teachers for their non-athletic classmates or lead study groups for skill refinement. Teachers may also provide individualised instruction to non-athletic students, while allowing athletic students to undertake P-I-E in their chosen physical activities.

- Graded difficulty levels

Teachers may grade learning tasks or assignments by levels, and provide remedial support to individual students, when necessary. Teachers may also group students with different abilities to try to instil in them a sense of caring and mutual support. Also, given the diverse learning styles of students, teachers may develop a multi-sensory classroom with

visual, auditory and kinaesthetic stimulation through, for example, the use of multi-media technology.

- **Selected focus**

As illustrated in section 3.1 of this guide, flexibility should be given to students to follow their various interests in certain domains and parts of this subject. Such flexibility may take the form of extended programmes, further reading and individualised projects. Students may be encouraged to make the best use of the practicum sessions to refine their physical skills in their chosen physical activities. As far as possible, teachers should help students to personalise their learning to sustain motivation. The practice of P-I-E is a subject-specific example of this in the PE Elective.

Chapter 5 Assessment

This chapter discusses the role of assessment in PE Elective learning and teaching, the principles that should guide assessment of the subject and the need for both formative and summative assessment. It also provides guidance on internal assessment and details regarding the public assessment of the PE Elective. Finally, information is given on how standards are established and maintained, and how results are reported with reference to these standards. General guidance on assessment can be found in the *Senior Secondary Curriculum Guide* (SSCG) (CDC, 2009).

5.1 The Roles of Assessment

Assessment is the practice of collecting evidence of student learning. It is a vital and integral part of classroom instruction, and serves several purposes and audiences.

First and foremost, it gives feedback to students, teachers, schools and parents on the effectiveness of teaching and on students' strengths and weaknesses in learning.

Second, it provides information to schools, school systems, government, tertiary institutions and employers to enable them to monitor standards and to facilitate selection decisions.

The most important role of assessment is in promoting learning and monitoring students' progress. However, in the senior secondary years, the more public roles of assessment for certification and selection come to the fore. Inevitably, these imply high stake uses of assessment since the results are typically used to make critical decisions about individuals.

The HKDSE provides a common end-of-school credential that gives access to university study, work, and further education and training. It summarises student performance in the four core subjects and in various elective subjects, including both discipline-oriented subjects (including the PE Elective) and the new Applied Learning courses. It needs to be interpreted in conjunction with other information about students provided in the Student Learning Profile.

5.2 Formative and Summative Assessment

It is useful to distinguish between the two main purposes of assessment, namely “assessment *for* learning” and “assessment *of* learning”.

“Assessment *for* learning” is concerned with obtaining feedback on learning and teaching, and utilising this to make learning more effective and introduce any necessary changes to teaching strategies. We refer to this kind of assessment as “formative assessment” because it is all about forming or shaping learning and teaching. Formative assessment should take place on a daily basis and typically involves close attention to small “chunks” of learning.

“Assessment *of* learning” is concerned with determining progress in learning, and is referred to as “summative” assessment, because it is all about summarising how much learning has taken place. Summative assessment is normally undertaken at the conclusion of a significant period of instruction (e.g. at the end of the year or of a key stage of schooling) and reviews much larger “chunks” of learning.

In practice, a sharp distinction cannot always be made between formative and summative assessment, because the same assessment can in some circumstances serve both formative and summative purposes. Teachers can refer to the SSCG for further discussion of formative and summative assessment.

Formative assessment should be distinguished from continuous assessment. The former refers to the provision of feedback to improve learning and teaching based on formal or informal assessment of student performance, while the latter refers to the assessment of students' on-going work and may involve no provision of feedback that helps to promote better learning and teaching. For example, accumulating results in class tests carried out on a weekly basis, without giving students constructive feedback, may neither be effective formative assessment nor meaningful summative assessment.

There are good educational reasons why formative assessment should be given more attention and accorded a higher status than summative assessment, on which schools tended to place a greater emphasis in the past. There is research evidence on the beneficial effects of formative assessment when used for refining instructional decision-making in teaching and generating feedback to improve learning. For this reason, the CDC report *Learning to Learn – The Way Forward in Curriculum Development* (CDC, 2001) recommended that there should be a change in assessment practices, with schools placing due emphasis on formative assessment to make assessment *for* learning an integral part of classroom teaching.

5.3 Assessment Objectives

The assessment objectives for PE are closely aligned with the curriculum framework and the broad learning outcomes presented in earlier chapters.

The learning objectives to be assessed in the PE Elective are listed below:

- demonstrate knowledge and understanding of the concepts in the Physical Education curriculum
- use theories and principals regarding self enhancement, body maintenance, and caring for the community
- communicate ideas using PE terminology
- demonstrate attainment in physical fitness
- demonstrate movement skills
- apply individual/team tactics in game/competition situations

5.4 Internal Assessment

This section presents the guiding principles that can be used as the basis for designing internal assessment and some common assessment practices for the PE Elective for use in schools. Some of these principles are common to both internal and public assessment.

5.4.1 Guiding principles

Internal assessment practices should be aligned with curriculum planning, teaching progression, student abilities and the school context. The information collected will help to

motivate, promote and monitor student learning, and will also help teachers to find ways of promoting more effective learning and teaching.

(a) Alignment with the learning objectives

A range of assessment practices should be used to assess the achievement of different learning objectives for whole-person development and to cover skills, knowledge, fitness, and values and attitudes. The weighting given to different areas in assessment should be discussed and agreed among teachers. The assessment purposes and criteria should also be discussed and agreed and then made known to students so that they have a full understanding of what is expected of them.

(b) Catering for the range of student ability

Assessment practices incorporating different levels of difficulty and diverse modes should be used to cater for students with different aptitudes and abilities. This helps to ensure that the more able students are challenged to develop their full potential and the less-able ones are encouraged to sustain their interest and succeed in learning.

(c) Tracking progress over time

As internal assessment should not be a one-off exercise, schools are encouraged to use practices that can track learning progress over time (e.g. portfolios). Assessment practices of this kind allow students to set their own incremental targets and manage their own pace of learning, which will have a positive impact on their commitment to learning.

(d) Timely and encouraging feedback

Teachers should provide timely and encouraging feedback through a variety of means, such as constructive verbal comments during classroom activities and written remarks on assignments. Such feedback helps students to sustain their momentum in learning, and to identify their strengths and weaknesses.

(e) Making reference to the school's context

As learning is more meaningful when the content or process is linked to a setting which is familiar to students, schools are encouraged to design some assessment tasks that make reference to the school's own context (e.g. its location, relationship with the community and mission).

(f) Making reference to current progress in student learning

Internal assessment tasks should be designed with reference to students' current progress, as this helps to overcome obstacles that may have a cumulative negative impact on learning. Teachers should be mindful in particular of concepts and skills which form the basis for further development in learning.

(g) Feedback from peers and self-assessment

In addition to giving feedback, teachers should also provide opportunities for peer assessment

and self-assessment in student learning. The former enables students to learn among themselves, and the latter promotes reflective thinking which is vital for students' lifelong learning.

(h) **Appropriate use of assessment information to provide feedback**

Internal assessment provides a rich source of data for providing evidence-based feedback on learning in a formative manner.

5.4.2 Internal assessment practices

A range of assessment practices, such as homework, oral questioning and feedback, short quizzes, observation checklists and projects suited to the PE Elective should be used to promote the attainment of the various learning outcomes. However, teachers should note that these practices should be an integral part of learning and teaching, not “add-on” activities.

Homework

Feedback on homework provides a channel for teachers to ensure that their students are on the right track. For example, in order for students to see the societal implications of issues related to PE, sport and recreation, they may be asked to write a short paragraph (say, 100 to 200 words) to express their views on some newspaper articles relevant to the subject. Teachers can then respond by commenting on the students' ideas or the ways in which they present them and by sharing their thinking on the issue. This not only helps students develop their content knowledge and improve their writing skills, but also strengthens student-teacher relationships, which in turn can raise students' motivation and ultimately promote effective learning.

Oral questioning and feedback

Oral questioning with feedback needs not be seen as a test limited to the language classroom. It can be helpful for assessment in other subjects. It enables teachers to discuss matters in depth with able students, to tease out the meaning of obscure statements, and to find out reasons for conclusions. In the PE Elective in particular, it can be useful in working with students who have difficulty in learning physical skills – both as an assessment technique and a way of promoting learning. Teachers are encouraged to try using oral assessment as a valuable supplement to conventional assessment methods.

Short quizzes

Teachers can schedule short quizzes frequently to monitor students' learning and progression (and possibly adjust their teaching approaches in the light of the results). The quizzes can include not just closed questions but also open-ended ones which help students to think and develop a reasoned argument.

Written Assessments

Written assessments serve to assess the competencies and knowledge students have acquired in the course of studying the PE Elective. Apart from remembering and understanding knowledge, students are also required to demonstrate the extent to which they can use their knowledge to apply, analyse, evaluate and create in familiar and novel situations. Here are some examples demonstrating the six levels of cognitive attainment on which students will be assessed.

Cognitive level	Examples
Remember	Describe the FITT principle for sports training design.
Understand	Illustrate the FITT principle with appropriate examples.
Apply	Adjust the frequency, intensity, time and type of exercise for given situations.
Analyse	Compare the similarities and differences between different training programmes in their frequency, intensity, time and type of exercise.
Evaluate	Evaluate a training programme taking into consideration the FITT principle and other relevant factors.
Create	Design a training programme taking into consideration the FITT principle and other relevant factors.

Note: The FITT principle refers to the four components of training method: **F**requency, **I**ntensity, **T**ime and **T**ype

Observation checklists

Observation checklists provide a means for teachers to assess the achievement of students in physical activities. The skills and tactics involved in different physical activities vary and students' progress can be monitored and assessed through checkpoints in the checklists. Such lists also give students a clear indication of their progress and can be used as a basis on which to assist them to improve their learning.

Projects

A project is any piece of extended work from which the constraints of lesson time have been largely removed. In this subject, the areas for investigation can focus on, for example: general sport skills; the humanities and social science foundations in PE; science foundations in PE; and values and attitudes in PE. Students are also encouraged to carry out investigations which cross one or more areas in the PE Elective. Asking students to carry out project work provides an opportunity for them to study a topic of interest in depth. Teachers may wish to draw the following steps in the process to students' attention:

- Clarifying the areas of interest
- Establishing a framework for enquiry
- Finding out and selecting resource materials
- Organising data
- Presenting findings

Assessment of project learning should cover all the above areas, and teachers should provide feedback throughout the whole process on an individual basis.

Student Portfolios

Portfolios are records of student learning containing their work over a period of time. To ensure that portfolios are a useful tool conducive to "assessment for learning", teachers may periodically meet individual students to look at their learning progress; or make written comments and suggestions as appropriate. In addition, students may also invite peers and family members to provide feedback on their portfolios.

5.5 Public Assessment

5.5.1 Guiding principles

Some principles guiding public assessment are outlined below for teachers' reference.

(a) Alignment with the curriculum

The outcomes that are assessed and examined through the HKDSE should be aligned with the aims, objectives and intended learning outcomes of the senior secondary curriculum. To enhance the validity of public assessment, the assessment procedures should address the range of valued learning outcomes, and not just those that are assessable through external written examinations.

The public assessment for the PE Elective aligns with the curriculum aims, objectives and intended outcomes. With both the written and practical examinations, a wider range of different abilities are being assessed.

(b) Fairness, objectivity and reliability

Students should be assessed in ways that are fair and are not biased against particular groups

of students. A characteristic of fair assessment is that it is objective and under the control of an independent examining authority that is impartial and open to public scrutiny. Fairness also implies that assessments provide a reliable measure of each student's performance in a given subject so that, if they were to be repeated, very similar results would be obtained.

(c) Inlusiveness

The assessments and examinations in the HKDSE need to accommodate the full spectrum of student aptitude and ability.

Given this guiding principle, the public assessment will be designed to include different cognitive levels in the knowledge domain – remembering, understanding, application, analysis, evaluation and creation – so that no student will be excluded. As regards the practical skill assessment, students can choose to take part in physical activities they are familiar with and in which they are proficient.

(d) Standards-referencing

The reporting system is 'standards-referenced', i.e. student performance is matched against standards, which indicate what students have to know and be able to do to merit a certain level of performance.

(e) Informativeness

The HKDSE qualification and the associated assessment and examinations system provide useful information to all parties. First, it provides feedback to students on their performance and to teachers and schools on the quality of the teaching provided. Second, it communicates to parents, tertiary institutions, employers and the public at large what it is that students know and are able to do, in terms of how their performance matches the standards. Third, it facilitates selection decisions that are fair and defensible.

5.5.2 Assessment design

The table below shows the assessment design of the subject with effect from the 2016 HKDSE Examination. The assessment design is subject to continual refinement in the light of feedback from live examinations. Full details are provided in Regulations and Assessment Frameworks for the year of the examination and other supplementary documents, which are available on the HKEAA website (www.hkeaa.edu.hk/en/hkdse/assessment/assessment_framework/).

Component	Part	Weighting	Duration
Public Examination	Paper 1 Multiple-choice & short questions	42%	2 hours 15 minutes
	Paper 2 Long questions	18%	1 hour 15 minutes
	Paper 3 Practical examination	40%	---

5.5.3 Public examinations

Different kinds of item are used to assess students' performance in a broad range of skills and

abilities. The types of items include multiple-choice questions, short questions and long questions. Schools may refer to the live examination papers regarding the format of the examination and the standards at which the questions are pitched.

5.5.4 Standards and Reporting of results

Standards-referenced reporting is adopted for the HKDSE. What this means is that candidates' levels of performance are reported with reference to a set of standards as defined by cut scores on the mark scale for a given subject. Standards referencing relates to the way in which results are reported and does not involve any changes in how teachers or examiners mark student work. The set of standards for a given subject can be represented diagrammatically as shown in Figure 5.1.

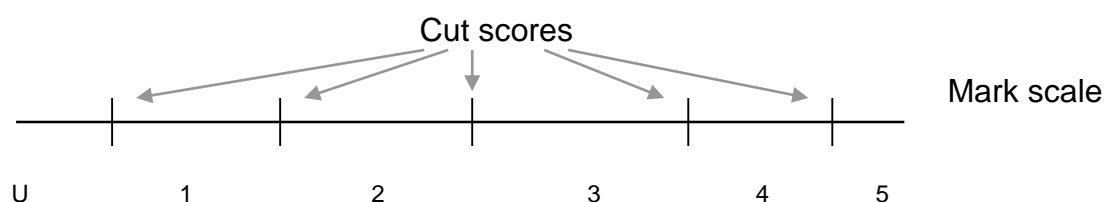


Figure 5.1 Defining levels of performance via cut scores on the mark scale for a given subject

Within the context of the HKDSE there are five cut scores, which are used to distinguish five levels of performance (1–5), with 5 being the highest. A performance below the cut score for Level 1 is labelled as ‘Unclassified’ (U).

For each of the five levels, a set of written descriptors has been developed to describe what the typical candidate performing at this level is able to do. The principle behind these descriptors is that they describe what typical candidates *can* do, not what they *cannot* do. In other words, they describe performance in positive rather than negative terms. These descriptors represent ‘on-average’ statements and may not apply precisely to individuals, whose performance within a subject may be variable and span two or more levels. Samples of students’ work at various levels of attainments are provided to illustrate the standards expected of them. These samples, when used together with the level descriptors, will clarify the standards expected at the various levels of attainment.

In setting standards for the HKDSE, Levels 4 and 5 are set with reference to the standards achieved by students awarded grades A–D in the HKALE. It needs to be stressed, however, that the intention is that the standards will remain constant over time – not the percentages awarded different levels, as these are free to vary in line with variations in overall student performance. Referencing Levels 4 and 5 to the standards associated with the old grades A–D is important for ensuring a degree of continuity with past practice, for facilitating tertiary selection and for maintaining international recognition.

To provide finer discrimination for selection purposes, the Level 5 candidates with the best performance have their results annotated with the symbols ** and the next top group with the symbol *. The HKDSE certificate itself records the Level awarded to each candidate.

Chapter 6 Learning and Teaching Resources

This chapter discusses the importance of selecting and making effective use of learning and teaching resources, including textbooks, to enhance student learning. Schools need to select, adapt and, where appropriate, develop the relevant resources to support student learning.

6.1 Purpose and Function of Learning and Teaching Resources

The purpose of learning and teaching resources is to provide a basis for students' learning experiences. They include not only textbooks, workbooks and audio-visual teaching aids produced by the Education Bureau and other organisations, but also web-based learning materials, IT software, the Internet, the media, resources in the natural environment, libraries and people. All of these should be drawn upon to broaden students' learning experiences and meet their varied learning needs. If used effectively, they will help them to: consolidate what they have learnt; extend and construct knowledge for themselves; and develop the learning strategies, generic skills, positive values and attitudes they need – and thus lay a solid foundation for lifelong learning.

6.2 Guiding Principles

The basic considerations in the selection of learning and teaching resources are as follows:

- They should be in line with the curriculum aims and contain core elements of the curriculum.
- They should arouse students' interest, and motivate them to engage actively in higher-order thinking.
- They should provide access to knowledge, as well as scaffolding, to help students progress in learning.
- They should cater for students' individual differences by providing a variety of learning activities at different levels of difficulty;
- Learning resources used in addition to textbooks should promote independent learning by complementing and extending what students have learnt in class.
- They should promote discussion and further inquiry.

6.3 Types of Resources

6.3.1 Textbooks

Textbooks are specifically designed to help students understand essential knowledge, skills, positive values and attitudes relevant to the curriculum. Schools implementing the PE Elective may not have many textbooks to choose from. Some support measures to address this situation include the use of:

- Reference materials for the PE Elective

The EDB has developed reference materials for each of the nine theoretical parts of the PE Elective curriculum. It includes specified learning outcomes, essential student reading materials, glossaries and proposed learning and teaching activities.

6.3.2 References

Apart from textbooks, students should be encouraged to develop a habit of reading reference materials to deepen understanding of the learning content, gain more information for application or simply for personal interest. Students should be encouraged to use the school library and public libraries. Some examples of useful materials are:

- Readers

The PE Elective is about developing an active and healthy lifestyle. In story books and biographies, students may find role models to learn from, or cases to reflect on. Sport and physical activity series help students develop an interest in specific sports and physical activities while giving them useful guidelines to work on. Theme-based collections can widen students' exposure and satisfy their diverse interests and capabilities.

- Web-based materials

Rich and up-to-date information on all topics of the PE Elective is accessible from the Internet. Students and teachers should develop the knowledge and skills to locate and choose suitable online references, and organise them systematically.

- Media and printed materials

Magazines, newspapers, TV and radio programmes, pamphlets and research reports are important learning and teaching resources. They can stimulate students' interest in the subject and link classroom learning to the real world. Students and teachers should develop the habit of collecting such useful information.

6.3.3 The Internet and technology

The massive increase in the quantity of information available today has led to new approaches to learning and teaching. Teachers can act as facilitators of learning by helping students to search for information and work on it to turn it into personal knowledge. The Internet and technology bring about learning by:

- providing audio/visual aids for understanding difficult concepts
- providing access to information from a wide range of sources
- allowing students to work at their own pace, and with specially designed software
- offering a platform for interaction between the learners, teachers and resources
- promoting collaboration between learners and teachers
- facilitating the acquisition of information, and the development of critical thinking and knowledge-building.

The following examples illustrate how the Internet and technology work in the context of the PE Elective:

Online Discussion Forum

Teachers and students may seek interactive support or advice from online forums. By maintaining close contacts with other people in the field, students and teachers alike can form support networks to seek information, raise questions, post up ideas, clarify misconceptions, etc. Online forums can also help students sustain their interest in the subject.

Computer-assisted Processing System (CAPS)

The Hong Kong Schools Sports Day, Swimming Gala and Games Day Computer-assisted Processing System (CAPS) was designed by the PE Section of EDB for school use. To gain authentic experience in organising school sporting events, students may try out its applications. They may use the CAPS to generate an event programme, record sheets and lane allocation. On the event days, they may also use it to process competition results, calculate scores and generate overall positions and so forth.

Useful link: http://schoolware.useit.us/?page_id=62

Mobile Applications (apps)

With rapid advancement of technology in mobile devices and the wide spread use of apps, students may make use of the apps to collect data for analysis. This may improve their performance in sports. For example, students may use the running apps on mobile phone to collect running data, including time and speed to evaluate their training effectiveness.

6.3.4 Teaching aids

Appropriate teaching aids, objects, equipment and charts make learning and teaching more effective, for example:

- **Models**

Models are useful for helping students to understand concepts that are abstract, complex or remote from their personal experience. They can be real objects, diagrams or charts. For example, when teaching the topic “Human Body”, students may assemble a plastic skeleton model to get experience in handling bones; and when discussing “Sport and Society”, the teacher may show students a concept map giving them an overview of the complicated relationships involved to stimulate thinking.

- Apparatus and equipment

In a number of PE Elective topics such as “Movement Analysis”, “Weight Control”, “Treatment of Sports injuries” and “Anxiety and Arousal”, students gain hands-on experience in using relevant apparatus and equipment like measuring tools, first aid kits, etc. Such authentic experiences can greatly enhance learning and contribute to the development of knowledge, skills and attitudes.

Teachers should make the best use of the grants available to purchase useful teaching aids, hire suitable venues or employ teaching assistants to improve the quality of classroom learning. The workshops or laboratories of other subjects may contain models, apparatus and equipment suitable for use in PE Elective classes. Also, as a way of increasing motivation, teachers may consider taking their students occasionally to tertiary institutions that offer PE and sport science programmes to observe or use state-of-the-art products in the field.

6.3.5 Community resources available

- Collaboration with community organisations, tertiary institutions and professional bodies

Various organisations provide both sport and leadership training for students. For instance, in the “Sports Captain Programme”, students can learn some basic concepts in sports organisation or coaching methods. They should assist their teachers in running the sports day or provide training for their peers, with those involved being given “recognition” for completing a certain number of hours.

- Parents and alumni

Parents and alumni are valuable assets to schools. Apart from donations, they can provide helpful advice on the implementation of the PE Elective. For instance, parents or alumni who are in the legal profession can be invited to share their experience of legal issues in PE and sport activities with students; and those from the medical or nursing professions can share their knowledge of the human body, fitness and nutrition. Parents and alumni may also help in visits to sports venues.

- Employers

To fulfil the objectives of the PE Elective, it is useful for students to gain authentic experience through work or in a job-related environment. Visits to relevant businesses – for example, clubhouses, fitness centres, healthcare centre, and physiotherapists’ clinics can broaden students’ horizons. Short-term apprenticeships or “shadowing” people in related professions (e.g. at recreation centres, elite sports training schools and summer training camps) can also be illuminating for students. It is advisable for teachers to keep in contact with employers in these professions to make full use of such community resources.

- Use of public sports facilities by schools

- Schools may apply for the use of public/community sports facilities for both general PE lessons and PE Elective lessons. The major venue providers include the Leisure and Cultural Services Department, the Housing Department and other private, district and

regional sports organisations. The EDB has reached agreements with them on schools' advance or block bookings for lessons or co-curricular activities. The relevant circular memoranda are posted on the EDB website.

- The details of hiring charges, opening hours, facilities and booking procedures can be found in the relevant circular memoranda. The major facilities available include sports grounds, swimming pools, sports centres, hard-surfaced recreation grounds, grass and artificial turf pitches, tennis courts and squash courts. Also, the Leisure and Cultural Services Department offers a free use scheme for schools during school hours. The use of hard-surfaced recreation grounds under the management of the Housing Department and Leisure and Cultural Services Department is also free.

6.4 Flexible Use of Learning and Teaching Resources

In the information era, PE teachers do not need to be concerned about a lack of reference materials. However, they need to be cautious when selecting or guiding their students to select them. Teachers should ensure that the resources:

- are really useful for achieving the learning objectives;
- are interesting to the students, appropriate for their level of understanding and easy to follow;
- can help students to acquire knowledge and information or provide scaffolding to enable them to construct knowledge;
- cater for the diverse needs, capabilities and experience of students; and

Teachers should also ensure that students are suitably sceptical when reading or using reference materials, in particular those on websites.

6.5 Resource Management

6.5.1 Developing a school-based resource bank

Schools should reflect on different resources available in the school and develop a resource bank to support the learning and teaching of the senior secondary subjects. A few new topics have been added in the PE Elective, such as “Movement Analysis” and “Psychological Skills for PE, Sport and Recreation”, and so teachers may need additional apparatus and equipment to enrich their students' learning experiences in these areas. Teachers may exchange their experience with other teachers during sharing sessions or seek professional advice from tertiary institutes or relevant bodies on what should be included in their equipment lists.

6.5.2 Sharing learning and teaching resources

A culture of sharing is the key to the success of knowledge management. Schools should make arrangements for:

- teachers and students to share learning and teaching resources through the intranet or other means within the school;
- teachers to form professional development groups for the face to face or electronic

exchange of experience.

6.5.3 Accessibility and storage

Students should be encouraged to access learning and teaching resources outside school hours. As some resources may be given to students on loan, systematic resource records are very important for teachers to keep track of resource utilisation.

6.5.4 Other measures

- To assist schools in managing curriculum change, EDB has provided them with a one-stop curriculum resources directory service at www.edb.gov.hk/cr. The directory provides a central pool of ready-to-use learning and teaching resources and useful references developed by EDB and other parties.
- The EDB will maintain close ties with the relevant departments of local teacher education institutions about the development of the PE Elective to ensure that their pre- and in-service programmes are in line with the latest developments in the senior secondary curriculum.
- To assist schools in implementing the senior secondary curriculum, EDB will continue to provide them with additional funding and to encourage flexibility in the use of resources to cater for their diverse needs. Schools are advised to refer to the relevant and latest circulars issued by EDB from time to time.

Examples of learning and teaching activities

Type	Brief description [and a specific example for the PE Elective]
<i>Experiment</i>	Students may verify or apply a theory they have learnt. [Students analyse their long jump performance by using movement analysis techniques (Part III Movement Analysis).]
<i>Graphic organisers</i>	Graphic organisers – for example, concept maps, fishbone diagrams, flowcharts and Venn diagrams – may help students to see how concepts and events are interlinked and so deepen their understanding. [Students draw a Venn diagram on skill classification (Part VII Psychological skills) to help them differentiate open and closed skills.]
<i>Group discussion</i>	Group discussion provides an avenue for students to exchange ideas, clarify concepts, share experience and deepen understanding. There are various modes of group discussion – from pair work to 6-7 students' group. [Students pair up and critically appraise their partner's layout plan for circuit training against the FITT principles (Part V Training Methods).]
<i>Lecturing</i>	Lecturing provides information-rich and structured learning experiences for students. This kind of instruction will be often used in most of the theoretical parts of the PE curriculum.
<i>Models</i>	Models are always desirable given their visual and kinaesthetic impact. [In addition to showing a model of a human skeleton to students, teachers can ask students to construct a model by themselves to deepen their understanding of the skeletal system (Part II Human Body).]
<i>Portfolios</i>	A portfolio is a collection of students' experiences, reflections and achievements. [To maintain an active and healthy lifestyle, students can keep a portfolio to help them to set goals, monitor progress, and design an improvement plan. Teachers monitor students' learning progress by reviewing their portfolios.]
<i>Project learning</i>	Project learning provides opportunities for interdisciplinary learning and helps students to construct and co-construct knowledge in the process. [Students investigate the organisation of equestrian events for the Beijing 2008 Olympic Games to be held in Hong Kong. After gaining sufficient knowledge about organising sports events (Part IX Sport and Recreation Management), they carry out a project to analyse the various positive and negative factors involved in the events, and propose improvement plans.]

<i>Reading to learn</i>	Reading may help students to broaden their horizons and connect learning with the outside world. [Teachers ask students to look for additional information about China’s sporting culture (Part VIII Social Aspects) by visiting the school library, and browsing websites or blogs. Students may share their findings and insights with classmates for discussion or further exploration.]
<i>Reciprocal teaching</i>	Students sometimes may act as student-teachers, whereas the teacher may act as a facilitator or advisor. [Students introduce the training methods (Part V Training Methods) they have experienced in the athletics team. Such activities provide students with a sense of relevance and ownership, and deepen their understanding.]
<i>Reflective journals</i>	Students can jot down their reflections on a journal on a daily or weekly basis. [After studying the module on forces and movement (Part III Movement Analysis), students write down the learning points they consider important, and the difficulties in putting the theory into practice. Teachers may also collect students’ journals for giving feedback and adjusting teaching strategies.]
<i>Role-play</i>	Students gain access to other people’s views and perspectives when engaging in role-play activities. [During a lesson on media and sport (Part VIII Social Aspects), students play different roles – such as a reporter, editor, reader and athlete – in illustrating their different interests in a sports news report.]
<i>Self-/peer-assessment checklist</i>	Students can rate their performance against a skill/performance checklist. The checklist aims to provide rubrics for self or peer assessment. [In peer assessment of competency in physical activities, students not only play an active part in assessment, but also observe the strengths and weaknesses of their classmates.]
<i>Talks by guest speakers</i>	Teachers may invite different professionals to share their experience on topics or issues relevant to the curriculum. [A sports journalist shares his/her experience in media and sports (Part VIII Social Aspects), and a practising lawyer gives insights into legal issues in PE, sport and recreation (Part IX).]
<i>Visits</i>	Learning is not confined to the campus – there are many places worth visiting to broaden students’ horizons. [Students visit the Science Museum to find interesting information related to the human body (Part II Human Body) and sports injuries (Part VI Sport Injuries). They also visit local sports governing organisations to understand their operations (Part IX Sport and Recreation Management).]

Glossary

<u>Term</u>	<u>Description</u>
Active and healthy lifestyle	A way of living based on regular physical activities and a cluster of related healthy behaviours which lead to health, vigour, vitality as well as self-respect and control of one's destiny
Applied Learning (ApL, formerly known as Career-oriented Studies)	Applied Learning (ApL, formerly known as Career-oriented Studies) is an essential component of the senior secondary curriculum. ApL uses broad professional and vocational fields as the learning platform, developing students' foundation skills, thinking skills, people skills, values & attitudes and career-related competencies, to prepare them for further studies and / or for work as well as for lifelong learning. ApL courses complement 24 NSS subjects, diversifying the senior secondary curriculum.
Assessment objectives	The outcomes of the curriculum to be assessed in the public assessments.
Body maintenance	One of the three learning themes underpinning the PE Elective curriculum that focuses on issues related to building a strong and healthy body. It covers the following theoretical learning parts: "Human Body", "Fitness and Nutrition" and "Sports injuries".
Co-construction	Different from the direct instruction and construction approaches to learning and teaching, the co-construction approach emphasises the class as a community of learners who contribute collectively to the creation of knowledge and the building of criteria for judging such knowledge.
Care for the Community	One of the three learning themes underpinning the PE Elective curriculum that focuses on issues related to social and political issues arisen from PE, sport and recreation. It covers the following theoretical learning parts: "History and Development", "Social Aspects" and "Sport and Recreation Management".
Cooperative learning	A learning and teaching strategy that engages students in working with peers or in groups to accomplish shared goals. Positive interdependence, individual accountability, equal participation and social skills among group members are emphasised.
Core subjects	Subjects recommended for all students to take at senior secondary level: Chinese Language, English Language, Mathematics and Liberal Studies.
Cross-curricular link	It entails knowledge or skills commonly found or highly related. Learning will be more effective when students handle similar types of knowledge or skills in different contexts.

<u>Term</u>	<u>Description</u>
Curriculum and Assessment (C&A) Guide	A guide prepared by the CDC-HKEAA Committee. It embraces curriculum aims / objectives / contents and learning outcomes, and assessment guidelines.
Direct instruction	A learning and teaching approach that relies heavily on structured and carefully planned lessons conducted by teachers. Its learning sequence, tasks and outcomes are predetermined.
Field work	A learning activity that engages students in authentic situations through visits and job shadowing, etc.
General PE	General PE is not a public examination and also referred to as Other Learning Experience-Physical Development (OLE-PD). General PE lessons which constitute 5-8% of total lesson time in basic education (Primary 1 to Secondary 3) and at least 5% in the senior secondary curriculum
Generic skills	Generic skills are skills, abilities and attributes which are fundamental in helping students to acquire, construct and apply knowledge. They are developed through the learning and teaching that take place in different subjects or key learning areas, and are transferable to different learning situations. Nine types of generic skills are identified in the Hong Kong school curriculum, i.e. collaboration skills, communication skills, creativity, critical thinking skills, information technology skills, numeracy skills, problem solving skills, self-management skills and study skills.
Healthy living	A dynamic state and lifestyle that gears people towards staying physically, mentally and socially healthy.
Hong Kong Diploma of Secondary Education (HKDSE)	The qualification to be awarded to students after completing the three-year senior secondary curriculum and taking the public assessment.
Internal assessment	This refers to the assessment activities that are conducted regularly in school to assess students' performance in learning. Internal assessment is an inseparable part of the learning and teaching process, and it aims to make learning more effective. With the information that internal assessment provides, teachers will be able to understand students' progress in learning, provide them with appropriate feedback and make any adjustments to the learning objectives and teaching strategies they deem necessary.
Issue enquiry	A learning and teaching approach that unfolds understanding through defining the problem, listening to other students' views, presenting ones' ideas and defending assertions with data/personal experience.

<u>Term</u>	<u>Description</u>
Key Learning Area (KLA)	Organisation of the school curriculum structured around fundamental concepts of major knowledge domains. It aims at providing a broad, balanced and coherent curriculum for all students in the essential learning experiences. The Hong Kong curriculum has eight KLAs, namely, Chinese Language Education, English Language Education, Mathematics Education, Personal, Social and Humanities Education, Science Education, Technology Education, Arts Education and Physical Education.
Knowledge construction	This refers to the process of learning in which learners are involved not only in acquiring new knowledge, but also in actively relating it to their prior knowledge and experience so as to create and form their own knowledge.
Learning by doing	A learning and teaching strategy by which students comprehend knowledge through engaging in simulated or authentic situations.
Learning community	A learning community refers to a group of people who have shared values and goals, and who work closely together to generate knowledge and create new ways of learning through active participation, collaboration and reflection. Such a learning community may involve not only students and teachers, but also parents and other parties in the community.
Learning outcomes	Learning outcomes refer to what learners should be able to do by the end of a particular stage of learning. Learning outcomes are developed based on the learning targets and objectives of the curriculum for the purpose of evaluating learning effectiveness. Learning outcomes also describe the levels of performance that learners should attain after completing a particular key stage of learning and serve as a tool for promoting learning and teaching.
Learning targets and learning objectives	<p>Learning targets set out broadly the knowledge/concepts, skills, values and attitudes that students need to learn and develop.</p> <p>Learning objectives define specifically what students should know, value and be able to do in each strand of the subject in accordance with the broad subject targets at each key stage of schooling. They are to be used by teachers as a source list for curriculum, lesson and activity planning.</p>
Leisure	An activity that one engages in during free time.
Level descriptors	A set of written descriptions that describe what the typical candidates performing a certain level is able to do in public assessments.

<u>Term</u>	<u>Description</u>
Other Learning Experience – Physical Development (OLE-PD)	An essential component that complements the examination subjects and Applied Learning under the senior secondary curriculum. Through OLE-PD, students will build up lifelong capacities (including interest and skills) to lead an active and healthy lifestyle. OLE-PD also enables students to understand and to adopt sportsmanship, five essential Chinese virtues (i.e. ethics, intellect, physical development, social skills and aesthetics) and core values (such as perseverance, respect for others, responsibility, national identity and commitment).
Personalised learning	The principle of designing and tailoring learning experiences to meet individual education needs, aspirations and aptitude in a bid to stretch students’ potential.
Physical activity	An activity that involves physical exertion for exercise, recreation or competition.
Physical Education	The notion of educating students through physical activities to attain the objectives of cognitive development, affective development, skills and fitness.
Physical performance	The effect of executing physical skills.
Physical skill	Motor actions executed in unity to achieve a purpose in physical activities. Development of physical skills is one of the six strands of the PE Key Learning Area.
Planning-Implementation-Evaluation (P-I-E)	A process in which students set individualised goals and monitor progress for maintaining or enhancing physical fitness. Students taking the PE Elective are required to demonstrate self-regulatory capability through P-I-E for maintaining or enhancing physical fitness.
Practical work	The realisation of the subject in terms of participation in games or sports, testing theories, doing laboratory work, organising sport programmes, etc.
Practicum	A part of the PE Elective curriculum which accounts for 16% of the total learning time of the subject. It is an applied learning process of realising an active and healthy lifestyle through planning, implementing and evaluating plans pertaining to body maintenance, self-enhancement and care for the community in authentic situations.
Problem-based approach	A curriculum design approach that uses authentic problems as the drivers of learning. Students are presented with problems and work through to find solutions. During the process, students not only acquire new knowledge, but also learn the skills for

<u>Term</u>	<u>Description</u>
	problem-solving, teamwork, leadership and communication.
Public assessment	The associated assessment and examination system for the HKDSE.
Recreation	An activity that renews one’s health and spirits through enjoyment and relaxation.
Reliability	The extent to which a test yields the same result if it is conducted on repeated trials and/or by different testers.
School-based assessment (SBA)	Assessments administered in schools as part of the teaching and learning process, with students being assessed by their subject teachers. Marks awarded will count towards students’ public assessment results.
School-based curriculum	Schools and teachers are encouraged to adapt the central curriculum to develop their school-based curriculum to help their students achieve the subject targets and overall aims of education. Measures may include readjusting the learning targets, varying the organisation of contents, adding optional studies and adapting learning, teaching and assessment strategies. A school-based curriculum, hence, is the outcome of a balance between official recommendations and the autonomy of the schools and teachers.
Scientific inquiry	A learning and teaching approach that unfolds understanding through empirical testing of theories, experiments and management of data.
Self enhancement	One of the three learning themes underpinning the PE Elective curriculum that focuses on issues related to improving physical performance. It covers the following theoretical learning parts: “Movement Analysis”, “Training Methods” and “Psychological Skills”.
Sport	An institutionalised game or play which is competitive by nature.
Standards-referenced reporting	Candidates’ performance in public assessment is reported in terms of levels of performance matched against a set of standards.
Student diversity	Students are individuals with varied family, social, economic and cultural backgrounds and learning experiences. They have different talents, personalities, intelligence and interests. Their learning abilities, interests and styles are, therefore, diverse.

<u>Term</u>	<u>Description</u>
Student learning profile	It is to provide supplementary information on the secondary school leavers' participation and specialties during senior secondary years, in addition to their academic performance as reported in the HKDSE, including the assessment results for Applied Learning courses, thus giving a fuller picture of the student's whole person development.
Textbook	A book that contains detailed information about a subject. For a book to be included into the Recommended Textbook List issued by the EDB, its content, learning and teaching approach, language and technical design must have met the requirements set out by the CDC.
Thematic approach	A less discipline-based and more authentic curriculum design to break the curriculum contents into small units and link them to different themes so that study progresses in a natural way.
Theoretical learning part	The part that is devoted to learning concepts and theories. The nine theoretical learning parts account for 84% of the learning of the PE Elective.
Validity	The extent to which a test measures what it is intended to measure.
Values & attitudes	Values constitute the foundation of the attitudes and beliefs that influence one's behaviour and way of life. They help form principles underlying human conduct and critical judgment, and are qualities that learners should develop. Some examples of values are rights and responsibilities, commitment, honesty and national identity. Closely associated with values are attitudes. The latter supports motivation and cognitive functioning, and affects one's way of reacting to events or situations. Since both values and attitudes significantly affect the way a student learns, they form an important part of the school curriculum.

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