Personal, Social and Humanities Education
Key Learning Area

Economics
Curriculum and Assessment Guide
(Secondary 4 - 6)

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

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Contents

Preamble

This Curriculum and Assessment (C&A) Guide is jointly prepared by the Curriculum Development Council (CDC) and the Hong Kong Examinations and Assessment Authority (HKEAA) in 2025. It is based on the goals of senior secondary education and on other official documents related to the curriculum and assessment, including the *Secondary Education Curriculum Guide* (2017), *Personal, Social and Humanities Education Curriculum Guide* (2017) and the *Primary Education Curriculum Guide* (2024). 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 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 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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Chapter 1 Introduction

This chapter provides the background, rationale and aims of Economics 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

Economics is one of the six elective subjects in the Personal, Social and Humanities Education (PSHE) Key Learning Area (KLA) in the three-year senior secondary curriculum. The study of economics helps students to understand the human world through enquiring into how resources are used to serve individuals and society. It also contributes to the development of critical thinking and decision-making skills, which are crucial for the all-round development of students and, in particular, their development as life-long learners and responsible citizens.

The senior secondary Economics curriculum is designed to be a three-year elective course for all senior secondary students interested in the subject. The Secondary 4 - 5 Economics curriculum implemented in 2003 is the basis for the design of the curriculum, with some reorganisation of content, broadening of coverage and increased depth.

The C&A Guide was jointly prepared by the Curriculum Development Council (CDC) and the Hong Kong Examinations and Assessment Authority 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 review so that schools and students could benefit at the earliest possible instance. Subsequently, a second update was made in November 2015 to incorporate additional recommendations from the medium-term review of the New Academic Structure regarding curriculum and assessment. This current update aims to implement the optimised measures for the senior secondary Economics proposed in 2024, aligning with the latest economic developments and enhancing learning and teaching effectiveness, while also addressing the recommendations of the Task Force on Review of School Curriculum to create space and cater for learner diversity.

1.2 Rationale

Economics helps students to understand the principles and forces that affect people in their everyday lives, in particular their roles as consumers and producers. The perspective it provides is also important in giving students a more comprehensive understanding of contemporary issues facing Hong Kong and the mainland, as well as of the interdependence among regions and countries. As Hong Kong is undergoing rapid economic changes, establishing closer links with the mainland and striving to remain competitive in the world economy, the study of economics is highly relevant and applicable to real-life situations.

The study of economics helps students to develop essential skills for "learning to learn". The analytical approach of the subject enables students to learn to think logically. As students learn to apply theories and concepts to real-world issues, their problem-solving and critical thinking skills are enhanced. These skills are essential for life-long learning in a variety of fields of study, and for preparing to live in a knowledge-based society. Students of Economics will also learn to master a variety of tools and skills for the effective communication of economic ideas and discussion of economic issues.

The Economics curricula in Hong Kong secondary education have a strong tradition in positive economics, which emphasises its objective and scientific nature. This curriculum goes further and encourages students to formulate and explore normative questions. As an area of study in which the making of choices is prominent, economics has much to contribute to enquiry into issues that involve values and preferences. When students investigate issues of public concern, they will learn to draw conclusions based on logical analysis, and at the same time be aware of the value judgments underlying the choices they make. Such analytical power and awareness are essential for making reasoned choices, as well as for developing intellectual capacity in general.

By developing students' basic economic knowledge and skills, and an awareness of different values, the curriculum will help them to make rational economic choices for their own lives and decisions on various social issues. The curriculum will also help to develop in students a concern for the well-being of the family, society, the nation and the world.

1.3 Curriculum Aims

The aims of the Economics curriculum are to enable students to:

(a) develop an interest in exploring human behaviour and social issues through an economic perspective;
(b) understand the world in which they live through mastery of basic economic knowledge;
(c) enhance their general intellectual capacity for life-long learning, through developing their capacities in economic analysis, so that they possess the skills necessary for reasoning about issues and making rational choices; and
(d) participate as informed and responsible citizens in the decision-making processes of a modern democratic society.

1.4 Curriculum Objectives

1.4.1 Knowledge and understanding

Students will develop knowledge and understanding about:
(a) economic terminology and concepts, as well as elementary economic theories;
(b) basic economic problems faced by every individual and society, and alternative approaches to tackling these problems;
(c) the considerations and forces underlying the economic decisions that need to be taken by individuals, firms, institutions and governments;
(d) the interactions of different economic sectors; and
(e) the Hong Kong economy and its relationship with the economies of other parts of the nation and the world.

1.4.2 Skills

Students will develop skills to:
(a) interpret economic information presented in verbal, numerical or graphical form;
(b) apply their economic knowledge to a variety of problems and issues in a range of economic contexts;
(c) analyse information through the use of economic concepts and theories;
(d) evaluate information, arguments, proposals and policies from different economic perspectives and make informed judgements; and
(e) communicate economic ideas and informed judgements, in a clear, logical and appropriate form.

1.4.3 Values and attitudes

Students will develop values and attitudes so that they may:

(a) participate as informed persons in the discussion of economic issues and decision-making; and
(b) become active and responsible citizens and contribute to the well-being of the local community, the nation and the world.

1.5 Broad Learning Outcomes

By the end of the course, students are expected to become economically literate decision-makers and should be capable of demonstrating the following:

(a) an understanding of scarcity, choice and cost as the basis of economic problems;
(b) an ability to relate the role of specialisation and exchange to productivity growth in an economy;
(c) an understanding of how decisions concerning production, exchange and consumption, and the associated coordination problems, are tackled by price and non-price methods of allocation, and the implications of these methods of allocation;
(d) proficiency in applying the basic demand-supply model to explain real-world events and, through extending these analyses, to study efficiency by using consumer surplus and/or producer surplus;
(e) an ability to interpret fluctuation in output, employment and general price level in the economy using the aggregate supply-aggregate demand (AS-AD) framework and the Quantity Theory of Money;
(f) an appreciation of the connection between the learner and his/her social environment at present and through time, developed through understanding various economic agents, events, institutions and rules;
(g) an ability to collate economic data and their different representations (e.g. graphs) to examine and interpret evidence to explain social patterns and events with the use of economic tools of analysis;
(h) competence in generic skills such as communication skills, problem-solving skills and critical thinking skills through enquiry into economic issues and controversies; and
(i) an orientation to and competence in using information and communication technologies for enquiry learning and knowledge construction.

1.6 Interface with Junior Secondary Education and Post-secondary Pathways

The study of senior secondary Economics curriculum is built on the knowledge and skills that

students have developed in the junior secondary education. These include the concepts and knowledge embedded in the six strands of the PSHE curriculum. More specifically, Strand 5, "Resources and Economic Activities", gives a solid foundation for students to extend their enquiry in the senior secondary Economics curriculum. They should have developed a preliminary understanding of elementary economic ideas and a general impression of the Hong Kong economy. Students should have the knowledge about the economic restructuring of Hong Kong and its ties with the mainland through, for example, the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA), the development of the Guangdong-Hong Kong-Macao Greater Bay Area and the implications of these developments for young people's career opportunities. They should also have acquired basic enquiry skills through project learning, which is one of the four key tasks to help students to learn how to learn, in their study of different areas of humanities. Together with other learning experiences in junior secondary education, students should have acquired key concepts and developed generic skills, such as communication skills and numeracy skills, to support them in the study of senior secondary Economics curriculum.

The study of this curriculum helps to foster students' intellectual power, and develop their economic perspectives that will benefit their further studies in tertiary institutions. This curriculum will provide a useful preparation not just for studying economics but also for other university studies such as management, financial studies, law, environmental studies, and public and social administration. The perspectives, knowledge base and skills that are emphasised in senior secondary Economics curriculum can broaden the range of further study choices for students.

This curriculum blends well with courses which prepare students with practical skills for employment in the service sector. Students taking Applied Learning courses together with Economics in S4 – S6 are adequately prepared for this pathway. Alternative avenues such as sub-degree programmes and qualifications offered by professional institutions in their respective fields also exist.

On completing senior secondary education, some students will enter the workplace directly. Their economic literacy, awareness and ability to make informed decisions will help them to cope with the demands of an ever changing work environment.

Chapter 2 Curriculum Framework

The curriculum framework for Economics 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 plan their school-based curriculum and design appropriate learning, teaching and assessment activities.

2.1 Design Principles

The design of this curriculum is based on the following principles:

(a) build on the knowledge, skills, values and attitudes, and learning experience which have been acquired and developed by students through their study of the PSHE curriculum in basic education;
(b) achieve a balance between breadth and depth in the study of economics to facilitate students' preparation for further studies, entry into the workforce and whole-person development;
(c) achieve a balance between the learning of theoretical knowledge and its application to real-life situations. Equal emphasis should be given to the development of systematic and conceptual knowledge in economics, and a better understanding of economic issues and problems relevant to the present and future lives of students;
(d) provide a flexible and diversified framework which is capable of catering for learner diversity in abilities, needs and interests. The choice of curriculum elements should lead to effective learning for all young learners in the Economics classroom, so that success in learning can be realised for everyone;
(e) help students to develop independent and life-long learning skills by promoting student-centred enquiry;
(f) encourage the exploration of social issues. The inculcation of values, a variety of perspectives and empathy should be emphasised in this curriculum; and
(g) align curriculum and assessment closely, with assessment designed as an integral part of the process of learning and teaching.

2.2 Curriculum Structure and Organisation

Economics provides an interpretive framework for students to see the world in a more systematic way. This will equip learners with a range of tools of analysis through which they can comprehend realities better. With the addition of some normative issues in the curriculum, empathy, sensitivity and multi-perspective thinking of learners can be more readily enhanced. The preparation for future challenges can be more effectively achieved.

The components, concepts and tools of analysis in this curriculum are outlined below:

(a) This curriculum comprises two parts. The Compulsory Part covers basic concepts and topics in microeconomics and macroeconomics. The Elective Part, which constitutes around 10% of curriculum time, comprises two parts from which students can choose one[1]. The Elective Part includes elements that call for extended analysis and broader economic knowledge. It provides an opportunity for students to choose an area of study related to their aptitudes and interests.

(b) The senior secondary Economics curriculum incorporates microeconomic core concepts and skills for the analysis of choice, such as cost and value, production and consumption. Specialisation as the basis for trade is discussed. Marginal analysis is introduced in the topic on firms and production, although the treatment is very elementary. Price mechanism as one of the most important resource allocation mechanisms is introduced. Efficiency is then discussed so that students can have a more in-depth understanding of real-world issues with the help of the concepts of consumer and producer surplus. Equity, a concern that surfaces in many real-world issues, is then introduced through the discussion of income inequality. This concept is useful for the analysis of cases, social problems and controversies. The framework of analysing choice is central to the microeconomic topics of this curriculum, and how a social system influences human behaviour through the shaping of incentives is embedded in this framework.

(c) The performance of the economy has impact on the individual. This curriculum prepares students to understand the macroeconomy. To achieve this, elementary macroeconomic models and tools are introduced. For the analysis of aggregate economic performance, the AS-AD approach is adopted. Students can use this tool to study factors affecting short term economic fluctuations and the effects of government

[1] Starting from the Secondary 4 in the 2025/26 school year (i.e., the 2028 Hong Kong Diploma of Secondary Education Economics examination), students may choose to study only the Compulsory Part. For details regarding the public assessment arrangements, please refer to Chapter 5 of this Guide.

policy on the economy. Also, the Quantity Theory of Money is brought in to explain inflation. The inclusion of these explanatory tools enables students to analyse the macroeconomy more comprehensively. Finally, the theory of comparative advantage is introduced to explain gains from trade.

(d) As for the Elective Part, Part 1 extends students' understanding of the topic on monopoly by introducing more advanced analytical tools, and broadens students' knowledge about competition policy. Part 2 extends students' understanding of trade theory with the use of production possibilities frontier, and broadens their knowledge about economic growth.

The Compulsory Part and Elective Part of the curriculum are described below[2]:

[2] Please refer to Economics Curriculum and Assessment Guide (Secondary 4-6) – Supplementary Document (with updates in 2025) for further elaboration on each topic of the curriculum.

2.2.1 Compulsory Part

	Topic	Key Points
A	Basic Economic Concepts	Economics as a social science
		Scarcity, choice and opportunity cost (i) The source of economic problems: scarcity • Unlimited wants and limited resources • Free and economic goods (ii) Choice and opportunity cost • Economic decisions involving choices among alternatives • Concept of cost in economics • Interest as the cost of earlier availability of resources
		The three basic economic problems (i) What to produce? How to produce? For whom to produce? (ii) How society tackles the basic economic problems • By society's customs and traditions • By government decisions • By the market mechanism (N.B. Illustrations by examples only. All theories on types of economic systems NOT required) (iii)Private property rights and its importance in a market economy
		Specialization and exchange • Exchange as a condition for specialization Circular flow of economic activities (i) Consumption of households and production of firms (ii) The relationship among production, income and expenditure
		Positive and normative statements • Distinction between positive statements and normative statements

	Topic	Key Points
B	Firms and Production	Ownership of firms (N.B. Firm as a unit that makes decisions regarding the employment of factors of production and the production of goods and services) (i) Forms of ownership • Public ownership • Private ownership: sole proprietorship, partnership and limited company (N.B. Classification of partnership NOT required) (ii) Limited and unlimited liability (iii)Shares and bonds as sources of capital (N.B. Classification of shares and bonds NOT required)
		Types/stages of production • Primary, secondary and tertiary production and their inter-relationship
		Types of goods and services produced (i) Producer and consumer goods (ii) Private and public goods (N.B. Modelling regarding public goods NOT required)
		Division of labour (i) Types: simple, complex and regional (ii) Advantages and disadvantages (iii)Limitations

	Topic	Key Points
		Factors of production (i) Human resources • Labour: supply, productivity, mobility and different methods of wage payments • Entrepreneurship: risk-bearing and decision-making (ii) Natural resources • Land: supply (iii)Man-made resources • Capital: accumulation and depreciation (iv)The features of (i) to (iii) in Hong Kong
		Production and costs in the short run and long run (i) Definition of short run and long run • In terms of fixed and variable factors of production (ii) Law of diminishing marginal returns • Illustration by total product, average product and marginal product schedules only (iii)Cost of production • Fixed and variable costs • Total, marginal and average cost of production (N.B. General relationship between total, marginal and average cost curves NOT required. Relationship between short run and long run cost curves NOT required) (iv)Economies and diseconomies of scale • Internal economies and diseconomies of scale • External economies and diseconomies of scale (N.B. Economies and diseconomies of scale illustrated by average cost. Further classification of internal and external economies and diseconomies of scale NOT required) (v) Expansion and integration of firms • Types: vertical, horizontal, lateral and conglomerate • Motives

	Topic	Key Points
		The objectives of firms: (i) Profit maximization with given prices and marginal cost schedule • Meaning of profit as the difference between total revenue and total cost • Profit maximizing choice of output for individual firms with given prices and marginal cost schedule • The marginal cost schedule as the supply schedule of individual firms (N.B. Long run supply NOT required) (ii) Other objectives: market share, provision of non-profit making services, corporate social responsibility, etc
C	Market and Price	Law of Demand
		Individual demand (i) Factors affecting individual demand (ii) Complements and substitutes, superior and inferior goods (N.B. Giffen goods NOT required) (iii) Individual demand schedule and importance of the *ceteris paribus* assumption (iv) Difference between change in quantity demanded and change in demand
		Market demand (i) Horizontal summation of individual demand curves (ii) Factors affecting market demand
		Individual supply (i) Factors affecting individual supply (ii) Individual supply schedule and importance of the *ceteris paribus* assumption (iii) Difference between change in quantity supplied and change in supply

	Topic	Key Points
		Market supply (i) Horizontal summation of individual supply curves (ii) Factors affecting market supply
		Interaction between demand, supply and price (i) Definition of equilibrium: no tendency to change (ii) Equilibrium price and quantity (iii) Effects of change in demand and/or change in supply on equilibrium price and quantity
		Consumer and producer surplus (i) Marginal benefit to consumers, willingness to pay, consumer surplus, demand curve and their relationship (ii) Marginal cost of firms, minimum supply-price, producer surplus, supply curve and their relationship (iii) Illustrate consumer surplus and producer surplus in a demand-supply diagram (N.B. Concepts of utility, marginal rate of substitution, and indifference curves NOT required)
		Functions of prices (i) Rationing function: existing supplies are distributed to users with highest value (ii) Allocative function: • Demand is derived from marginal benefit, and supply is derived from marginal cost; the interaction between demand and supply then determines price and resources allocation • Changes in relative prices and resource deployment (N.B. Graphical analysis NOT required)
		Price elasticity of demand (i) Arc elasticity (N.B. Point elasticity, cross elasticity and income elasticity NOT required) (ii) Relationship between price elasticity and total revenue (iii) Factors affecting price elasticity of demand

	Topic	Key Points
		Price elasticity of supply (i) Arc elasticity (N.B. Point elasticity and cross elasticity NOT required) (ii) Factors affecting price elasticity of supply
		Market intervention (i) Price intervention: price ceiling and price floor (ii) Quantity intervention: quota • Illustration of quota by a kinked supply curve (iii)Unit tax and unit subsidy • Determination of the share of the tax burden/subsidy between producers and consumers (N.B. Graphical illustration of price ceiling, price floor, quota, unit tax and unit subsidy and their impact on price and quantity)
D	Competition and Market Structure	Perfect competition and imperfect competition (monopolistic competition, oligopoly and monopoly) (i) Definition of market (ii) General features • Number of sellers • Number of buyers • Nature of product • Ease of entry • Availability of information • Price taker/price searcher (iii)Sources of monopoly power (N.B. The four different forms of market structure are theoretical constructs. Actual examples may only be approximations of the above constructs. General analysis with marginal revenue and marginal cost curves NOT required)

	Topic	Key Points
E	Efficiency, Equity and the Role of Government	Efficiency (i) Conditions for efficiency: Maximization of total social surplus; marginal benefit equals marginal cost (ii) Deviations from efficiency: • Price ceiling, price floor, tax, subsidy and quota • Deadweight loss (iii)Divergence between private and social costs (benefits): market versus government solutions, illustrated by examples ONLY (N.B. Graphical analysis with illustration of consumer surplus and producer surplus in a demand-supply diagram only. The term "Pareto condition" NOT required)
		Equity (i) Efficiency and equity in a market economy (ii) Measuring income inequality: income distribution, Lorenz curve and Gini coefficient (N.B. Construction of the Lorenz curve and Gini coefficient NOT required) (iii)Sources of income inequality: human capital (e.g. skill differentials), discrimination and unequal ownership of capital, etc
		Policy concerns (i) Equalizing income or equalizing opportunities (ii) Disincentive effects of taxes and transfers (iii)Trade-off between equity and efficiency

	Topic	Key Points
F	Measurement of Economic Performance	National income (i) National income as a general term for aggregates like Gross Domestic Product (GDP) and Gross National Income (GNI) (ii) Gross Domestic Product (GDP) [3] • The three approaches to measure GDP: production approach (value-added approach), income approach, expenditure approach (N.B. Components of GDP compiled under the income approach NOT required) • Nominal and real GDP • GDP at factor cost • per capita GDP; growth rate of GDP (N.B. Other measures related to GDP NOT required) (iii) GNI as GDP plus net income from abroad (N.B. Other measures related to GNI NOT required) (iv) Uses and limitations of national income statistics as an indicator of economic welfare and for international comparison (N.B. Human Development Index NOT required)
		General price level as measured by Consumer Price Index and implicit price deflator of GDP (N.B. Construction of CPI and implicit price deflator of GDP NOT required)
		Unemployment and underemployment rates as measured in terms of the percentage of unemployed and underemployed persons in the labour force
		Recent trends of national income, general price level and unemployment in Hong Kong

[3] Starting from S4 2013/14, i.e. 2016 HKDSE Examination, students are NOT expected to grasp the identity $S - I \equiv NX$.

	Topic	Key Points
G	National Income Determination and Price Level	Aggregate demand (AD) (i) Reasons for a downward sloping AD curve (ii) Determinants of aggregate demand: • Private consumption expenditure, which in turn depends on disposable income, the desire to save, wealth (value of assets), interest rate, etc • Investment expenditure, which in turn depends on business prospect, interest rate, etc • Government expenditure • Net export, which in turn depends on the economic conditions of trading partners, exchange rate, etc (N.B. Derivation of the AD curve, magnitude of the shift in the AD curve and factors affecting the slope of the AD curve NOT required)
		Aggregate supply (AS) (i) Reason for an upward sloping short run AS curve [4] (ii) Reasons for a vertical long run AS curve (iii)Factors affecting short run and long run AS (N.B. Explanation by the Phillips curve and magnitude of the shift of the AS curve NOT required)
		The determination of level of output and price (i) Determination of the equilibrium level of output and price level in the AS-AD model (N.B. Quantity Theory of Money NOT required) (ii) Changes in the equilibrium level of output and price level caused by change(s) in the AD and/or AS (iii)Relationship between employment and output level (N.B. Interest rate is treated as exogenously determined)
H	Money and Banking	Money (i) Definition of money (ii) Nature and functions of money

[4] Starting from S4 in 2013/14, i.e. 2016 HKDSE Examination, students are expected to grasp "imperfect adjustment of input and output prices" as the ONLY explanation required for an upward-sloping SRAS curve.

	Topic	Key Points
		Banks: functions and services (i) Commercial banks and central bank (ii) Licensed banks, restricted licence banks and deposit-taking companies in Hong Kong (iii) How central banking functions are performed in Hong Kong
		Money supply (i) Definitions of money supply in Hong Kong (ii) Credit creation/contraction and the banking multiplier[5]
		Money demand (i) Meaning of transactions demand for money and asset demand for money (ii) Money demand as a function of nominal interest rate and income
		Determination of interest rate in the money market • Interaction of money supply and money demand
		Hong Kong as a financial centre (i) Factors contributing to its development as a financial centre (ii) Effects on the Hong Kong economy
I	Macroeconomic Problems and Policies	Business cycles: a description of the short run fluctuations in real GDP around the long run trend (N.B. Theories of business cycles NOT required)
		Inflation and deflation (i) Definitions of inflation and deflation (ii) Relationship between nominal and real interest rates (iii) Redistributive effects (iv) Inflation and Quantity Theory of Money (N.B. Velocity of circulation of money assumed to be constant)

[5] Starting from S4 in 2013/14, i.e. 2016 HKDSE Examination, students are NOT expected to manipulate cash-deposit ratio in the calculation of credit creation / contraction.

	Topic	Key Points
		Unemployment (i) Meaning of unemployment (ii) Meaning of underemployment (iii)Cost of unemployment (N.B. Phillips curve NOT required)
		Fiscal policy (i) Meaning of fiscal policy • Definition of budget; surplus budget, deficit budget and balanced budget • Taxation – Principles – Classification of taxes - Direct and indirect taxes - Progressive, proportional and regressive taxes • Public expenditure: classification by function (N.B. With specific reference to Hong Kong) (ii) Effect of fiscal policy on the level of output and price
		Monetary policy (i) Meaning of monetary policy (ii) Effect of monetary policy on the level of output and price

	Topic	Key Points
J	International Trade and Finance	Free trade and trade barriers (i) Absolute advantage, comparative advantage and gains from trade (N.B. Illustration by the production possibilities frontier NOT required) (ii) Using the pattern of trade in Hong Kong to illustrate the principle of comparative advantage (iii)Importance of trade to Hong Kong's economy (iv)Trade barriers • Types • Effects of tariff and quota on price and output for a small open economy[6] • Trade barriers faced by Hong Kong (v) Hong Kong's attempts to overcome trade barriers • Trade promotion • Role of the HKSAR Government • Role of international economic institutions (e.g. World Trade Organisation)
		Brief introduction to the balance of payments account • Current account – Main components of the current account: goods, services, income and current transfers (N.B. Sub-classification of these components NOT required) • Capital account and financial account (N.B. Sub-classification of these accounts NOT required)
		Exchange rate (i) Meaning of exchange rate (N.B. Graphical analysis NOT required) (ii) Effect of a change in the exchange rate on import price and export price (iii)Brief introduction to the linked exchange rate system in Hong Kong (N.B. Mechanism of maintaining the linked exchange rate NOT required)

[6] Starting from S4 in 2013/14, i.e. 2016 HKDSE Examination, students are NOT expected to analyse the effects of tariff and quota for a small open economy on consumer surplus, producer surplus, total social surplus and deadweight loss.

2.2.2 Elective Part

Elective Part 1

Topic	Key Points
Monopoly Pricing	(i) Simple monopoly pricing • Determination of price, output and monopoly profit • Efficiency implications (N.B. Graphical and numerical illustrations with given demand, marginal revenue and marginal cost curves) • Circumstances under which monopoly may be beneficial to society (ii) Price discrimination • Meaning of price discrimination • Conditions for price discrimination (N.B. Price and output determination NOT required)
Anti-competitive Behaviours and Competition Policy	(i) Major forms of anti-competitive practices • Horizontal agreements among competitors: agreements to restrict prices and output • Vertical agreements between buyers and sellers • Mergers: horizontal mergers, vertical mergers and potential competition mergers (ii) The impact of anti-competitive practices (N.B. Graphical analysis NOT required) (iii)The Competition Ordinance in Hong Kong • The objectives of the Competition Ordinance in Hong Kong • The first conduct rule covering agreements, concerted practices and decisions that prevent, restrict or distort competition • The second conduct rule covering abuse of market power • Exclusions and exemptions

Elective Part 2

Topic	Key Points
Extension of Trade Theory	(i) Illustration of comparative costs and gains from trade with the aid of production possibilities frontier (N.B. The use of indifference curve NOT required) (ii) Comparative advantage and its relation to globalization
Economic Growth and Development	(i) Measurement of economic growth and development • Changes in real GDP • Changes in per capita real GDP • Changes in Human Development Index (ii) Factors affecting growth of an economy • Inputs: physical capital, human capital, natural resources, technological change • Policies: saving and investment, foreign direct investment, trade, education, population, property rights, research and development (N.B. The analytical framework of aggregate production function and the theories and models of economic growth NOT required) (iii)The desirability and costs of economic growth • Trade-off between current and future consumption • Growth, living standard and income distribution • Resources exhaustion, pollution and sustainable development (iv)International/regional comparison

2.2.3 Time allocation

	Topic	Suggested lesson time (hours)
Compulsory Part	A Basic Economic Concepts	12
	B Firms and Production	30
	C Market and Price	32
	D Competition and Market Structure	8
	E Efficiency, Equity and the Role of Government	18
	F Measurement of Economic Performance	12
	G National Income Determination and Price Level	16
	H Money and Banking	18
	I Macroeconomic Problems and Policies	30
	J International Trade and Finance	18
Elective Part	**Elective Part 1**: Monopoly Pricing, Anti-competitive Behaviours and Competition Policy; **OR** **Elective Part 2**: Extension of Trade Theory, Economic Growth and Development	24
	Sub-Total	**218**
	Conducting activities to facilitate students' learning of Economics such as integrating and applying contents of various topics to enquire into daily-life and economic phenomena	32
	Total	**250**

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

To enhance the effectiveness of learning and teaching Economics, teachers are encouraged to consider adopting appropriate planning to develop a balanced and coherent curriculum which enables students to take an active role in economic enquiry.

The following are principles for planning the Economics curriculum in school:

(a) The curriculum rationale, school context and student characteristics should be considered as a whole in determining how economics can help to prepare students for adulthood. A systems perspective is better than a piecemeal approach.
(b) Students' prior knowledge, especially their learning experience in junior secondary curriculum, should form the basis for planning.
(c) A proper sequence of concepts and skills should be observed, so that concepts ranging from "easy to difficult", "concrete to abstract", "specific to general", etc can be introduced at the appropriate time. This is especially important for topics with clear linearity in content arrangement. Key concepts should be applied and reinforced in different economic contexts at different stages of the learning process.
(d) The curriculum plan should allow for a wide range of learning activities to provide challenge for students of different abilities. The level of challenge, engagement in learning tasks and the social dimensions of learning should be considered in planning and sequencing learning activities.
(e) Consideration should be given to collaboration with other curricula across different Key Learning Areas so as to foster greater coherence between Economics and other subjects.
(f) The programme should prepare students adequately for further studies at the tertiary level. At the same time, it should provide an equally valuable learning experience for those who leave the subject at the end of their senior secondary education.
(g) Consideration should be given to students' diverse learning and developmental needs. Students who are unable to manage both the Compulsory Part and Elective Part can choose not to study the Elective Part. This would enable them to utilise the time thus

released to focus on their learning in the Compulsory Part to enhance their learning effectiveness.

3.2 Progression

Core concepts and ideas which are fundamental in helping students to see the relevance of economics to their lives and supporting their understanding of other topics should be introduced at an early stage. In sequencing topics, teachers should consider the maturity of students and their concerns. Topics that are remote or unfamiliar to them should be scheduled later, as should abstract concepts.

The senior secondary Economics curriculum is designed on the assumption that S4 students' exposure to macroeconomic variables and events is relatively limited compared to their daily experience in making consumption choices. The following are recommended for teachers' consideration on planning the progression of study in this subject:

(a) Economic concepts like cost, choices, production, firm and prices should be introduced at the beginning of the course.
(b) Topics on macroeconomics, such as measurement of Gross Domestic Product and AS-AD analysis, can be introduced at around late S4 or S5. Then, more analytical microeconomic topics, such as efficiency, can be introduced.
(c) By S5, students will have been well equipped with the essential tools for analysing cases and phenomena reported in the news. Application of these tools should be encouraged in various learning activities.
(d) Comparative advantage and other topics on trade can be introduced either in late S5 or the beginning of S6, depending on the readiness of students and curriculum scheduling considerations.
(e) The Elective Part serves the purposes of extending some learning elements of the Compulsory Part and broadening students' economic knowledge. Therefore, it is recommended that the Elective Part should be scheduled in S6.

Teachers' judgment is crucial in sequencing more abstract tools of economic analysis such as price elasticities of demand and supply, and AS-AD model. Introducing these tools in late S4 or early S5 may help more academically inclined students to grasp them earlier, so that they can use these tools to explain events around them, and consequently have greater motivation to pursue their studies further in this discipline.

However, for student groups with greater diversity in motivation or cognitive readiness, the teacher should focus more on the design of authentic learning experiences so that students' engagement can be significant and sustained.

To summarise, there is no one best learning and teaching sequence for all. It is an area in which teachers' expert judgment is important. Two detailed examples of teaching sequences are described in Appendix 1 and 2 for teachers' reference.

3.3 Curriculum Planning Strategies

The design of appropriate learning experiences in the senior secondary Economics curriculum is both an art and a science. Research findings and knowledge developed through professional practice give teachers a rational foundation for their planning. However, given the available teaching strategies and methods, judgment about what is best for students is an art. Teachers should gather adequate information about their learners so that they can exercise professional judgment prudently. For a more student-centred approach, teachers are encouraged to consider the following strategies in planning the curriculum:

3.3.1 Integrating classroom learning and independent learning

In the classroom, a teacher can provide many learning opportunities for each student. For the long term benefit of students, teachers should encourage students to become independent learners. Teachers can foster intrinsic motivation in students through a conscious effort to use authentic cases and observations to make economic explanations interesting. Teachers should design meaningful learning tasks in and outside the classroom. Schools could consider having more explicit guidelines on ways of minimising rote-learning and excessive competition among individual learners in the curriculum plans.

3.3.2 Catering for learner diversity

Students vary in their family, social, economic and cultural backgrounds, and have different talents and interests. The senior secondary Economics curriculum is designed in such a way that the basic concepts and tools of analysis are embedded in the Compulsory Part, whereas the Elective Part includes elements that call for extended analysis and broader economic knowledge. Students may choose the one that suits their interests and aptitudes best. Those who are interested in microeconomic analysis such as pricing strategies of firms may choose Elective Part 1. On the other hand, students who are interested in macroeconomic

performance and growth of the economy may choose Elective Part 2. Students who are unable to manage both the Compulsory Part and the Elective Part can be allowed to choose not to study the Elective Part. This would enable them to utilise the time thus released to focus on their learning in the Compulsory Part to enhance learning effectiveness. Furthermore, the curriculum has reserved lesson time for students to conduct enquiry activities. They may choose the enquiry issues that suit their interest most.

In the classroom, students differ in their attention levels and in their ability to receive and interpret messages. Teachers are encouraged to adopt a variety of learning and teaching approaches. For example, besides direct instruction, teachers can also involve students in hands-on tasks, communicating with peers, presenting ideas, commenting on social events, drawing diagrams for an idea on blackboard, doing searches on the internet, etc, so that students can develop their strengths in these tasks and gain confidence, competence and a sense of achievement.

3.3.3 Building a learning community among the students

The concept of a learning community should also be considered in curriculum planning. Students should be given tasks which involve collaboration through discussion and group problem-solving. The teacher should monitor and facilitate students' working by providing suitable guidance at the right time. A free flow of ideas and insights, with the teacher's input at times, generates a self-perpetuating learning cycle in a student learning community. Building up a learning community among students should be one of the planning targets for Economics teachers.

3.3.4 Flexible class organisation

The flexible use of class time and teacher resources should be explored for schools with two or more Economics classes at one level. Learning activities in a large group can be combined with small group tutoring with the same number of teachers. For example, block timetabling allows flexibility in staff deployment for varied learning activities. In an afternoon block, two classes may be involved in enquiry projects with the support of two teachers and two teaching assistants; and in the next cycle, the same block may be used for lecturing or group learning activities in the school hall, during which only one Economics teacher is required. This arrangement, when used in conjunction with similar arrangements for other subjects, can provide more variety in learning activities with the same teaching staff.

3.3.5 Cross-curricular planning

To maximise student learning, cooperation with other subjects should also be considered. For instance, the study of efficiency and equity issues in pollution can reinforce Geography learning if teachers of these subjects align their teaching schedule suitably. Many approaches to social issues demand multi-disciplinary insights. For a rich learning experience, teachers can design tasks such as enquiry projects on "Avian Flu and patented medicine" in which Economics teachers work with Biology teachers. This will show students that subject boundaries should not be obstacles to learning. The interweaving of similar concepts through different or seemingly unconnected contexts across subjects will have a strong and lasting impact on students, and be rewarding for teachers. Systematic collaboration among subjects to foster greater coherence between Economics and other subjects can be considered when the conditions for doing so are favourable. Collaboration in designing a cross-curricular unit can be the starting point.

3.3.6 Synchronisation of content elements with authentic learning opportunities

Teachers can take advantage of social or public events that are directly related to the content covered in Economics. For instance, the government's announcement of the annual budget in February is related to the topic on taxation, and business opportunities for the public in bazaars in major public parks before the Lunar New Year involve concepts in the topics on business ownership and market structure. The matching of these opportunities with the timing of relevant content components will enhance student learning.

3.3.7 Integrating learning with assessment

Learning should be supported by assessment, and assessment tasks in a learner-controlled mode, such as writing a reflective journal, can be part of learning. Teachers should place more emphasis on the role of continuous and formative assessment in providing feedback to students for improvement.

3.4 Managing the Curriculum

3.4.1 Areas of work

In managing the senior secondary Economics curriculum, teachers should consider the following:

(a) Understanding the curriculum and learning context

- understand the *Secondary Education Curriculum Guide* (2017), *Personal, Social and Humanities Education Curriculum Guide* (2017) and this Guide with a view to adapting the central curriculum for school-based curriculum development;
- consider the community culture and the changing needs of society while drawing up the curriculum plan;
- make reference to the school's vision and mission, strengths and policies, as well as students' abilities and interests, for major curriculum decisions;
- have a shared vision of economics education and a clear understanding of the aims, objectives and learning outcomes of the Economics curriculum; and
- be committed and enthusiastic in collaborating with colleagues in cultivating a positive environment for students to construct knowledge independently and collaboratively.

(b) Planning and implementing the curriculum

- design and implement schemes of work to help students to achieve the curriculum aims and learning objectives of the Economics curriculum;
- design modes of assessment and tasks to promote assessment for learning;
- design a proper learning and teaching sequence that will best meet students' needs and enhance their progress and achievements in learning;
- articulate explicitly the generation and consolidation of teachers' professional knowledge; and
- develop a collaborative learning and teaching culture to enhance the effective delivery of the senior secondary Economics curriculum. Teachers may consider various possibilities, such as:
  - developing a team-teaching culture in order to share teaching experience;
  - creating learning and sharing opportunities through networking with other schools; and
  - exploring timetabling arrangements that can enable collaborative learning or professional development among teachers.

(c) Evaluating the curriculum

- improve the implementation of the Economics curriculum continuously through action research, collaborating with colleagues or experts, etc;
- review the curriculum regularly in accordance with the learning and teaching context and make adjustments whenever necessary;
- establish a system of curriculum evaluation with teachers' full participation and ownership, and record evidence of student learning and achievements; and
- support students in reflecting, regulating and controlling their own learning through the

design of class activities that promote active learning.

(d) Developing learning and teaching resources

- develop, collect and organise learning and teaching resources such as articles, reports, videos and software for student learning and teacher reference, and provide easy access to them;
- make effective use of school and community resources to facilitate student learning; and
- expand learning and teaching resources through the use of information and communication technologies.

For more ideas on learning and teaching resources, please refer to Chapter 6 “Learning and Teaching Resources”.

(e) Building capacity

- keep abreast of the latest curriculum developments, teaching strategies and subject knowledge;
- reflect on practice through video-taping lessons, if possible, with support from peers for more in-depth analysis and alternative views;
- explore and use knowledge creation processes, such as collaboration among teachers in lesson planning, and lesson observation with pre- and post- conferencing;
- build networks with other schools for sharing and professional development purposes; and
- inculcate trust among colleagues through professional discourse and share good practices in Economics learning and teaching, which is a fundamental requirement for the success of the above.

(f) Managing change

- teachers should refer to this Guide to make necessary changes in planning their schemes of work;
- changes in the paradigm and practice of teaching should be based on trust, professionalism and the ability to deliver a curriculum satisfactorily;
- changes in practice should be supported by evidence and research, with continuous reflection on curriculum objectives and achievements;
- decisions to change professional practices should be based on communication and a free flow of information about learning and teaching among teachers; and
- changes in the culture and professional norms should be used as indicators of the success of change management.

3.4.2 Roles of different stakeholders

Principals, PSHE KLA co-ordinators, Economics panel chairpersons, Economics teachers and parents play different roles in the planning, development and implementation of the school-based Economics curriculum. Collaboration is vital in developing and managing the curriculum.

(a) Economics teachers

- keep abreast of the latest changes in curriculum, learning and teaching strategies and assessment practices;
- contribute to Economics curriculum development, implementation and evaluation, and suggest strategies for learning, teaching and assessment;
- develop students' potential in learning economics, and encourage them to learn actively;
- participate actively in professional development, peer collaboration and professional exchange; and
- participate in educational research and projects in order to contribute to the learning and teaching of Economics.

(b) PSHE KLA co-ordinators and Economics panel chairpersons

- lead and plan Economics curriculum development, and set clear directions for it;
- monitor the implementation of the curriculum, and make appropriate adjustments in strategies for learning, teaching and assessment, with due consideration for students' needs;
- facilitate professional development by encouraging panel members to participate in training courses and workshops;
- hold regular formal and informal meetings with panel members to strengthen coordination and communication among them;
- promote professional exchange on subject knowledge and learning and teaching strategies; and
- make the best use of resources available in the school and community.

(c) Principals

- understand students' strengths and interests, as well as the significance of economics learning;
- take into consideration students' needs, school context and the central curriculum framework in formulating the curriculum, as well as instructional and assessment policies;
- coordinate the work of KLA leaders and subject panel chairpersons, and set clear targets

in curriculum development and management;

- empower and support PSHE KLA co-ordinators or Economics panel chairpersons and teachers to promote a culture of collaboration among teachers and to facilitate the learning and teaching of Economics;
- understand the strengths of teachers, and deploy them flexibly to teach student groups with different characteristics;
- convey a clear message to parents regarding the significance of economics education; and
- build networks among schools, community sectors and various organisations at management level to facilitate the development of the curriculum.

(d) Parents

- support the development of the Economics curriculum;
- encourage their children to learn more about the social or economic phenomena around them, especially through the media, to increase their awareness and sensitivity;
- actively communicate with their children on economic issues in which they show interest; and
- understand the value of economics education, and encourage and support their children in enquiry learning.

In sum, curriculum planners need to take curriculum objectives into consideration and devise a deliverable plan with compatible resources so that students' aspirations and potential can be realised. Professional knowledge is the key. Teachers need to adopt a student-centred teaching approach to stimulate students' learning, interest and motivation. Through diversified practical learning activities, students gain knowledge and experience, and see the connections of what they are learning to their daily life. They also develop skills in critical thinking and independent learning, and an increased disposition and ability to collaborate. Teachers should also adopt a range of modes of assessment, and use formative and summative assessment flexibly in order to assess students' performance comprehensively and gauge their development in generic skills, values and attitudes.

Chapter 4 Learning and Teaching

This chapter provides guidelines for effective learning and teaching of the Economics curriculum. It is to be read in conjunction with Booklet 3 of the *Secondary Education Curriculum Guide* (2017), which provides the basis for the suggestions set out below.

4.1 Knowledge and Learning

Economics is a discipline which studies human behaviour in relation to choices, resource allocation and coordination. This body of knowledge has a high level of abstraction which can be very challenging for learners at the senior secondary level. Economic analysis yields answers to, or views on, many questions or paradoxes, and the answers may be contrary to common sense. The analytical skills used in the discipline follow stringent rules of logic and young learners need time and effort to master them.

To master economic knowledge, students have to develop understandings through connecting concepts and theories with real-world events. Knowledge construction in economics requires both inductive and deductive reasoning. In general, young learners find the subject demanding as their economic enquiry skills are still developing, and they have only limited social awareness. Teachers' expertise and support are the keys to student success in studying economics.

The senior secondary Economics curriculum does not require students to master advanced economic theories, which are more suitable for tertiary level study. Very advanced and abstract economic tools should be avoided at this level as they may frustrate students and reduce their interest in the subject instead of preparing them for the future. This curriculum aims to equip senior secondary students with knowledge, skills and dispositions for citizenship, and to prepare them to be effective decision-makers. Learning to learn is emphasised, and encouraging students to ask meaningful questions in economic terms is a priority. Teachers need to create a learning context in which students can be actively engaged in the construction of new understandings.

The framework of this curriculum is designed to create more room for learner-centred activities. Many of the topics chosen, such as consumer surplus and efficiency, are linked to daily decisions. The key concepts and skills required in the curriculum are applicable to

many phenomena that students encounter, and teachers should explore opportunities for the application of these concepts so as to enhance students' understanding. When students see the relevance of economics to their daily life, their motivation for studying the subject will increase. The essential learning experiences in this curriculum, particularly when they are related to current issues, can enrich students' discussion and broaden their views.

4.2 The Learner and Effective Learning

Students new to the discipline of economics are likely to be intrigued by the nature of the subject. It is not about making money, but it studies "What is money?" It does not teach students how to invest, but it deals with costs and benefits of studying at university.

At the beginning of the course, students are not familiar with the focuses and concerns of the subject, and they do not possess the analytical tools and perspectives needed for economic analysis. However, they are already frequently involved in economic decision-making in different aspects of their lives, and this experience is a good entry point. Economic education aims to give students alternative explanations to consider and improved skills for making rational choices. To build the knowledge, skills, analytical tools and perspectives required in the learning of economics, teachers need to adopt a wide repertoire of pedagogical approaches. This has the added advantage of allowing teachers to see how different learning approaches suit students with diverse learning needs, so that they can choose an appropriate mix of approaches to maximise learning for all.

To sustain learners' interest, the new tools they have acquired in economics should enable them to comprehend the world better. They should be provided with many opportunities to demonstrate their understanding through their performance in, for example, doing worksheets, drawing diagrams on the blackboard, giving presentations after an economics game, and preparing a board display on current news or issues.

4.3 Principles and Practices for Effective Learning and Teaching

The above ideas about knowledge, learning and understanding give rise to the following principles for organising learning and teaching activities:

4.3.1 Understanding learning objectives and choosing appropriate pedagogies

The setting of explicit and unambiguous learning objectives helps students to know where they are heading for in their learning. When students are able to make sense of each learning experience and can relate them all to their daily life, their motivation and efforts to learn are enhanced.

Students have varied strengths and dispositions. Whether or not they achieve the learning objectives set depends heavily on how the learning and teaching methods match their needs. A good match can be achieved by using a variety of learning tasks within a unit or lesson, and by adopting a wide range of pedagogies and varying them frequently throughout the senior secondary Economics course.

4.3.2 Guiding principles – meaningful context, engagement, feedback and consolidation

(a) *Use contexts which are meaningful to learners*

Learning will be more effective when students can connect the new ideas they are learning to daily life.

> Example
>
> The concept of "non-price allocation" can be illustrated by the allocation policy used in public housing with which many students are familiar. This new concept can help students to explain many observations about public housing allocation.

(b) *Engage students' attention*

The higher the students' level of attention and the greater their degree of engagement in a lesson, the more effective student learning will be.

> Example
>
> Questions that are interesting or have direct relationship to students' lives such as "Can a minimum wage really help workers?" can engage students' attention. Their engagement can be enhanced if they are provided with adequate background reading materials and have appropriate tools for analysis.

(c) *Provide an appropriate challenge*

Learning tasks which provide an appropriate level of challenge are essential for focusing students' efforts.

> Example
>
> On the topic of "cost", asking for economic explanations of the following question would promote lively discussion in class: "Why is it that Peter's mother, who is good at cooking, has decided not to prepare meals for the family and take up employment outside?" For another example, through writing a proposal for the use of a small piece of land in the school yard using "cost and benefit" analysis, students may produce creative ideas supported with justifications.

(d) *Build on students' prior knowledge and experience*

Students' motivation and understanding can be enhanced by connecting the learning tasks and their existing knowledge and experience.

> Example
>
> Ask students to compare the prices of cold drinks or snacks between sports centres and supermarkets; and this can be followed by a contrast study on the price differences of cold drinks in the same locations. The pattern which emerges can be used to illustrate the concepts of "availability of substitutes" and "price elasticity of demand". These are examples where students have very good prior knowledge and they will probably offer many insightful observations for formulating hypotheses in such types of analysis.

(e) *Provide opportunities for learners to generate new ideas or a new product as the result of learning*

In the process of generating new ideas and producing a new product, a learner uses his/her knowledge actively and learning takes place.

Example

Through designing exhibition boards to display and analyse the differences in industrial structures between Hong Kong and other major cities in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)—such as Shenzhen and Macao—students are tasked to make thematic display to present their research findings. They will compile data on the proportion of primary, secondary, and tertiary industries in each city's GDP, learning to interpret economic indicators and design infographics. Teachers can further guide students to compare the positioning of each city in the GBA as outlined in the national 14th Five-Year Plan with their actual industrial structure, and evaluate the alignment between their actual industrial structure and policy objectives. The activity can be extended to discuss how these cities leverage their complementary strengths under central government policies to jointly advance the GBA's development. Through this exercise, students will not only master economic concepts such as "comparative advantage" and "regional division of labour", but also enhance their data analysis skills, deepen their understanding of the country's regional development strategies, and strengthen their national identity—thereby fostering national education.

(f) *Give timely feedback during the learning process*

Feedback helps a learner to make adjustments to improve his/her knowledge-construction process.

Example

On discussing the relationship between households' income and their demand for a good, some students might have the misconception that, as income increases, demand for goods will in general increase. To correct this misconception, the teacher can ask students to consider their own pattern of rice consumption when income changes.

(g) *Consolidate new learning through debriefing and structured consolidation activities*

Many learners are unable to structure their new learning experiences immediately after a learning activity. Teachers, therefore, need to facilitate and demonstrate the process

of structuring learning experiences in a systematic way. It is best if students are equipped with skills to construct their own lesson notes and consistently apply them in their learning.

(h) *Provide opportunities to apply knowledge and skills to similar or novel contexts*

The application of knowledge to a new task helps to consolidate knowledge and skills. More importantly, this practice helps to strengthen learners' ability to transfer knowledge and skills to different but relevant contexts.

> Example
>
> After learning about "price determination", students can try to predict how the demand for and the prices of related services such as hotel accommodation, catering, and transportation in Hong Kong will change during large-scale international events. Then, they can collect reports on consumer prices during the events and explore the reasons for price increases or fluctuations. This helps students deepen their understanding of price determination and, in turn, construct their economic knowledge.

(i) *Encourage a life-long learning disposition*

It is undesirable for teachers to foster students' heavy dependency on them, as they are helping their students to prepare for future challenges. In designing learning and teaching activities, the teacher should attempt to encourage creativity and develop higher-order thinking skills in students. Through successful learning experiences, students can be empowered. They will gradually develop a set of thinking and problem-solving skills which suit their strengths, as well as a more positive view on the value of effort and persistence. This process helps students to prepare for life-long learning.

(j) *Promote students' capacity for self-directed learning*

The practice of reflection and conscious review of their thinking can increase learners' awareness and control of their thinking processes, and provide a firm basis for independent learning. Teachers can promote the development of self-directed learning through dialogue, reflection, thinking aloud and other similar strategies.

(k) *Choose appropriate examples*

Economics studies human behaviour, and there are plenty of events, cases and issues which teachers can adopt to promote learning. It is important to choose examples that match students' experience and interest.

<table>
<tr><td colspan="2">Example — Teaching "opportunity cost"

"Opportunity cost" is usually introduced to students by using daily examples which are related to students' experience and interest.</td></tr>
<tr><td>Teacher A
Example used
Cost of going to the cinema (2 hours)

Alternative 1: watching a basketball game
Alternative 2: revision

Valuing of these choices usually done by listing priorities

Reasons for using these as examples: Teacher A's students are accustomed to making these decisions.</td><td>Teacher B
Example used
Cost of studying at university

Alternative 1: take up employment
Alternative 2: start a small business

The value of alternatives suggested by students, using monetary returns for comparison

Reasons for using these as examples: Teacher B's students like more challenging questions; most have studying at university as their goal; and this also prepares them for a cost-benefit analysis of attending university as an enquiry project.</td></tr>
</table>

4.4 A Wide Range of Pedagogical Approaches

Teachers play many roles in learning and teaching, such as designing learning contexts and tasks and facilitating student learning by providing feedback, while maintaining the learner's own control of learning during the process. Another equally critical role is acting as a knowledge expert, both in terms of discipline area and pedagogy.

Student learning can take a variety of pathways, and different pedagogies may lead to equally effective learning of different aspects of knowledge. For example, inductive enquiry, involving more student control, may be used for topics such as "economies of scale" which can be illustrated by many daily examples; while more abstract topics such as "the principle of comparative advantage" may need direct instruction by the teacher at the outset, supported by the use of worksheets in class. The next section discusses several pedagogical approaches for teachers' reference, and explains some methods which are commonly used in Economics classrooms.

4.4.1 Teaching as direct instruction

Direct instruction, such as expository teaching and lecturing, involves the transmission of knowledge from teacher to students and has always been one of the approaches frequently adopted by teachers. With the use of advance organisers, appropriate sequencing and structure, clarity of explanation, the citing of illustrative examples and an effective flow of questions and answers, this approach can deliver a body of knowledge to a large audience effectively. However, direct instruction has various well-documented shortcomings in terms of student learning: learners need to be very attentive and highly motivated, and to relate the ideas presented to their prior knowledge. Teachers have to address the fact that some learners lack sufficient prior knowledge and motivation, and may not be able to understand their explanations fully.

To achieve better learning through direct instruction, the structure of presentations should be organised into steps that learners can follow. The terms and concepts employed should be familiar to students, and examples and demonstrations should be used to make explanations convincing and interesting. The appropriate use of analogies and metaphors may also improve the effectiveness of direct instruction.

Examples of analogy

An egg resting at the bottom of a bowl is a frequently used analogy for the concept of "equilibrium" in economics.

The analogy of "the volume of water in a sink and the flow of water from a tap" can be used to illustrate the concepts of stock and flow such as balance of saving deposit as a stock variable and income as a flow variable.

It is important for students to make notes in class, since organising, transforming and summarising their learning in words or diagrams of their own is a useful method of learning. Providing printed notes or outlines to learners does not promote the development of "learning to learn" skills, as no student input or reorganisation is required. This practice may also result in students not paying attention during the teacher's presentation, and has long term adverse effect on student learning, especially for the less motivated.

Analytical exposition and deductive approaches for explaining economic theories through direct instruction – some suggested considerations

For some economic theories, the logical and deductive development of a framework of explanation is needed, for example, the AS-AD approach to explaining short-term economic fluctuation in output and employment. The complexity of macroeconomic phenomena and the variables involved places a limit on the effectiveness of inductive approaches: extracting the critical features of output determination and constructing an analytical tool inductively is too demanding for learners. A logico-deductive approach with explicit assumptions and clear steps to explain the model is more practical. During the learning process, guided practice in using the model to explain changes in output can improve student mastery; and then linking and applying this tool to authentic events can enhance understanding. This mode of learning requires learners' concentration and the ability to think and manipulate abstract variables. It would be prudent to defer these topics to a later stage of the senior secondary Economics course.

4.4.2 Teaching as enquiry

Enquiry learning should be based on knowledge foundation. Students gather information, judge the credibility of information, conduct analysis, generalisation and synthesis, and draw conclusions on questions that are aligned with the aims, objectives and content of the curriculum. Enquiry learning helps students become active learners and enables them to co-construct knowledge with their peers, develop different skills, and cultivate proper values and attitudes. Teachers facilitate, guide, and provide expertise to support their students in this knowledge-construction process. Teachers can develop their own variants from among the many types of enquiry design. For instance, teaching through enquiry may involve individual or group learning tasks. Project learning, field studies, and studies on economic issues are some of the methods commonly adopted by Economics teachers. In some schools, with detailed planning and design, teachers provide students with business operation learning

experiences. These experiential learning activities also help cultivate students' entrepreneurial spirit.

Teachers should be aware of the need for more effective time management and their changed role in enquiry learning. It requires a degree of tolerance of occasional slow progress of students, particularly in the beginning phase. However, teachers should be prepared to provide guidance and feedback when needed. Students' work should be assessed according to the amount of effort involved, the quality of output and other criteria. Any critical views aimed at future improvement should be communicated to students tactfully and constructively. Overall, an attitude of striving for excellence and a collaborative learning culture should be encouraged.

An appropriate balance between the use of enquiry and direct instruction should be established, and this will vary depending on the different needs of students.

For examples of some frequently used enquiry approaches in economics, please refer to Appendix 3.

4.4.3 Teaching as co-construction

In interpreting the world, young learners need to come to terms with the fact that there are divergent views on many issues. Students have to be given the chance to discuss with one another and with their teacher to get access to the views of others. Through discussion and collaboration in group tasks, each individual's knowledge can be constructed and their perspectives widened.

Problem-solving approach

Students have to study authentic issues in which they need to master the causes, consequences and relevant data. They may also have to suggest methods to alleviate or solve the problem based on a sound economic rationale. Such learning tasks provide students with experience in constructing knowledge and generating solutions to problems, and sharpen their critical thinking skills.

Example

A collaborative analysis of the ways to tackle the problem of the narrow tax base in Hong Kong could be given to students as a task, as could the problem of how to relieve congestion in the Cross-Harbour Tunnel in Hung Hom.

The three teaching approaches outlined above have wide applications in classrooms. They are intertwined and complement each other. Teachers should try to vary their use in different learning contexts to achieve optimal results. As students have different abilities and learning styles, the same learning outcome may be achieved through different teaching approaches, and the same learning process may give rise to multiple learning outcomes.

4.4.4 Assessment for learning

Effective learning can be enhanced by appropriate and timely feedback. Assessment plays an important role in supporting learning as it provides both the teacher and the learner with useful information on progress in mastering a concept or skill. The following points should be considered to make assessment helpful in learning:

(a) Tests and test items designed for assessment should be linked to learning objectives. The purpose of the items should be clear to both the teacher and the learners.
(b) The teacher should make the assessments "low-stake", and this message should be conveyed clearly to learners. Explaining the rationale behind the answers and helping students to understand why they made mistakes should be a standard practice.
(c) The knowledge and skills tested should have an appropriate mix of levels of demand. Variations in assessment format, such as the inclusion of open-ended tasks, or collaborative types of assessment task, can be used to cater for diverse student needs.
(d) Frequent but smaller scale assessment tasks which relate to the knowledge and skills developed in class are more effective than larger assessment tasks at longer intervals.
(e) Assessment items may be integrated into worksheets. The items included should be well developed and focus on areas in which students have shown gaps in their understanding. Students can attempt the items on worksheets during class, and the teacher can then explain common patterns of mistakes, and learning can then move on.
(f) Information from assessment should be systematically analysed, and it may be helpful to share the findings with other schools.

Example 1

A school teacher in Tin Shui Wai redesigned a test paper into a worksheet on "price elasticity of demand". The steps in learning were broken down into component parts that the teacher judged would be suitable for her students.
Her students completed the worksheet, and their feedback was very positive. Some reported that they could master the concepts well through working on the tasks.

Example 2

With the help of a spreadsheet, a teacher in Tuen Mun identified and analysed the weaknesses in student learning by a simple and intuitive method. Please refer to Appendix 4 for further information.

4.4.5 The use of IT in supporting learning

With the rapid advancement of technology, learning modes have become increasingly open and flexible. Various mobile applications and online learning platforms have emerged, providing abundant and diverse resources for economics education. Teachers can effectively utilise these tools to design interactive teaching activities, such as guiding students to independently collect economic data through the internet or using online platforms for academic exchanges. However, given the vast and often chaotic nature of online information (including the contents generated by Artificial Intelligence), teachers should provide timely guidance to help students evaluate the credibility of sources and develop strong information literacy and critical thinking skills.

Diverse e-learning tools can also effectively assist students in understanding and applying economic concepts. For example, electronic spreadsheets can clearly illustrate the calculation process of the banking multiplier, while concept-mapping applications help students systematically organise economic theories. When introducing such tools, teachers should clearly define learning objectives, carefully select applications appropriate to students' proficiency levels, and guide them in proper operation and usage. By strategically integrating technological resources, teachers can not only enhance students' learning interest but also cultivate their data analysis and problem-solving skills, ensuring that e-learning tools genuinely strengthen learning outcomes. Below is an example for reference:

Economics teachers can adopt the "flipped classroom" teaching approach by assigning students to watch video clips related to the topic before class, helping them gain preliminary understanding of the subject matter. Through the school's online learning platform, teachers can design simple questions to assess students' understanding of the video content. During class, the focus shifts to addressing students' learning difficulties and misconceptions, while extending discussions to higher-order thinking. This instructional design enhances students' active participation in class, fosters deep learning, and effectively supports them in constructing, integrating, and applying economic knowledge in real-world contexts.

Example

When teaching the concept of "factors affecting change in demand", teachers adopt the "flipped classroom" approach by assigning students to watch instructional videos on the topic before class. Simple assessment questions are uploaded to the school's online learning platform to evaluate students' comprehension of the video content. By analysing students' answers, teachers can gauge students' understanding of the concepts and identify common misconceptions, and adjust the lesson content to address students' difficulties, such as clarifying the distinction between "change in demand" versus "change in quantity demanded" through group discussion to resolve common misunderstandings. Teachers then introduce discussion questions, for example, "How does the healthy diet trend affect the carbonated beverage market?" to guide students in applying demand theory to explore.

This "flipped classroom" instructional design not only enhances students' self-directed learning skills but also optimises classroom time for interactive discussions and enquiry-based activities. The approach increases students' engagement while helping them develop higher-order thinking abilities.

4.4.6 Catering for learner diversity

In some schools, the students taking senior secondary Economics range widely in their abilities and orientation to learning. Some possible ways in which Economics teachers can handle such diversity are suggested below.

(a) The use of more hands-on tasks facilitates the learning of less able students, as can deliberately breaking down the key steps needed for understanding during the teaching process. The main aim is to cultivate in these students the confidence that they have the capacity to achieve the learning objectives. Success in overcoming new challenges will help them to recognise that they can improve their attainment over time through effort and effective strategies, and to see that learning is critical for personal development. At the same time, for students who are unable to manage both the Compulsory Part and the Elective Part, teachers may allow them to choose not to study the Elective Part and provide alternative learning tasks, related to the Compulsory Part, enabling them to utilise the time thus released to focus on their learning in the Compulsory Part to enhance learning effectiveness.

(b) Students with high ability may be given demanding tasks both in and outside the

classroom, with the latter posing more sophisticated challenges. When these activities are done in class, it is important for teachers to lead students to focus on the strategies to be adopted, rather than on displaying their talent. Teachers should give feedback on the strategies learners have adopted and the critical knowledge elements in the tasks. Students should be encouraged to propose fields of enquiry in which they are interested. It may also be helpful to assign to students interesting reading materials, such as novels which use economic tools of analysis or economics articles which challenge conventional wisdom. An orientation to work collaboratively and constructively with peers should also be fostered.

Learning differences can be catered for through providing opportunities for them to demonstrate their understanding openly, like doing presentations, staging drama performances, drawing graphical representations, writing essays or making models.

Ongoing assessment with relevant and explicit criteria can be used to support learning for understanding in students of all ability levels. By incorporating opportunities for students to express their understanding, formative assessment can enhance learning, as mentioned in the general discussion of "assessment for learning" in section 4.4.4.

4.4.7 Reading to learn

"Reading to learn" enables students to deepen their understanding of economic concepts while broadening their perspectives through comprehending, applying, and reflecting on relevant economics readings.

Teachers can provide curated reading lists to encourage extensive reading. Recommended reading materials may include economics reference books, economics-related stories or short-essay collections, financial newspapers, government statistical reports, financial newspaper and journals, academic publications and multimedia reading materials etc. Such diverse, quality materials not only strengthen students' theoretical foundation but also cultivate their ability to interpret economic data and connect theories with real-world applications. Teachers can further transform these reading materials into teaching resources, incorporating elements of values education to nurture proper values in students.

The establishment of reading clubs in school can also play a useful role in student learning.

Example 1

By reading the biographies of renowned economists or related historical books, students can gain a better understanding of the historical background and development context in which economic theories emerged. As a result, they can have a more in-depth understanding of the connections between relevant concepts in the curriculum.

Example 2

Reading stories or collections of short essays related to economics can help students link abstract economic theories to their daily lives, enhancing their interest in the subject. Through vivid plots or real-life examples, students can more intuitively understand relevant economic concepts or theories and realize that economics is everywhere.

Example 3

Teachers can encourage students to read economic feature articles and policy reports issued by the government to help them understand the economic performance and development trends of Hong Kong or other places. By reading the analysis of official data, students can not only validate their learning of related economic topics but also learn how to interpret the economic phenomena behind the data, thereby enhancing their analytical skills.

Example 4

Students can also enhance their learning of Economics through financial newspapers, academic journals, and multimedia reading materials. Economic news reports and columns in financial newspapers help strengthen students' awareness of current affairs; rigorous academic papers in journals help cultivate their logical and critical thinking skills; and multimedia reading materials, which combine text, sound, images, or animations, assist students in understanding abstract economic concepts.

4.5 Classroom Interaction

Interaction between students and teachers is necessary for effective learning. Through exchanging ideas among themselves, students can explore what they know and what they do not know, and clear up their confusions. Some pedagogical practices involving useful interaction and aspects of interaction are set out below.

4.5.1 Prompt and high quality feedback

As outlined above, useful feedback on strengths, common mistakes and weaknesses can be provided through interaction. Students learn best when feedback on their work or their process of learning is prompt. Teachers should also try to provide feedback as helpful as possible on students' work, such as constructive suggestions for improvement, and alternative methods or strategies that could be used. However, judgmental comments should be avoided.

4.5.2 Building quality time into lesson design

In general, it is not beneficial for students to just listen passively throughout a lesson. Teachers should try to include small tasks in their presentations, even in lectures, to increase the time students spend on-task. In enquiry activities, teachers should pay attention to providing quality time for students to interact and generate ideas. Teacher assistance and monitoring are also important to this process.

4.5.3 Scaffolding

At times, students may lack the essential skills or information needed for learning to progress smoothly. Scaffolding is support given to students so that they can learn effectively. This usually involves breaking instructional or learning sequences into manageable parts for students. The component skills and knowledge are developed first through various learning activities, such as practice, learning games, background reading or simulated activities. These component skills and knowledge help students to move on to the next stage of learning. Some of the support can be gradually withdrawn from those who are progressing well. Scaffolding requires knowledge of students' capabilities and the methods that can engage them best in learning. Information technology can also be used to help provide scaffolding.

Example

Students need to master the following knowledge and skills in constructing a demand curve:

(a) the concept of function and ordered pairs;
(b) the skills in translating a demand schedule into a demand curve;
(c) the units of the variables involved ($ per unit for price and quantity per unit time

for quantity demanded);

(d) the understanding of the schedule as a plan; and

(e) the reverse of mathematical convention, that is, the x-axis of a demand curve diagram is for the dependent variable, namely, the quantity demanded.

When planning a unit on this topic, teachers should check how well prepared students are for mastering the above knowledge and skills. They should ensure that students understand them before introducing the construction of a demand curve.

4.5.4 Effective questioning

Skilful questioning can make a significant difference to student learning. Some aspects of effective questioning are outlined below for teachers' consideration:

(a) Questions should be linked to the objectives or focus of learning.
(b) They should help to clarify learning tasks.
(c) They should be set at a level which is appropriate for the students involved.
(d) They should help to promote understanding of concepts and ideas. Simple recall questions about well-established knowledge are less helpful to learning.
(e) Wait time should be given to the whole class before the teacher solicits responses from individual students, with the length of time given for constructing answers being appropriate to the level of demand of the questions. Too short a wait time may discourage some students from thinking actively.
(f) Questions should be sequenced in a way that builds up understanding step-by-step.
(g) Feedback and follow-up questions should be used to help students to focus on the essential points to be learned.

More significant reflection on the part of the teacher during and after each episode of questioning can increase the positive impact on student learning. Video recording of lessons is now a convenient way for teachers to analyse their questioning strategies for improvement; and opportunities to watch other teachers in action should be explored.

4.5.5 Teacher debriefing

For learning activities involving knowledge construction, teachers need to ensure that students have adequate time to process, reorganise and restructure their work into a more systematic form. This is usually done during the debriefing phase after a discussion or an

enquiry activity. Appendix 5 highlights some points to note in the debriefing after a learning activity.

Where the learning activity is experiential, students' experience and feelings should also be touched on in the debriefing, with the teacher helping them to see the main focus or learning goal of the activity.

> Example
>
> A teacher tried to use a hat manufacturing game to let students explore the concept of division of labour. An excerpt from the debriefing for this activity can be found in Appendix 6.

4.6 Learning Community

Earlier sections in this chapter illustrate the important roles of peers and teachers in student learning. By interacting with their peers and teachers, students are exposed to a wide range of perspectives, knowledge, dispositions and abilities, all of which provide a rich source of alternative ideas.

Teachers should try to harness the potential benefits of exposure to a variety of viewpoints by designing learning activities which involve debate, discussion and other collaborative tasks. In the process, a community of learners, characterised by partnership in the development of knowledge among students, and between teachers and their students, may emerge. When the students begin to use higher-order economic concepts, such as cost, in their daily discussions with one another and frequently seek the teacher's views on economic issues, a learning community is in the making. Students are encouraged to take increasing responsibility for developing their own expertise while contributing to the common goals of the community.

4.7 Concluding Remarks

Different learning and teaching strategies can achieve similar learning outcomes depending on: students' ability, learning styles and expectations; teachers' specific strengths; and the learning context. Teachers should try to depart from their regular practices by allowing

some room for experimentation with different approaches when the conditions are conducive to this.

Feedback to students on their answers to questions, or their performance on tasks, presentations and tests has great impact on their learning. For feedback to work effectively, there must be trust between teacher and learner, and among learners; otherwise comments, supportive or critical, may be wrongly interpreted. The development of a strong sense of mutual trust and respect among members of the learning community is an important long-term goal for teachers.

Students need to be given opportunities to demonstrate their understanding in a variety of learning tasks. Presentations after a group discussion, short reporting after the completion of a worksheet, rewriting lesson outline notes after a debriefing, posting solutions to a problem on the intranet, etc are examples of such tasks. Through assessment of the products of these tasks, feedback can be given by the teacher and obtained from peers for learning progress and construction of knowledge.

Learners' understanding is also dependent on their ability to reflect on their learning and think about their thinking. To promote such abilities, schools should encourage students to be more responsible for their own learning and for reflecting on it, while providing a variety of opportunities for them to work in close partnership and share their views with their peers and teachers.

Chapter 5 Assessment

This chapter discusses the role of assessment in learning and teaching Economics, 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 of the public assessment of Economics. 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 *Secondary Education Curriculum Guide* (2017).

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 student strengths and weaknesses in learning.

Secondly, 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 Hong Kong Diploma of Secondary Education (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 such as Economics and the 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 to 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 *Secondary Education Curriculum Guide* (2017) 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' ongoing 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.

Another distinction to be made is between internal assessment and public assessment. Internal assessment refers to the assessment practices that teachers and schools employ as

part of the ongoing learning and teaching process during the three years of senior secondary studies. In contrast, public assessment refers to the assessment conducted as part of the assessment process in place for all schools. Within the context of the HKDSE, this means the public examinations conducted by the HKEAA. On balance, internal assessment should be more formative, whereas public assessment tends to be more summative. Nevertheless, this need not be seen as a simple dichotomy.

5.3 Assessment Objectives

The following assessment objectives are closely aligned with the curriculum framework and the broad learning outcomes presented in earlier chapters. They include:

(a) to know and understand fundamental economic concepts and theories;
(b) to apply such concepts and theories to explain real-world situations, especially the Hong Kong economy;
(c) to understand and interpret economic information presented in various forms;
(d) to acquire the basic tools of economic analysis;
(e) to analyse economic issues;
(f) to evaluate arguments, proposals and policies from different perspectives and make informed judgments;
(g) to present ideas clearly, and in a well-reasoned manner, illustrating answers with diagrams and examples;
(h) to participate as informed persons in the discussion of economic issues and decision-making; and
(i) to become active and responsible citizens and contribute to the well-being of the local community, the nation and the world.

The majority of the above assessment objectives are applicable to both internal and public assessment, while some may not be applicable to public assessment. Those objectives applicable to public assessment are listed in the Regulations and Assessment Frameworks published by the HKEAA.

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 Economics 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 local school contexts. 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. These include students' skills in: reflective, critical and creative thinking; comprehension, translation, application, analysis, communication, cooperation, problem-solving, decision-making, organisation and presentation; and synthesis and evaluation. The weighting given to different areas in assessment should be discussed and agreed among teachers. The assessment purposes and criteria should also be made known to students so that they have a full understanding of what is expected of them.

(b) Catering for learner diversity

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 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 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 from the students themselves

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' life-long 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

The range of assessment practices outlined below 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.

Open book tests

Open book tests, in which students are allowed access to source materials, are suitable for subjects such as Economics which make use of a wide range of printed materials. Questions for this type of test should aim to stimulate the use of reference materials and help students to organise their ideas.

Oral questioning

Oral questioning need not be seen as a test of spoken language only – it can be helpful in other subjects also. It is a flexible approach which allows teachers to discuss matters in depth with able students, to tease out the meaning of obscure statements, and to find out the reasons for conclusions. Teachers are encouraged to try using oral assessment as it can be a valuable supplement to conventional assessment methods.

Objective questions

Objective questions (e.g. multiple-choice and short-answer questions) can sometimes be useful for assessing memorisation, comprehension, translation, application and analysis, but are less effective for evaluating higher-level cognitive skills such as synthesis and evaluation. In developing such questions to assess students' grasp of economic concepts, great care must be taken to ensure that they are expressed in a clear and unambiguous way. Also, for multiple-choice questions, all distractors should be plausible so that the correct answers are not too obvious.

Essay-type questions

Free-response and structured essay questions demand that students organise and present information and arguments effectively, and such questions can also be used to assess their ability to synthesise and evaluate. Once again, attention needs to be paid to the wording of the questions so that their scope and the expected responses are clear to students. Imprecise wording can lead to different interpretations, and so fail to achieve the assessment objectives.

Data-response questions

Data-response questions can be employed to assess students' capabilities in application and problem-solving. Materials containing either authentic or hypothetical information – such as statistical tables, graphs, diagrams, pictures, photographs, newspaper reports and extracts from articles – can be used for setting data-response questions so that students' application of their knowledge in real-world situations can be assessed. In setting such questions, teachers are reminded to keep the scenarios

clear and precise. All irrelevant text and information should be removed to avoid unnecessary distractions to students.

Project work

Project work is a powerful tool for providing students with opportunities to develop skills in thinking, communication, co-operation, problem-solving, decision-making and presentation; and it can also develop their capacity for self-directed learning. The assessment of students' work should not focus on the final report only, but also on the process of learning.

The preparation of journals by students helps them to keep a record of what they have done, the methods they have used, how they felt about their work, and the learning strategies they adopted to solve problems and concerns. Teachers can make use of the journals to assess their students' strengths and weaknesses so that immediate feedback can be provided to improve their learning. Giving interim presentations on the topics being studied, and responding to classmates' questions on them, promotes students' reflection on their work; and the discussions that follow the presentations allow teachers to talk with students about what they have learned, where they are in the process of learning, and what they need to explore further.

Portfolios

Portfolios document students' learning and record their overall efforts, progress and achievement. Their assessment should focus on students' reflective, critical and creative thinking, not just on what has been collected. To make effective and meaningful use of portfolios in assessment, teachers can use some predetermined criteria to assess what students have done and the extent to which the artefacts collected document their progress in learning. Also, sessions can be organised regularly for students to share their portfolios; and the feedback provided by both the teacher and classmates can help students to reflect and improve.

In addition to the assessment methods set out above, teachers should take every opportunity to observe closely and note various aspects of students' learning when they are working individually or in groups, such as their work habits and ability to communicate and cooperate. Teachers can share their observations with students and provide positive feedback and

encouragement to motivate them further.

In general, whatever assessment method is used, students should be given prompt and constructive feedback to help them learn from their mistakes and adjust their learning strategies where necessary. The assessment methods described in this section are by no means exhaustive, and teachers are free to explore other ways of assessing which suit their instructional objectives.

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 Economics places emphasis on testing students' ability to apply their knowledge of economic analysis to practical problems. In addition, it covers generic skills such as mathematical and communication skills; and it also helps to assess students' knowledge and skills in tasks which require a longer time for reading and thinking, such as an in-depth analysis of an economic policy.

(b) Fairness, objectivity and reliability

Students should be assessed in ways that are fair and that 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) Inclusiveness

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

The senior secondary Economics curriculum places emphasis on a balance between breadth and depth of economic understanding, and between theory and application. The public examination contains questions that test students' knowledge of the fundamental and selected areas of economics, and also higher-order thinking skills.

(d) Standards-referencing

The reporting system is "standard-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. Firstly, it provides feedback to students on their performance and to teachers and schools on the quality of the teaching provided. Secondly, it communicates to parents, tertiary institutions, employers and the public at large what students know and are able to do, in terms of how their performance matches the standards. Thirdly, it facilitates selection decisions that are fair and defensible.

5.5.2 Assessment design

The table below shows the assessment design of Economics with effect from the 2028 HKDSE Examination. The assessment design is subject to continual refinement in the light of feedback from live examinations. Full details are provided in the Regulations and Assessment Frameworks for the year of the examination and other supplementary documents, which are available on the HKEAA website (http://www.hkeaa.edu.hk/en/hkdse/assessment/assessment_framework/).

With effect from the 2028 HKDSE Examinations

Component	Part	Weighting	Duration
Public Examination	Paper 1 (multiple-choice questions)	30%	1 hour
	Paper 2 (convention paper) Section A: Short questions will be set on the Compulsory Part of the curriculum. All questions are compulsory. Section B: Structured/essay-type/data response questions will be set on the Compulsory Part of the curriculum. All questions are compulsory. Section C: Structured/essay type questions will be set on Elective Part of the curriculum. Candidates are to attempt the questions from one of the two elective parts.	26% 33% 11%	2 hours 30 minutes

[Note: If students can achieve good performance in the questions of the Compulsory Part in the HKDSE examination, they may be awarded Level 5. (The actual achievable level is determined based on the overall performance of candidates in the public examination of that year.) Regardless of whether students answer the questions in the Elective Part, they will obtain the same grade as long as they achieve the same score.】

5.5.3 Public examinations

The overall aim of the public examination is to assess students' ability to demonstrate their knowledge and understanding of the basic theories of Economics, and to apply them to hypothetical and empirical situations.

Different types of items are used to assess students' performance in a broad range of skills and abilities. The types of items include multiple-choice questions, short questions, data-response questions and structured/essay-type 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.

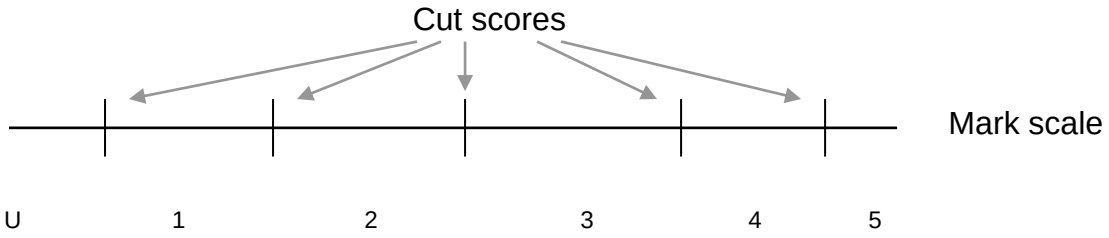


Figure 5.1 Defining levels of performance via cut scores on the mark scale for a given subject

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 attainment 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 Function of Learning and Teaching Resources

The function 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 or other organisations, but also web-based learning materials and computer software, the internet, the media, libraries, resources in the natural environment, and people. All of these resources should be drawn upon to help students to broaden their learning experiences and meet their different learning needs. If used effectively, they will help students to consolidate what they have learned, extend and construct knowledge for themselves, and develop the learning strategies, generic skills, values and attitudes they need – and thus lay a solid foundation for life-long learning. These resources can also enhance learners' motivation, provide support to them and allow them to gradually take more control of their learning, so that they become more effective self-directed learners.

6.1.1 Learning and teaching resources in economics

Teachers should select and adapt cases that highlight social issues and issues of public concern, as this helps students to build connections with the world they live in. The use of such examples from news reports, magazines, television, the internet, books and other publications can enhance meaning and knowledge construction in the subject. Teachers should build up a personal library of cases which illustrate the relevance of economic concepts to human interaction and decision-making. Some examples are given below:

Example 1: Limited edition sneakers

Teachers can use the launch of limited edition sneakers by a well-known sportswear brand to guide students to predict the market reaction. This includes analysing phenomena such as the possible queuing up, the age distribution of those queuing, and other related aspects. Teachers can let students try to verify whether their predictions

are correct, so as to master concepts such as excess demand and opportunity cost.

Example 2: Reports in newspapers and magazines

A recent summary of a research report published by an international economics magazine revealed that China's exports of new energy vehicles (NEVs) have surged to the top globally. This data can help students analyse how the country's industrial upgrading is reshaping international trade patterns, as well as the substitution relationship between NEVs and traditional fuel-powered vehicles. Teachers can further guide students in extending their learning through project-based assignments. For example, they could explore topics such as "The Dual Impact of Lithium Battery Industry Chain Development on Local Economies and Environmental Sustainability in Certain Regions." Such projects not only enhance students' ability to interpret and analyse data but also foster their proper values such as caring for the environment.

Example 3: Pricing strategies of business organisations

Ocean Park Hong Kong and Hong Kong Disneyland can be objects for economic analysis for various topics. For instance, the issue of an annual pass or one-day ticket by Ocean Park can be used for studying consumer surplus and pricing strategies at Ocean Park; and, likewise, the pricing of food and restaurant services in Disneyland can be used to illustrate the same concepts, with those in Ocean Park as a contrasting example. Other concepts such as sources of monopoly power, substitutes, and fixed costs and variable costs can also be developed using examples of the pricing and marketing strategies of the two parks.

Some resources for learning and teaching Economics are specially designed for certain topics or learners. For example, the Curriculum Development Institute, tertiary education institutions, and some government departments, non profit-making organisations and teacher associations provide various resources that can help both teachers and students; and some organisations in the commercial field, especially textbook suppliers, produce materials to support teachers. Useful materials for teachers and students are also available from various sites on the internet.

As learners have different strengths and learning habits, teachers should expose students to a wide range of learning resources. Some may incorporate interesting cases; some may have direct relevance to students' aspirations; and some may even be straightforward practice and

drill exercises. Through observing how students interact and make meaning from these resources, teachers gradually develop the sensitivity and professional knowledge needed to design and use resources appropriately for student learning.

Students can also play a part in the process. If they are encouraged to read about various social and economic issues and browse for information on the internet, they will raise questions for their peers and teachers more often, and provide teachers with more information than they have the time and resources to gather.

6.2 Guiding Principles

Some basic considerations in the selection of textbooks and other learning and teaching resources are as follows. They should:

(a) be in line with the curriculum aims and contain core elements of the curriculum;
(b) arouse students' interest and engage them actively in learning tasks;
(c) take students' prior knowledge and readiness into consideration;
(d) provide access to knowledge, as well as scaffolding, to help students progress in their learning;
(e) cater for students' learning differences by providing a variety of learning activities at different levels of difficulty;
(f) promote independent learning by complementing and extending what students have learned in class;
(g) promote discussion and further enquiry, and make suggestions for student reflection; and
(h) be expressed at a language level suitable for the learners.

More specifically, teachers should take the following points into consideration when choosing cases and examples for the study of economics:

(a) They should be relevant to the concepts or ideas to be learned.
(b) They should be clear, so that students are able to identify the key features of the concepts involved. Examples which involve any ambiguity should not be used for concept attainment, particularly at the early stages of learning.
(c) Students should be familiar with, or be able to comprehend, the cases and examples selected.
(d) Interesting, authentic and novel cases are usually more effective in engaging students' interest.

Resources and materials should not be viewed as a substitute for the teacher, but should complement his/her work and give further support to student learning. Teachers should help students to build their own knowledge structures and develop the focuses of their studies.

6.3 Commonly Used Resources

6.3.1 Textbooks

Well-designed economics textbooks help students to get an overview of the relevant content and concepts in the curriculum. Textbook examples and illustrations, exercises and suggestions for further investigation and learning methods can enhance students' understanding. However, while textbooks give a structured representation of the relevant economic knowledge in text form, students are likely to need the teacher's guidance in constructing and applying knowledge derived from textbooks. Overall, textbooks and notes should be used to consolidate the knowledge developed through students' active participation in learning activities. They should not be a substitute for learning activities as written texts do not normally correspond directly to students' learning experiences.

Teachers must exercise care in the selection of textbooks. A textbook's coverage and presentation of concepts has to be gauged in the light of students' language ability, motivation, understanding of graphics and figures, etc.

Teachers should refer to the following documents in selecting textbooks for their students:

- *Recommended Textbook List / Recommended e-Textbook List*
- *Guiding Principles for Quality Textbooks*
- *Notes on Schools' Selection of Textbooks and Learning and Teaching Resources*

(http://www.edb.gov.hk; then > Curriculum Development > Resources and Support > Textbook Information)

6.3.2 Reference material

However, knowledge relevant to economics learning and teaching is expanding rapidly and teachers are encouraged to keep abreast of the latest resources.

6.3.3 The library

The school library should provide easy access to reading materials and media that support students in their learning of economics. Books, magazines, video programmes, newspaper clippings, etc are indispensable for students' general reading and viewing. Teachers' assigned tasks such as enquiry studies or news commentaries could be supported by the establishment of a reference section storing materials for students' access. The Economics teacher should work collaboratively with the school librarian for the development of this reference section. More importantly, the teacher should actively encourage students to develop the habit of visiting, browsing and searching for information in the library. The public libraries can also play a part in providing an alternative access to information for students. Teachers could provide instructions or tasks for their students to benefit from the support by the public libraries.

6.3.4 Technology and web-based resources

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 connect the information with students' acquired knowledge.

The internet and technology help learning by:

(a) providing audio-visual aids for understanding difficult concepts;
(b) providing access to information from a wide range of sources and processing large quantities of information;
(c) allowing students to work at their own pace with the use of specially designed software or mobile apps;
(d) promoting interaction among students, resources and teachers;
(e) promoting collaboration between students and teachers; and
(f) facilitating the acquisition of information, the development of critical thinking and knowledge construction, given suitable guidance.

There are now many websites devoted to economic analysis, the application of economics to various issues and economics education. Teachers may use them to support their students' learning. Some of these websites provide data and information, such as government websites, and others include expert views and platforms for exchanging ideas. There are also other relevant sites with different target users. Sites from newspapers or media corporations are important sources for recent and archived materials. Given the multitude of sources, students should be advised on how to choose and use them.

6.3.5 Community resources

Many parties can contribute in different ways to helping students learn economics effectively. Some examples of the specific roles of various relevant parties are suggested below.

(1) Parents

Parents are one of the key stakeholders in economics education and most of them have direct experience of the world of work and make consumption, production and investment decisions very often. Teachers may mobilise parents for helping students to learn economics. For instance, teachers may encourage parents to discuss economic and social issues with their sons and daughters; arrange thematic talks to be conducted by parents on different careers, work experiences and problems they have faced in the business world; or even, if possible, enlist parents' support in student revision after school.

The design of economics learning activities can also involve parent participation, particularly when the activities relate to issues of public concern that are of concern to parents.

> Example
>
> Teachers can ask students to conduct interviews with parents to understand their reliance on online shopping in daily life—such as their frequency of using online shopping platforms, reasons for choosing online shopping, and whether this has reduced their visits to physical stores. Students can then categorize and analyse the collected data, further exploring the competitive pressures that online shopping poses on local small retailers and its potential impact on the overall job market.
>
> This learning activity guides students in applying economic concepts like "demand and supply" and "opportunity cost" while using parents' real-life experiences to deepen their understanding and reflection on economic phenomena.

(2) Alumni

Past students can be a rich source of expertise and experience for economics students in a range of areas. Teachers may invite graduates to share their experiences for helping students to see the connection between economic knowledge and the real world. For example, experience of graduates who are now entrepreneurs can help students to have a deeper understanding of the topics of business ownership and the role of entrepreneurs, and

the sharing of graduates who work in the financial sector can let students see the importance of this sector to the Hong Kong economy.

(3) Community organisations

Various community organisations have resources and knowledge relevant to the study of economics. Teachers can guide students to obtain information from such organisations to support their learning. However, students should be helped to get to know the nature and background of the organisations, so that they have a clear view of how to use and interpret the information, and can detect any possible biases or incomplete information in their analysis of economic and social issues.

(4) Government departments and non-government organisations

These departments and organisations are rich sources of support for student learning. Some of the organisations that teachers may consider in planning their learning and teaching activities are listed below:

(a) The Census and Statistics Department of the HKSAR Government and the Hong Kong Monetary Authority (HKMA) provide a great deal of useful social, economic and financial data which students can use to illustrate or test theories they have learned. For example, they can use data on price levels, Gross Domestic Product and money supply to illustrate the Quantity Theory of Money. Teachers may also use the data to illustrate some abstract economic concepts, such as the use of income statistics to illustrate income inequality.

Example: Visit to the Hong Kong Monetary Authority

Arrange for students to visit the Hong Kong Monetary Authority Information Centre and conduct a project-based study to explore the regulatory measures implemented by the HKMA to ensure the sound operation of banks and prevent systemic shocks. This will deepen students' understanding of the HKMA's role, Hong Kong's monetary policy, and the banking industry. It will also help them recognise that the banking system is a crucial pillar for the smooth functioning of social and economic activities, as well as the importance of maintaining monetary and banking stability for economic and financial security.

(b) Some non-government organisations offer many high-quality programmes free-of-charge to schools. For example, students may participate in games or competitions in which they compete as managers of businesses in a simulated market. Through participating in these programmes, students may experience the working of the business world and apply their economic knowledge to solving real business problems.

(c) Other statutory or government-funded organisations such as the Consumer Council, Hong Kong Competition Commission and Hong Kong Trade Development Council contribute in different areas, and can provide useful information on topics such as consumer protection, competition policy, trade policy and the Hong Kong economy.

(5) Business organisations

Many business organisations now welcome visitors and enquiries from the public. Arranging visits to the facilities of some of these organisations can stimulate students to generate issues for enquiry.

> Example: Visits to business organisations
>
> Visiting a logistics warehouse can help students explore the concepts of cost management—for example, how three-dimensional storage systems can improve space utilisation and how different transportation route plans affect cost differences. Students can also examine the long-term cost-effectiveness of automated equipment and the positive externalities of environmental protection measures, extending the discussion to corporate sustainability strategies. Additionally, supply chain collaboration models (such as inventory sharing) and service pricing mechanisms (such as delivery time guarantees) can further deepen students' understanding of cost-efficiency considerations in business operations.

Some organisations can provide data and information for use in in-depth studies.

> Example: Data provided by business organisations
>
> Students can obtain information directly from the MTR Corporation to study the various fare concession schemes offered by the MTR and analyse the reasons behind these different schemes.

Teachers should give assistance and guidance to students about etiquette in contacting business organisations, which is a learning objective for preparing students for adulthood.

(6) The media

The media are one of the major sources of information and views for students. They have a strong influence on the functioning of a modern society as they provide an interface between individuals and the social milieu in which people live and create meaning. However, teachers should guide students in the proper use and interpretation of information and commentaries from this source. Economic tools of analysis should be used to help students to detect bias, prejudice and uninformed decisions or comments.

Teachers can also use relevant reports, articles and productions from the media for the learning and teaching of a variety of issues and events. With appropriate guidance, well-designed activities involving the media can develop students' economic understanding. For instance, programmes produced by local television broadcasting companies, articles in newspapers and journals can be used to get students to discuss current social issues and gain exposure to a variety of perspectives on topics such as efficiency and equity.

> Example: Reports from the media
>
> An investigative TV report on the landfill saturation crisis can prompt students to discuss the importance of environmental protection awareness. Following this, students can apply the concept of externalities to examine the purpose and effectiveness of the plastic shopping bag charging scheme. Teachers can also use this discussion to reinforce students' values of cherishing and protecting the environment.

(7) Teacher community

Membership of professional organisations can contribute to teachers' development by providing a platform for knowledge generation and exchange. Increased opportunities for teachers to interact are needed to break the sense of isolation experienced by some Economics teachers, who have only one or two colleagues to discuss their ideas on learning and teaching strategies and activities with. Sharing experiences strengthens their sense of belonging to a professional community.

6.4 Flexible Use of Learning and Teaching Resources

In choosing from the wide variety of learning and teaching materials available, teachers need to take into account such factors as the nature of the topic, their students' characteristics, and their own pedagogical concerns. Such resources therefore need to be employed flexibly and in this respect teachers' professional judgment is critical.

Example

On the topic of the law of diminishing marginal returns, teacher can use a knowledge-construction simulation game to help students to grasp the related concepts. In this case, the textbook serves as reading material after the activity and the debriefing.

When teaching the topic of Hong Kong as an international financial centre, teachers can incorporate topics related to the Belt and Road Initiative (BRI) of our country. Before lesson, students can be tasked with gathering information on Hong Kong's role as a "super connector" from official websites of our country and the Hong Kong SAR Government. During the lesson, students can then engage in group discussions to explore how various BRI development projects create economic and financial opportunities for Hong Kong.

Variation in student ability suggests the need to expand the sources of resources and vary the way they are used in class.

Example

In a class with students whose academic abilities are very diverse, heterogeneous learning groups can be formed for learning activities. Suitable assignment of roles to group members provides the necessary structure for learning through tasks; and hands-on activities with considerable teacher support and debriefing can make learning manageable even for the less able students.

For students who are more able, teachers can pose challenging tasks for enquiry. Prescribed readings and resources on the internet are needed, and schools may also try to enlist resource persons from their alumni or parents to serve as mentors to the students. These students can also be encouraged to play an active role in supporting

their classmates in group learning activities.

6.5 Resource Management

The 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; and
- teachers to form professional development groups for the exchange of experience.

Face to face or electronic sharing among Economics teachers in different schools is strongly encouraged. As noted above, the small number of Economics teachers in any one school (it seldom exceeds three) limits their opportunities for generating pedagogical knowledge. Cross school collaboration, which is particularly convenient for schools within the same sponsoring organisation, allows teachers to consider possible alternative approaches, which, if implemented, can lead to enhanced learning and teaching. Information technology offers more options for knowledge exchange and development with fewer time and logistical constraints, such as shared viewing of an Economics lesson on the internet.

6.5.1 Resource management in schools

Learning and teaching resources such as articles for student reading, materials for learning activities and test banks for diagnostic and formative purposes need to be effectively managed to facilitate good practices. The following guidelines can help teachers to manage resources effectively:

(a) A classified catalogue of resource materials may be built up through a team effort by the Economics panel. The resource pool may include newspaper cuttings, teacher-designed worksheets, information packs or even projects produced by students. A systematic cataloguing system allows the materials to be easily retrieved to support different teaching methods.
(b) The school intranet can be used to store and share teaching materials.
(c) Teachers can develop a test bank for formative and summative purposes. Assessment items suitable for student self-directed learning can be transferred to a student self-access database in the school intranet system. The items in the bank can include information

about error percentages for options, explanations of the correct answers and assistance for misconceptions associated with distractors. In this way, students can get immediate feedback.

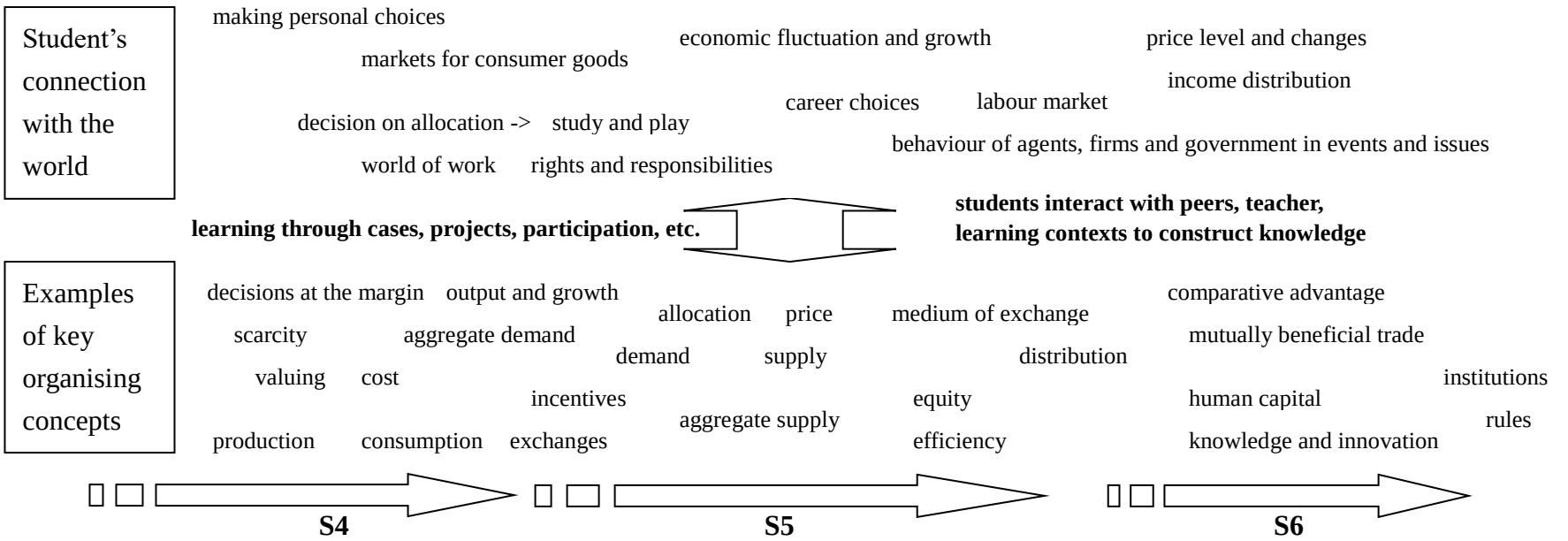
(d) A system should be developed for regular evaluation of learning and teaching activities and their associated resources. This helps in selecting practices and resources that work, and makes their storage and retrieval manageable.

6.6 Conclusion

In general, Economics teachers should consider extending their role as facilitators of student learning rather than just transmitting knowledge. This entails being fully aware of the relevant materials for student learning. Economics teachers therefore need to be knowledgeable about current events in Hong Kong, the mainland and the world to select appropriate cases from newspapers, the internet and the media; and in utilising them, they have to be skilled resource persons and designers of appropriate learning contexts to support student learning.

Example of Teaching Sequence 1: Appendix 1

Classes of students with diverse abilities and aptitudes



A Basic Economic Concepts

B Firms and Production

D Competition and Market Structure

F Measurement of Economic Performance

G National Income Determination and Price Level

C Market and Price

H Money and Banking

I Macroeconomic Problems and Policies

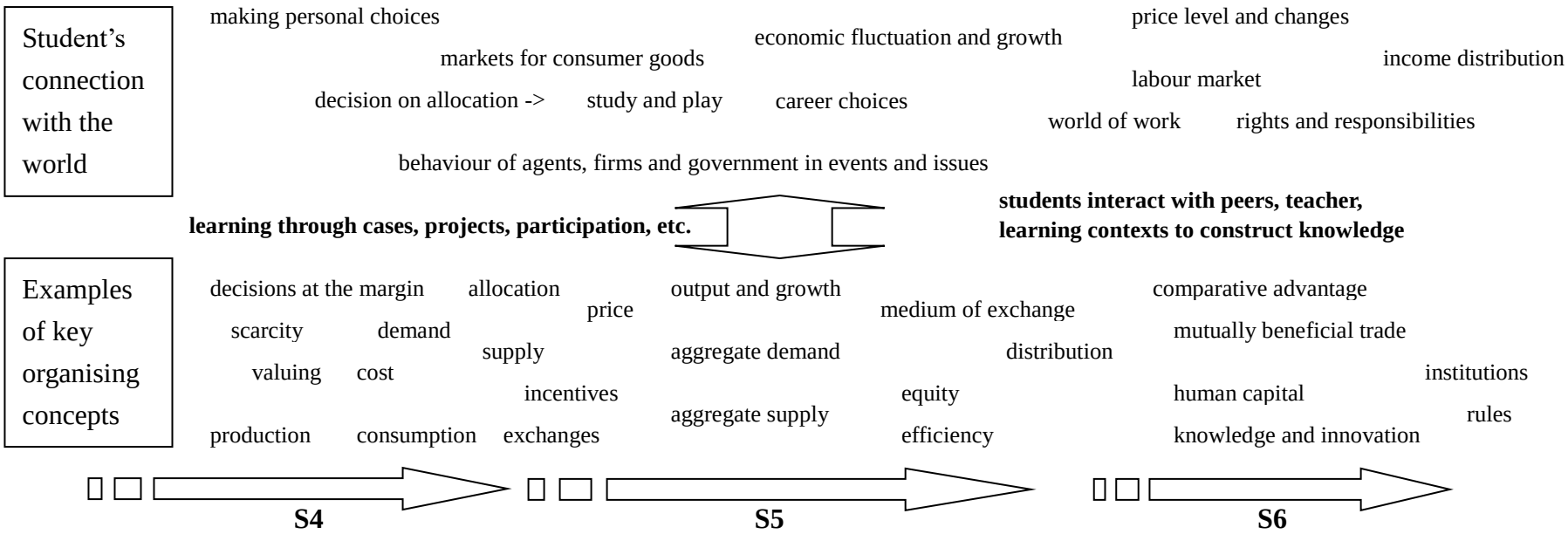
E Efficiency, Equity and the Role of Government

J International Trade and Finance

Elective Part 1 OR Elective Part 2

Example of Teaching Sequence 2:

Classes of students with better academic foundation



A Basic Economic Concepts

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G National Income Determination and Price Level

H Money and Banking

I Macroeconomic Problems and Policies

D Competition and Market Structure

E Efficiency, Equity and the Role of Government

B Firms and Production II

J International Trade and Finance

Elective Part 1 OR Elective Part 2

Appendix 3

Examples of Enquiry Approaches in Economics

Enquiry through Inductive Approaches

This is a frequently used strategy, the success of which depends heavily on having suitable examples to form the basis for understanding. Students are given the opportunity to extract the key features of a concept from the examples. It is an inductive process which helps to develop students' higher-order thinking skills.

> Example
>
> When teaching the topic of market structure, a teacher in a Tai Po school asked students to collect information on the services provided by mobile phone service operators. In class, students' task was to find the common characteristics of these services. They had to use enumerating, listing, grouping and concept labelling skills to complete the task. The teacher provided some guidelines such as "How similar are their products?" during the activity. Then differences in their services or product appeals had to be identified, after which the teacher guided students to work out the major features of this market. The features might include "product differentiation", "non-price competition", and "barriers to entry".

Learning through Participation and Discovery

For many economics topics, teachers can design a setting in which students perform some tasks and interact with their peers so that economic concepts and ideas can be experienced or generated. Games and role-plays are some of the frequently used activities. There are many games designed for constructing concepts such as "division of labour", "trade", "barter", "scarcity", and "opportunity cost". Role-play is sometimes used to help students to see how different roles make their decisions on issues of public concern. The use of such activities can help students to learn through participation.

Example

The Economics and the Business, Accounting and Financial Studies departments of a school collaborated to organise a business experiential learning activity "Campus Bazaar" in which students set up stalls on the school's covered playground during a lunch break in the second semester. Working in groups of 4 to 6, students developed comprehensive business plans covering cost estimation (including procurement and packaging), dynamic pricing strategies responsive to market conditions, and financial projections before implementing their plans through actual product sourcing, marketing, and sales.

During the activity, students needed to carefully observe their classmates' preferences for the goods and pay attention to the pricing strategies of their competitors. Through these hands-on experiences, students can have a more concrete understanding of economic concepts such as "division of labour" and "demand and supply". At the same time, they can also apply skills related to financial education, such as cost control and profit calculation. After the activity, each group donated their profits to charitable organisations, thus guiding students to establish the values of caring for others. The activity also helped students learn to conduct risk assessments, cultivate teamwork and communication skills, and thus foster their entrepreneurial spirit.

Issue-enquiry Approach

Teachers can make use of many economic issues to develop students' analytical, collaboration and communication skills through enquiry, and there are many variations in the design of such activities. For example, teachers can provide sufficient background information on an issue and leave the task of enquiry to the students. Students then have to apply their economic knowledge to identify the nature and causes of the issue, and possibly suggest solutions.

Example 1

The media reported that patients started queueing at some public clinics before dawn. A teacher designed an enquiry into this issue. He collated articles and reports from the press, background information on fees and other relevant information for the

students. Students had to explain the reasons for the queues and why there was no easy solution to this problem.

On the other hand, students may start from learning about a social phenomenon, and then work out the nature of the issue through collecting information and reading relevant reports. The teacher gives support throughout the process.

Example 2

An issue-enquiry about the costs and benefits of a large-scale infrastructure project could be a long term study project in which students have to collect relevant information and set a focus for enquiry. They gradually go into the issue more deeply as they gain access to more detailed information.

Appendix 4

Using a Spreadsheet to Analyse the Weaknesses of Student Learning

Answers of all students to each question in a test are entered in a spreadsheet. The data which has been sorted is shown in the spreadsheet below:

	Question number														
Student number	Q6	Q9	Q1	Q11	Q7	Q13	Q2	Q14	Q15	Q5	Q8	Q12	Q10	Q4	Q3
10	D	C	C	D	A	C	B	B	B	C	D	A	C	C	D
21	D	C	C	D	A	C	B	B	B	C	D	C	C	C	D
30	D	C	C	D	A	C	B	B	B	B	D	A	C	C	D
6	D	C	C	D	A	C	B	B	B	C	D	A	D	A	A
34	D	C	C	D	A	C	B	B	B	C	D	D	B	A	C
17	D	C	C	D	D	C	B	B	B	A	D	A	B	A	C
22	D	C	C	D	A	C	B	B	B	B	D	B	C	A	A
2	D	C	C	D	A	C	A	B	B	C	C	A	A	A	C
29	D	C	C	D	A	C	B	B	A	C	B	B	C	B	C
42	D	C	C	D	A	C	B	B	B	C	D	D	A	A	A
1	D	C	C	D	A	C	B	B	B	C	B	A	A	B	D
18	D	C	C	D	A	C	B	B	B	C	C	B	C	A	D
35	D	C	C	D	A	C	B	B	A	B	B	A	A	C	C
31	D	C	C	D	A	C	B	B	B	B	C	B	C	C	A
9	D	C	C	D	A	C	B	B	B	C	B	A	A	A	D
41	D	C	C	D	A	C	A	B	B	C	D	D	B	A	D
23	D	C	C	D	A	C	B	B	B	A	A	B	A	D	C
3	D	C	C	D	A	D	B	A	C	C	C	A	C	C	A
28	D	C	C	D	A	B	B	B	B	C	C	C	A	C	D
7	D	C	C	D	A	C	B	B	B	C	C	B	B	D	D
40	D	C	C	D	A	C	B	D	B	C	B	A	A	D	A
32	D	C	C	D	A	C	B	B	B	C	C	D	A	B	A
19	D	C	C	D	A	C	B	C	B	A	D	B	B	C	D
11	D	C	C	D	A	A	B	B	B	D	D	B	D	A	C
39	D	C	C	D	A	C	B	A	B	C	C	D	B	C	A
27	D	C	C	D	A	B	B	B	B	C	C	A	D	A	D
36	D	C	C	D	A	C	A	B	B	C	B	D	C	A	D
4	D	C	C	D	A	D	B	B	B	D	D	B	A	A	D
33	D	C	C	D	A	C	C	A	A	C	B	A	C	B	A
12	D	C	C	D	A	C	C	B	A	C	D	D	B	A	D
20	D	C	C	D	A	A	B	C	D	C	D	D	C	A	B
15	D	C	C	D	A	C	B	A	C	C	B	A	D	A	D
24	D	C	C	D	A	C	B	A	B	A	B	B	C	A	B
16	D	A	A	B	A	C	B	B	A	A	D	B	C	C	A
5	D	C	C	D	A	C	D	B	A	C	D	B	D	A	A
37	D	C	C	A	D	C	B	C	B	C	B	D	A	C	D
8	D	C	C	D	C	C	B	A	A	D	D	D	A	A	C
38	D	B	D	D	C	C	B	A	B	A	C	A	B	A	C
13	D	C	C	B	A	C	C	B	D	C	A	B	A	C	A
26	D	C	C	B	A	C	B	C	D	C	C	B	A	C	A
25	D	C	C	D	D	D	D	B	C	C	C	A	B	A	D
14	D	C	C	D	B	C	B	B	A	B	A	B	A	B	D
Correct Ans	D	C	C	D	A	C	B	B	B	C	D	A	C	C	C
Correct %	100%	95%	95%	90%	86%	83%	81%	71%	67%	67%	40%	36%	31%	31%	21%

The shaded cells are the correct answers. Each column in the spreadsheet shows the answers of all students to a particular question, and the columns are arranged in such an order that the question with the highest number of correct responses appears in the first column from the left, and the question with the least number of correct responses in the last column. In other words, questions that most students tend to have difficulties in getting the correct answer concentrate on the right-hand side of the spreadsheet.

Each row shows the answers of a particular student to each question, and the rows are arranged in such an order that the student with the highest total score appears in the first row from the top, and the student with the lowest total score in the last row. In other words,

weaker students concentrate at the bottom of the spreadsheet.

The spreadsheet above provides teachers with useful information on the efficacy of individual questions and students' weaknesses. The teacher may conduct further investigations into the reasons why students made mistakes in particular questions, with an attempt to find out if such mistakes have any connection with learning and teaching, or the layout of questions in the test.

For example, the teacher may notice the strange situation in Question 13, in which many students of average ability made a mistake but most weaker students managed to get the correct answer. The teacher can arrange diagnostic interviews with students to discover the reasons for such an unusual situation.

Appendix 5

Points to Note in Debriefing

1 Students should present their work using a form of representation they are accustomed to, like a concept map or graphic organiser, or an oral presentation with an outline projected on a screen. Such presentations are important to foster students' ownership and accountability.

2 The teacher then invites questions and comments from the audience, but should refrain from giving any conclusive or definitive views at this point. The presenters have to address the questions raised and propose modifications, if any, to their findings.

3 The teacher can provide expert input on how to address the queries or suggest alternative viewpoints for the students to consider. However, the students should be allowed to see the critical points for themselves and provide answers to the queries. It would be relatively easy and time-saving for the teacher to give answers directly, but this would defeat the purpose of student enquiry: students will tend to spend less time and effort in thinking about and tackling challenging issues if they expect their teacher to give an authoritative debriefing at the end of the event. Of course, there may be occasions when the teacher has to give direct responses because the presenters have limited knowledge or have strayed from the topic under consideration, but this should be exceptional. In cases such as this, ways of improving the design of the enquiry, such as assigning more relevant reading materials to students or improving monitoring during the process of enquiry, should be considered.

4 The student group should then prepare a final version of their findings, highlighting the improvements made to other learners.

5 The teacher can consider asking each learner to produce a journal to document his/her progress, in order to develop the habit of reflection and self-monitoring. However, the design of journals should be user-friendly so that it does not impose too heavy a burden on the learners.

Appendix 6

An Excerpt from the Debriefing of a Learning Activity

The following are some of the student responses during the debriefing phase after the game on hat production:

Sam: *Our group can produce more hats than the other groups because we work fast.*

Teacher: *Why can you work so fast?*

Sam: *Er… We worked hard. Er… We cooperated well.*

Teacher: *Can you explain more clearly? How could your group produce nine hats while Mary's group produced only three?*

Sam: *Er … (silence)*

……

Teacher: *Mary, what did you tell the class just now?*

Mary: *We had 10 unfinished hats. Ada was a bit slow in painting the hat. Some of us made too many hats.*

Teacher: *Any suggestions for explaining your group's accomplishment? (inviting Sam's group members)*

Elizabeth (from Sam's group): Peter painted hats fast. John also helped in painting hats.

……

In this example, the concepts of coordination, suitable work assignment and proficiency at work all surfaced in the students' responses. A teacher has to help students to focus on each of the main concepts by pinpointing the key elements from student responses and then ask them to elaborate. A possible line of development might look like this:

Teacher: *Mary, can you comment on the difference between your group and Sam's group concerning the painting of hats?*

Mary: *We just had Ada for painting hats while they had two members. …. Our group members don't like painting hats. We like to practise folding hats. Our group leader said it is OK and let us do what we liked.*

Teacher: *Peter, you are the group leader. Why did you have two workers doing the painting?*

Peter: *At first, only John painted the hats. Later on, I found this was too slow. So I quit folding hats and started painting them. I also asked Elizabeth to help to draw the pattern instead of folding hats. We wanted to win. ……*

Teacher: *Class, what is necessary for effective division of labour?*

Jim: *We need good arrangements. Slow steps need more workers.*

Teacher: *Does anyone have a term for Jim's idea?*

Alvin: *Coordination.*

(The teacher showed approval and put the word on the blackboard.)

Teacher: What can we say about Peter's role?

……

Membership of the CDC-HKEAA Committee on Economics (Senior Secondary)

(From November 2003 to September 2013)

Chairperson:	Mr PANG Ying-yeung	
Members:	Mr CHAN Kwan-nga	(from March 2005 to August 2010)
	Ms CHAN Oi-ching	
	Mr CHAN Wing-keung	
	Mrs CHAN YIP Ah-may, Amy	(until September 2005)
	Mr CHIK Man-hin	(from July 2012)
	Dr CHIU Chi-shing	(from May 2004)
	Dr KWONG Che-leung	(from June 2012)
	Dr LAM Kit-chun	
	Mr LEE Chi-yung	(from November 2010)
	Mr LO Shiu-ming, Tommy	
	Ms LO Wing-kam, Piano	(from November 2010)
	Professor LUI Ting-ming, Francis	
	Mr NG Kei-ling	(until January 2005)
	Dr PANG Ming-fai	(until December 2004)
	Dr TSE Chung-yi	(from January 2011)
	Dr WONG Kam-chau	
	Ms WONG King-wah	(until July 2012)
	Mr YEUNG Chi-kong	(until September 2005)
Ex-officio Members:	Mr LEE Ming-kin, Simon (EDB)	(from July 2006)
	Mr WONG Ka-sing (EDB)	(from November 2004 to June 2006)
	Mr YIU Ming-tak, James (EDB)	(until October 2004)
	Mr TSUI Lik-hong, Leo (HKEAA)	(from September 2010)
	Ms MOK Wai-han, Winnie (HKEAA)	(until August 2010)

Secretary:

Ms WONG Kam-fung, Grace (EDB)	(from October 2007)
Mr LEE Ming-kin, Simon (EDB)	(from May 2006 to September 2007)
Ms CHUI Kit-chi, Lucia (EDB)	(until April 2006)

Membership of the CDC-HKEAA Committee on Economics (2013-2015)

(From September 2013 to August 2015)

Chairperson:	Mr LEE Chi-yung	
Members:	Mr AU Ching-lim	
	Dr CHAN Hing-lin	
	Mr CHIK Man-hin	
	Dr CHIU Chi-shing	
	Dr Barick CHUNG	
	Dr FONG Yuk-Fai	
	Dr HO To-ming	
	Dr KWONG Che-leung	
	Ms LO Wing-kam	
	Mr PANG Ying-yeung	
	Ms SO Wing-yan	
	Dr WONG Chung-leung	
	Ms YAU Siu-ning	
	Dr YUNG Chor-wing	
Ex-officio Members:	Mr KONG Siu-cheuk (EDB)	(from December 2014)
	Ms WONG Kam-fung, Grace (EDB)	(from August 2014 to November 2014)
	Mr LEE Ming-kin, Simon (EDB)	(until July 2014)
	Mr TSUI Lik-hong, Leo (HKEAA)	
Secretary:	Ms WONG Kam-fung, Grace (EDB)	(until July 2014; from December 2014)
	Ms. CHAN Ka-po (EDB)	(from August 2014 to November 2014)

Membership of the CDC-HKEAA Committee on Economics (2015-2017)

(From September 2015 to August 2017)

Chairperson:	Dr MAK Kwan-wing (until January 2017) Mr LEE Chi-yung (from June 2017)
Members:	Mr AU Ching-lim Dr CHAN Hing-lin Ms CHAN Sau-fong Mr CHIK Man-hin Prof FONG Yuk-Fai Dr HO To-ming Ms LO Wing-kam (Co-opted member) (from December 2015) Dr KWONG Che-leung Mr LAM Kwok-on Dr LEE Chi-chung (Co-opted member) (from December 2015) Mr LEE Chi-yung (Co-opted member) (from December 2015) Ms SO Wing-yan Dr WONG Chung-leung Ms YAU Siu-ning Dr YUNG Chor-wing (Co-opted member) (from December 2015)
Ex-officio Members:	Mr KONG Siu-cheuk, Edward (EDB) Mr TSUI Lik-hong, Leo (HKEAA)
Secretary:	Ms WONG Kam-fung, Grace (EDB)

Membership of the CDC-HKEAA Committee on Economics (2017-2019)

(From September 2017 to August 2019)

Chairperson: Mr AU Ching-lim

Members:
Dr CHAN Hing-lin
Ms CHAN Sau-fong
Prof FONG Yuk-Fai
Dr HO To-ming
Mr LAM Kwok-on
Dr LEE Chi-chung
Ms SO Wing-yan
Mr TSE Chun-hung
Dr WONG Chung-leung
Ms YAU Siu-ning
Dr YUNG Chor-wing

Ex-officio Members:
Mr KONG Siu-cheuk, Edward (EDB) (until December 2018)
Mr CHAN Hong (EDB) (from January 2019)
Mr TSUI Lik-hong, Leo (HKEAA)

Secretary: Ms WONG Kam-fung, Grace (EDB)

Membership of the CDC-HKEAA Committee on Economics (2019-2021)

(From September 2019 to August 2021)

Chairperson:	Mr CHUNG Wai-tak
Members:	Ms AU YEUNG Shuk-lan
	Mr CHAN Chi-yuen
	Mr CHAN Wai-kit
	Dr CHOW Yan-chi
	Dr LEE Chi-chung
	Ms Renee LEUNG
	Dr WONG Kin-ming
	Mr TSE Chun-hung
	Dr SIU Kam-wing
Ex-officio Members:	Mr CHAN Hong (EDB)
	Mr TSUI Lik-hong, Leo (HKEAA)
Secretary:	Ms WONG Kam-fung, Grace (EDB)

Membership of the CDC-HKEAA Committee on Economics (2021-2023)

(From September 2021 to August 2023)

Chairperson: Mr CHUNG Wai-tak

Members: Mr CHAN Chi-yuen
Mr CHAN Wai-kit
Dr CHOW Yan-chi
Mr CHUI Chi-keung
Ms Renee LEUNG
Dr WONG Ka-fu
Dr WONG Kin-ming
Mr TSE Chun-hung
Dr SIU Kam-wing

Ex-officio Members: Mr CHAN Hong (EDB)
Mr TSUI Lik-hong, Leo (HKEAA) (until November 2021)
Mr CHU Pun-tung (HKEAA) (from December 2021)

Secretary: Ms WONG Kam-fung, Grace (EDB)

Membership of the CDC-HKEAA Committee on Economics (2023-2025)

(From September 2023 to August 2025)

Chairperson: Mr CHUNG Wai-tak

Members:
Dr AU Pak-hung
Mr CHAN Wai-kit
Dr CHOW Yan-chi
Mr CHUI Chi-keung
Mr FUNG Hon-yin
Ms LAM Hang-yin
Mr LEE Ka-yin
Ms Renee LEUNG
Dr WONG Ka-fu (until July 2024)
Dr WONG Kin-ming

Ex-officio Members:
Mr CHAN Hong (EDB)
Mr CHU Pun-tung (HKEAA)

Secretary: Ms WONG Kam-fung, Grace (EDB)