

Wah Yan College Kowloon
F.5 Mathematics(Core&M1) Scheme of Work (2016-2017)

Textbook	<ol style="list-style-type: none"> 1. New Progress in Senior Mathematics 5 (Compulsory Part) (with Public Exam Essentials and Student's Revision CD, WY) 2. New Progress in Senior Mathematics 6A (Compulsory Part) (with Public Exam Essentials and Student's Revision CD, 2nd) 3. New Progress in Senior Mathematics (Extended Part) Module 1 Book 1 (with Student's Handbook, Student's Bridging Handbook and Student's Revision CD, WY) 4. New Progress in Senior Mathematics (Extended Part) Module 1 Book 2 (with Student's Handbook and Student's Revision CD, 2nd)
Other Resources	

SL: Scheduled number of lessons

AL: Actual number of lessons

School Term	Weeks	Topics/ Extended Parts*	Learning Objectives/ Teaching Focus	SL/AL	Teaching and Learning Activities	Consolidation and Assessment	Values [#]
First Term (1/9/2016- 1/2/2017, Weeks 1 to 17)	1-3	Chapter 14 Trigonometry (1) <ul style="list-style-type: none"> • To understand sine, cosine and tangent functions, and their graphs and properties, including maximum and minimum values and periodicity • To solve the trigonometric equations $a \sin \theta = b$, $a \cos \theta = b$ and $a \tan \theta = b$ (solutions in the interval from 0° to 360°) • To simplify expressions including sine, cosine and tangent of $-\theta$, $90^\circ \pm \theta$, 180° 	Let's Review (p.160) <ul style="list-style-type: none"> • Teachers can ask students to review trigonometric ratios in right-angled triangles, trigonometric ratios of special angles and trigonometric identities. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Worksheet 14.0 (Sets 1 & 2) • Test Bank 14.0 	

	$\pm \theta$, etc Non-foundation <ul style="list-style-type: none"> To solve other trigonometric equations (solutions in the interval from 0° to 360°) 					
		14.1 Introduction to Trigonometry (pp.161 – 164) <ul style="list-style-type: none"> Teachers can remind students that angle of rotation is different from true bearings. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Worksheet 14.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.1 Test Bank 14.1 	
		14.2 Trigonometric Ratios of Arbitrary Angles (pp.164 – 170) <ul style="list-style-type: none"> Teachers can introduce the definition of trigonometric ratios of arbitrary angles. Teachers may remind students that the trigonometric ratios may be either positive or negative depending upon the quadrant in which the angle lies. 	1 hour /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Worksheet 14.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.2 Test Bank 14.2 	
		14.3 Finding Trigonometric	1 hour	Demonstrating some	<ul style="list-style-type: none"> Additional 	

			<p>Ratios Without Using a Calculator (pp.171 – 178)</p> <ul style="list-style-type: none"> Teachers can introduce the trigonometric ratios of the angles formed by coordinates axes. Teachers can introduce the concept of reference angle and finding trigonometric ratios by using the reference angle. Teachers may point out that if one of the trigonometric ratios is given, the other trigonometric ratios of the angle can be found by the definitions. 	/1 hour	examples and giving some classwork	<p>Examples 14.1 – 14.2</p> <ul style="list-style-type: none"> Worksheet 14.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.3 Test Bank 14.3 	
			<p>14.4 Trigonometric Identities (pp.178 – 181)</p> <ul style="list-style-type: none"> Teachers may introduce the trigonometric identities to simplify the expressions. 	1 hour /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 14.3 – 14.5 Worksheet 14.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.4 Test Bank 14.4 	

			<p>14.5 Trigonometric Equations (pp.181 – 186)</p> <ul style="list-style-type: none"> Students should make use of the reference angle to work out the solution of simple trigonometric equations in the interval of 0° to 360°. <p><i>Non-foundation</i></p> <ul style="list-style-type: none"> Teachers can introduce the solving skills of some harder trigonometric equations. 	1 hour /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 14.6 – 14.9 Worksheet 14.5 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.5 Test Bank 14.5 	
			<p>14.6 Graphs of Trigonometric Functions (pp.186 – 195)</p> <ul style="list-style-type: none"> Students should be able to sketch and recognize the graphs of sine, cosine and tangent and identify their periodicity and the ranges of values of trigonometric functions. Teachers may ask students to draw the graph using computer <p><i>Non-foundation</i></p> <ul style="list-style-type: none"> Teachers can discuss the transformation on the graphs of trigonometric functions with students. 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 14.10 Worksheet 14.6 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.6 Test Bank 14.6 	
			<p>14.7 Graphical Solutions of</p>	1 hour	Demonstrating some	<ul style="list-style-type: none"> Additional 	

			<p>Trigonometric Equations (pp.196 – 203)</p> <ul style="list-style-type: none"> By reading graphs or adding a suitable straight line on a trigonometric graph, students are guided to find graphical solutions of trigonometric equations. 	/1 hour	examples and giving some classwork	<p>Examples 14.11 – 14.12</p> <ul style="list-style-type: none"> Worksheet 14.7 (Sets 1 & 2) Ongoing Assessment Package: Quiz 14.7 Test Bank 14.7 	
			<p>Enrichment Mathematics – Development of Trigonometry (pp.216 – 217)</p> <ul style="list-style-type: none"> Teachers can introduce the method to find trigonometric ratios other than using a calculator. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
4-5	<p>Non-foundation</p> <p>Chapter 15 Trigonometry (2)</p> <ul style="list-style-type: none"> To study and use the formula $\frac{1}{2}ab\sin C$ for calculating the areas of triangles To study and use the sine and 	<p>Let's Review (p.220)</p> <ul style="list-style-type: none"> Teachers can help students review the arc length and the area of a sector. Teachers can help students review the area of a triangle. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Worksheet 15.0 (Sets 1 & 2) Test Bank 15.0 		

		<p>cosine formulas to solve oblique triangles</p> <ul style="list-style-type: none"> To understand and apply Heron's formula 					
			<p>15.1 Area of Triangles (pp.221 – 227)</p> <ul style="list-style-type: none"> Teachers can introduce to students that the area of triangles can be found by the formula $\frac{1}{2}absin C$. 	<p>1 hour /1 hour</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 15.1 – 15.3 Worksheet 15.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 15.1 Test Bank 15.1 	
			<p>15.2 Sine Formula (pp.228 – 237)</p> <ul style="list-style-type: none"> Teachers can introduce the sine formula to students. Teachers may point out that if two sides and one non-included angle of a triangle are given, then we can apply the sine formula to solve the triangle. Teachers may ask students to construct various types of triangles by using a geometric 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 15.4 – 15.7 Worksheet 15.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 15.2 Test Bank 15.2 	

			software and conclude the number of triangles can be formed.				
			<p>15.3 Cosine Formula (pp.238 – 246)</p> <ul style="list-style-type: none"> • Teacher may point out that because of the limitations of sine formula, cosine formula is used as another tool to solve a triangle. • Teachers may point out that if two sides and the included angle of a triangle are given, then we can apply the cosine formula to find the remaining side. • Teachers may point out that if three sides of a triangle are given, we can apply the cosine formula to find the unknown angles. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 15.8 – 15.9 • Worksheet 15.3 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 15.3 • Test Bank 15.3 	
			<p>15.4 Heron’s Formula (pp.246 – 251)</p> <ul style="list-style-type: none"> • Teachers may point out if three sides of a triangle are known, then we can apply Heron’s Formula to find the 	1 hour /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 15.10 – 15.11 • Worksheet 15.4 (Sets 1 & 2) 	

			area of the triangle.			<ul style="list-style-type: none"> • Ongoing Assessment Package: Quiz 15.4 • Test Bank 15.4 	
			<p>Enrichment Mathematics – An Alternative Proof of the Cosine Formula (pp.266 – 267)</p> <ul style="list-style-type: none"> • Teachers can introduce an alternative proof of cosine formula. Also, teachers can find an alternative proof of sine formula 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
6-7	Non-foundation	<p>Chapter 16 Trigonometry (3)</p> <ul style="list-style-type: none"> • To apply trigonometric formulas in solving two-dimensional problems • To explore the angle between two straight lines, the angle between a straight line and a plane, the angle between two planes, the distance between a point and a line and the distance between a point and 	<p>16.1 Applications in Two-dimensional Problems (pp.270 – 279)</p> <ul style="list-style-type: none"> • Teachers can point out that if a suitable numbers of angles and sides of a triangle are known, we can solve the triangles by using the sine formula and the cosine formula. 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 16.1 – 16.3 • Worksheet 16.1 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 16.1 • Test Bank 16.1 	

	<p>a plane in three-dimensional geometry</p> <ul style="list-style-type: none"> To apply trigonometric formulas in solving three-dimensional 					
		<p>16.2 Basic Terminology in Three-dimensional Figures (pp.279 – 295)</p> <ul style="list-style-type: none"> For a question related to three-dimensional space, teachers should point out that students can solve some simple questions about angle between two straight lines first. Teachers can remind students that finding an angle between a straight line and a plane can be treated as finding an angle between two straight lines. Teachers may let students make some three-dimensional models, then find a specified angle of the model. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 16.4 – 16.9 Worksheet 16.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 16.2 Test Bank 16.2 	
		<p>16.3 Applications in Three-dimensional Problems (pp.295 – 301)</p> <ul style="list-style-type: none"> Teachers can point out that we 	<p>1 hour /1 hour</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 16.10 – 16.11 Worksheet 	

			can solve a three-dimensional problem by find a suitable triangle in the figure.			16.3 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 16.3 • Test Bank 16.3	
			Enrichment Mathematics – More Applications of Trigonometry (pp.318 – 319) • Teachers can introduce that there are a lot of applications of trigonometry such as surveying, navigation, astronomy, geography, etc.	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
8-10	Chapter 4 (M1) Differentiation • To understand the addition rule, product rule, quotient rule and chain rule of differentiation • To find the derivatives of algebraic functions, exponential functions and logarithmic functions • To recognize the concept of	4.1 Basic Rules of Differentiation (pp.96 – 103) • Students should be able to apply the power rule and/or addition rule to find derivatives of functions.	2 hours /2 hours	Demonstrating some examples and giving some classwork	• Additional Example 4.1 – 4.6 • Worksheet 4.1 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 4.1 • Test Bank 4.1		

	<p>the second derivative of a function</p> <ul style="list-style-type: none"> To find the second derivative of an explicit function 					
		<p>4.2 The Product and Quotient Rules of Differentiation (pp.104 – 110)</p> <ul style="list-style-type: none"> Students should be able to apply the product rule and/or quotient rule to find derivatives of functions. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 4.7 – 4.9 Worksheet 4.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 4.2 Test Bank 4.2 	
		<p>4.3 Derivatives of Composite Functions (pp.110 – 115)</p> <ul style="list-style-type: none"> Students should be able to apply chain rule to find the derivatives of composite functions. 	<p>1.5 hours /1.5 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 4.10 – 4.13 Worksheet 4.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 4.3 Test Bank 4.3 	
		<p>4.4 Derivative of e^x (pp.116 – 120)</p>	<p>1 hour /1 hour</p>	<p>Demonstrating some examples and giving</p>	<ul style="list-style-type: none"> Additional Examples 	

			<ul style="list-style-type: none"> Students should be able to find the derivatives of exponential functions. 		some classwork	4.14 – 4.16 <ul style="list-style-type: none"> Worksheet 4.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 4.4 Test Bank 4.4 	
			4.5 Derivatives of Inverse Functions (pp.120 – 128) <ul style="list-style-type: none"> Students should be able to differentiate inverse functions and natural logarithmic functions, and apply logarithmic differentiation. 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 4.17 – 4.22 Worksheet 4.5 (Sets 1 & 2) Ongoing Assessment Package: Quiz 4.5 Test Bank 4.5 	
			4.6 Derivatives of a^x and $\log_a x$ (pp.129 – 133) <ul style="list-style-type: none"> Students should be able to differentiate exponential and logarithmic functions. 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Example 4.23 – 4.26 Worksheet 4.6 (Sets 1 & 2) Ongoing Assessment Package: Quiz 	

						4.6	
			4.7 Second Derivative (pp.134 – 137) <ul style="list-style-type: none"> Students should be able to find the second derivatives of functions. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Example 4.27 – 4.28 Worksheet 4.7 (Sets 1 & 2) Ongoing Assessment Package: Quiz 4.7 Test Bank 4.7 	
			Enrichment Mathematics – An Important Theorem in Calculus – Mean Value Theorem (pp.146–147) <ul style="list-style-type: none"> This enrichment introduces the mean value theorem and Rolle’s theorem. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
11-14	Chapter 5 (M1) Applications of Differentiation <ul style="list-style-type: none"> To use differentiation to solve problems involving tangents, rates of change, maxima and minima Local and global extrema 	5.1 Equations of Tangents (pp.150 – 155) <ul style="list-style-type: none"> Students should be able to find the slopes and equations of the tangents to a curve. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 5.1 – 5.4 Worksheet 5.1 (Sets 1 & 2) Ongoing 		

						Assessment Package: Quiz 5.1 <ul style="list-style-type: none"> • Test Bank 5.1 	
			5.2 Rates of Change (pp.156 – 165) <ul style="list-style-type: none"> • Teachers may ask students to give examples of instantaneous rate of change. • Students should be able to find the instantaneous rates of change of curves at given points, and solve practical related rates problems. 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 5.5 – 5.8 • Worksheet 5.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 5.2 • Test Bank 5.2 	
			5.3 Local Extrema (pp.166 – 176) <ul style="list-style-type: none"> • Students should be able to find the local extreme points of curves by using the First Derivative Test and the Second Derivative Test. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 5.9 – 5.12 • Worksheet 5.3 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 5.3 • Test Bank 5.3 	
			5.4 Optimization Problems (pp.177 – 187)	2 hours /2 hours	Demonstrating some examples and giving	<ul style="list-style-type: none"> • Additional Examples 	

			<ul style="list-style-type: none"> Students should be able to find the extrema of functions in the given intervals and solve optimization problems. 		some classwork	5.13 – 5.18 <ul style="list-style-type: none"> Worksheet 5.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 5.4 Test Bank 5.4 	
			Enrichment Mathematics – Price Elasticity of Demand (p.199) <ul style="list-style-type: none"> This enrichment introduces the concept of price elasticity of demand, an important application of derivatives in economics. Teachers may explain more about the concept of absolute values and the related signs ‘ ’. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
Second Term (2/1/2017-17/7/2017, Weeks 19 to 47)	19-21	Chapter 18 Arithmetic and geometric Sequences <i>Non-foundation</i> <ul style="list-style-type: none"> To understand the concepts and the properties of arithmetic and geometric 	18.1 Introduction to Sequences (pp.2 – 8) <ul style="list-style-type: none"> Teachers can ask students to investigate, appreciate and observe the patterns of various number sequences such as 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 18.1 – 18.3 Worksheet 18.1 (Sets 1 & 2) 	

	<p>sequences</p> <p>Non-foundation</p> <ul style="list-style-type: none"> To understand the general terms of arithmetic and geometric sequences <p>Non-foundation</p> <ul style="list-style-type: none"> To find the sum of a finite number of terms of an arithmetic sequence and a geometric sequence <p>Non-foundation</p> <ul style="list-style-type: none"> To find the sum to infinity for certain geometric sequences <p>Non-foundation</p> <ul style="list-style-type: none"> To solve real-life problems relating to sequences 	<p>polygonal numbers, arithmetic and geometric sequences, Fibonacci sequence, etc.</p> <ul style="list-style-type: none"> Teachers can generalize the general terms of some sequences with simple derivation. Teachers can point out that some sequences do not have definite patterns, and give some corresponding examples. 			<ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 18.1 Test Bank 18.1 	
		<p>Non-foundation</p> <p>18.2 Arithmetic Sequence (pp.8 – 17)</p> <ul style="list-style-type: none"> Teachers can introduce the pattern of arithmetic sequences. 	<p>3 hours /3 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 18.4 – 18.8 Worksheet 18.2 (Sets 1 & 2) Ongoing Assessment 	

						Package: Quiz 18.2	
			<p><i>Non-foundation</i></p> <p>18.3 Geometric Sequence (pp.18 – 26)</p> <ul style="list-style-type: none"> Teachers can introduce the pattern of geometric sequences. Teachers can ask students to review the techniques for solving exponential equations. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 18.9 – 18.13 Worksheet 18.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 18.3 Test Bank 18.3 	
			<p><i>Non-foundation</i></p> <p>18.4 Summing an Arithmetic Sequence (pp.27 – 34)</p> <ul style="list-style-type: none"> Teachers can deduce the formula for summing an arithmetic sequence. 	4 hours /4 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 18.14 – 18.17 Worksheet 18.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 18.4 	

						<ul style="list-style-type: none"> • Test Bank 18.4 	
		<p>Non-foundation</p> <p>18.5 Summing a Geometric Sequence (pp.34 – 47)</p> <ul style="list-style-type: none"> • Teachers can deduce the formula for summing a geometric sequence. • Teachers may ask students to investigate the property of geometric series when $r = 1$. • Teachers can ask students to investigate the formula for sum to infinity. 	<p>5 hours /5 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 18.18 – 18.24 • Worksheet 18.5 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 18.5 • Test Bank 18.5 		
		<p>Enrichment Mathematics – Analysis on the Spreading of Disease Using Geometric Series (pp.60 – 61)</p> <ul style="list-style-type: none"> • The applications of the formulas of sequences in solving real-life problems should be discussed. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>			
21-22	<p>Non-foundation</p> <p>Chapter 19 Permutation and Combination</p> <ul style="list-style-type: none"> • To understand the addition rule and multiplication rule in the counting principle 	<p>19.1 Counting Principle (pp.64 – 75)</p> <ul style="list-style-type: none"> • Teachers may ask student to draw a diagram to illustrate all 	<p>4 hours /4 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 19.1 – 19.5 • Worksheet 		

	<ul style="list-style-type: none"> • To understand the concept and notation of permutation • To solve problems on the permutation of distinct objects without repetition • To understand the concept and notation of combination • To solve problems on the combination of distinct objects without repetition 	the possible ways.				19.1 (Sets 1 & 2) <ul style="list-style-type: none"> • Ongoing Assessment Package: Quiz 19.1 • Test Bank 19.1 	
		19.2 Permutation (pp.75 – 86) <ul style="list-style-type: none"> • Teachers can introduce the definition of factorial. • Teachers can introduce the concept of permutation. 	3.5 hours /3.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 19.6 – 19.9 • Worksheet 19.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 19.2 • Test Bank 19.2 		
		19.3 Combination (pp.86 – 93) <ul style="list-style-type: none"> • Teachers can introduce the concept of combination. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 19.10 – 19.12 • Worksheet 19.3 		

						(Sets 1 & 2) <ul style="list-style-type: none"> • Ongoing Assessment Package: Quiz 19.3 • Test Bank 19.3 	
			Enrichment Mathematics – More about Permutation (pp.106 – 107) <ul style="list-style-type: none"> • Teachers can point out that the permutation of n distinct objects and n indistinct objects are different. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
24-25	Non-foundation Chapter 20 More about Probability <ul style="list-style-type: none"> • To recognize the notation of set language including union, intersection and complement • To understand the addition law of probability and the concepts of mutually exclusive events and complementary events • To understand the multiplication law of 	20.1 Basic Concepts of probability (pp.110 – 117) <ul style="list-style-type: none"> • Teachers can teach the concept of sets, elements, union, intersection and complement. • Teachers can teach the notation of set language. • Teachers can teach the concept and definition of probability. • Teachers can point out the 	1.5 hours /1.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 20.1 – 20.2 • Worksheet 20.1 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 20.1 • Test Bank 20.1 		

	<p>probability and the concept of independent events</p> <ul style="list-style-type: none"> • To recognize the concept and notation of conditional probability • To use permutation and combination to solve problems relating to probability 	<p>difference between theoretical probability and experimental probability.</p>				
		<p>20.2 Addition Law of probability (pp.118 – 130)</p> <ul style="list-style-type: none"> • Teachers can use a Venn diagram to illustrate this formula. • Teachers can demonstrate the concepts of probability by tossing coins, throwing dice and drawing cards. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 20.3 – 20.7 • Worksheet 20.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 20.2 • Test Bank 20.2 	
		<p>20.3 Multiplication Law of Probability and Independent Events (pp.130 – 140)</p> <ul style="list-style-type: none"> • Teachers can explore with students about the property of 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 20.8 – 20.10 • Worksheet 20.3 (Sets 1 & 2) 	

			<p>independent events and explore the multiplication law of probability.</p> <ul style="list-style-type: none"> Teachers can help students distinguish independent events. 			<ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 20.3 Test Bank 20.3 	
			<p>20.4 Multiplication Law of Probability and Dependent Events (pp.140 – 149)</p> <ul style="list-style-type: none"> Teachers may give some real-life examples of two dependent events. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 20.11 – 20.14 Worksheet 20.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 20.4 Test Bank 20.4 	
			<p>20.5 Further Problems in Probability (pp.150 – 155)</p> <ul style="list-style-type: none"> Teachers may have more discussions on various cases involving probability in real-life situations. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 20.15 – 20.18 Worksheet 20.5 (Sets 1 & 2) Ongoing Assessment Package: Quiz 	

						20.5	
			<p>Enrichment Mathematics – A Paradox in Probability – The Monty Hall Problem (pp.172 – 173)</p> <ul style="list-style-type: none"> Teachers can introduce other game problems involving probability. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Test Bank 20.5 	
25-28	<p>Chapter 21 Measures of Dispersion</p> <ul style="list-style-type: none"> To understand the concept of dispersion To understand the concepts of range and inter-quartile range To construct and interpret box-and-whisker diagrams and use them to compare the distributions of different sets of data To understand the concept of standard deviation To compare the dispersion of different sets of data using appropriate measures 	<p>Let's Review (pp.176 – 177)</p> <ul style="list-style-type: none"> Teachers may ask students to review the techniques for collecting and organizing data, and use statistical graphs to represent frequency distribution and different measures of central tendency. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Worksheet 21.0 (Sets 1 & 2) 		

	<p>Non-foundation</p> <ul style="list-style-type: none"> To understand the applications of the standard deviation in real-life problems <p>Non-foundation</p> <ul style="list-style-type: none"> To explore and make conjecture on the effects of dispersion in different situations 					
		<p>21.1 Range and Inter-quartile Range (pp.178 – 188)</p> <ul style="list-style-type: none"> Teachers can remind students the difference in calculating range and inter-quartile range of grouped and ungrouped data. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 21.1 – 21.5 Worksheet 21.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 21.1 Test Bank 21.1 	
		<p>21.2 Box-and-whisker Diagrams (pp.189 – 198)</p> <ul style="list-style-type: none"> Teachers can illustrate the general configuration of a box-and-whisker diagram. 	<p>3 hours /3 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 21.6 – 21.7 Worksheet 21.2 	

			<ul style="list-style-type: none"> Teachers can teach students how to use box-and-whisker diagrams to compare different sets of data. Teachers can help students develop their information technology skills in drawing the box-and-whisker diagram by using a spreadsheet. 			(Sets 1 & 2) <ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 21.2 Test Bank 21.2 	
			21.3 Standard Deviation (pp.198 – 209) <ul style="list-style-type: none"> Teachers can use two sets of data with the same mean but different dispersions to point out the meaning of standard deviation of the data. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 21.8 – 21.11 Worksheet 21.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 21.3 Test Bank 21.3 	
			<i>Non-foundation</i> 21.4 Applications of Standard Deviation (pp.210 – 218) <ul style="list-style-type: none"> Teachers can tell students to use the formula for standard score to find the standard 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 21.12 – 21.15 Worksheet 21.4 	

			<p>deviation.</p> <ul style="list-style-type: none"> Teachers can ask students what a standard deviation of 0 represents. 			<p>(Sets 1 & 2)</p> <ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 21.4 Test Bank 21.4 	
			<p>Non-foundation</p> <p>21.5 Effects on the Dispersion with a Change in Data (pp.218 – 227)</p> <ul style="list-style-type: none"> Teachers can discuss with students about the change on the dispersion of data after making different changes to data values. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 21.16 – 21.17 Worksheet 21.5 (Sets 1 & 2) Ongoing Assessment Package: Quiz 21.5 Test Bank 21.5 	
			<p>Enrichment Mathematics – Applications of the Coefficient of Variation (pp.246 – 247)</p> <ul style="list-style-type: none"> Teachers can point out that the standard deviation is commonly used to compare different sets of data in daily life. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>		
28-29	Chapter 22						

	<p>Uses and Abuses of Statistics</p> <ul style="list-style-type: none"> To recognize different techniques in survey sampling and the basic principles of questionnaire design To discuss and recognize the uses and abuses of statistical methods in various daily-life activities or investigations To assess statistical investigations presented in different sources such as the news media, research reports, etc 	<p>Let's Review (p.250)</p> <ul style="list-style-type: none"> Teachers can ask students to review sampling techniques and different methods of data collection. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>		
		<p>22.1 Statistical Surveys (pp.250 – 255)</p> <ul style="list-style-type: none"> Teachers can ask students to discuss in groups about the strengths and weaknesses of various methods of surveys. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Worksheet 22.1 (Sets 1 & 2) 	
		<p>22.2 Sampling Methods (pp.256 – 264)</p> <ul style="list-style-type: none"> Teachers can discuss with students about the reasons of using sampling method as a 	<p>3 hours /3 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 22.1 – 22.3 Worksheet 22.2 	

			<p>statistical method.</p> <ul style="list-style-type: none"> Teachers can point out the difference between probability sampling and non-probability sampling. 			<p>(Sets 1 & 2)</p> <ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 22.2 Test Bank 22.2 	
			<p>22.3 Statistical Investigations (pp.265 – 273)</p> <ul style="list-style-type: none"> Through reading various statistical reports, teachers can discuss the credibility of the reports with students. Teachers can also ask the students to assess the statistical investigations in groups. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 22.4 – 22.5 Worksheet 22.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 22.3 Test Bank 22.3 	
			<p>Enrichment Mathematics – Population Census and By-census in Hong Kong (pp.286 – 287)</p> <ul style="list-style-type: none"> Teachers can ask students to find out some data from population census and do a project. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>		
29-32	Chapter 6 (M1)						

		<p>Indefinite Integrals</p> <ul style="list-style-type: none"> • To recognize the concept of indefinite integration • To understand the basic properties of indefinite integrals and basic integration formulas • To use basic integration formulas to find the indefinite integrals of algebraic functions and exponential functions • To use integration by substitution to find indefinite integrals • To use indefinite integration to solve problems 	<p>Let's Review (p.214)</p> <ul style="list-style-type: none"> • Teachers may review the rules of differentiation. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>		
			<p>6.1 Indefinite Integrals (pp.214 – 226)</p> <ul style="list-style-type: none"> • Indefinite integration as the reverse process of differentiation should be introduced. • Students should be able to apply basic formulas and rules to find indefinite integrals, and 	<p>5 hours /5 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 6.1 – 6.5 • Worksheet 6.1 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 6.1 	

			find indefinite integrals from definition.			<ul style="list-style-type: none"> • Test Bank 6.1 	
			6.2 Integration by Substitution (pp.227 – 235) <ul style="list-style-type: none"> • Students should be able to find indefinite integrals by using integration by substitution. 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 6.6 – 6.11 • Worksheet 6.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 6.2 • Test Bank 6.2 	
			6.3 Applications of Indefinite Integrals (pp.235 – 243) <ul style="list-style-type: none"> • Students should be able to solve application problems of indefinite integrals in geometry, science, economics and social science. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 6.12 – 6.15 • Worksheet 6.3 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 6.3 • Test Bank 6.3 	
			Enrichment Mathematics – Integration by Parts (pp.252–253) <ul style="list-style-type: none"> • This enrichment derives and 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		

			demonstrates the technique 'integration by parts' to find indefinite integrals.				
32-36	Chapter 7 (M1) Definite Integrals <ul style="list-style-type: none"> To recognize the concept of definite integration To recognize the Fundamental Theorem of Calculus and understand the properties of definite integrals To find the definite integrals of algebraic functions and exponential functions To use integration by substitution to find definite integrals To understand the trapezoidal rule and use it to estimate the value of definite integrals 	7.1 Definitions and Evaluation of Definite Integrals (pp.256 – 265) <ul style="list-style-type: none"> Students should be able to find definite integrals by using the Fundamental Theorem of Calculus. 	4 hours /4 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 7.1 – 7.4 Worksheet 7.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 7.1 Test Bank 7.1 		
		7.2 Properties of Definite Integrals (pp.265 – 270) <ul style="list-style-type: none"> Students should be able to find definite integrals by using the properties of definite integrals. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 7.5 – 7.8 Worksheet 7.2 (Sets 1 & 2) 		

			<ul style="list-style-type: none"> Teachers may remind students of the following points. <ul style="list-style-type: none"> (a) In general, if $\int_a^b f(x)dx = 0$, we cannot conclude that $a = b$. (b) If $c < a$ and $f(x)$ is continuous in the interval $c \leq x \leq b$ or $c > b$ and $f(x)$ is continuous in the interval $a \leq x \leq c$, then the property $\int_a^b f(x)dx = \int_a^c f(x)dx + \int_c^b f(x)dx$ still holds. (c) If there is an absolute sign in the integrand, it is necessary to divide the integral into several integrals. 			<ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 7.2 Test Bank 7.2 	
			<p>7.3 Integration by Substitution (pp.271 – 276)</p> <ul style="list-style-type: none"> Students should be able to find definite integrals by using integration by substitution. 	<p>2 hours 2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 7.9 – 7.12 Worksheet 7.3 (Sets 1 & 2) Ongoing 	

						Assessment Package: Quiz 7.3	
			7.4 Approximation of Definite Integrals (pp.276 – 283) <ul style="list-style-type: none"> Students should be able to estimate the value of definite integrals by using the trapezoidal rule. 	4 hours /4 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 7.13 – 7.15 Worksheet 7.4 (Sets 1 & 2) Ongoing Assessment Package: Quiz 7.4 Test Bank 7.4 	
			Enrichment Mathematics – Error in the Trapezoidal Rule (p.291) <ul style="list-style-type: none"> This enrichment studies the error that exists when using the trapezoidal rule. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
37	Chapter 8 (M1) Applications of Definite Integrals <ul style="list-style-type: none"> To use definite integration to find the area of plane figures To use definite integration to 	8.1 Areas of Plane Figures (pp.294 – 310) <ul style="list-style-type: none"> Students should be able to find the area of the region bounded by a curve and the x-axis, a 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 8.1 – 8.8 Worksheet 8.1 (Sets 1 & 2) 		

		solve problems	curve and the y-axis, or two curves.			<ul style="list-style-type: none"> • Ongoing Assessment Package: Quiz 8.1 • Test Bank 8.1 	
			8.2 Other Applications of Definite Integrals (pp.311 – 319) <ul style="list-style-type: none"> • Students should be able to solve application problems of definite integrals in social science and science. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 8.9 – 8.12 • Worksheet 8.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 8.2 • Test Bank 8.2 	
			Enrichment Mathematics – Demand and Supply (p.331) <ul style="list-style-type: none"> • This enrichment introduces an important application of definite integrals in economics: demand and supply. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
38		Chapter 9 (M1) Further Probability <ul style="list-style-type: none"> • To understand the concepts of conditional probability and 	Let's Review (p.2) <ul style="list-style-type: none"> • Teachers can ask students to review the set notations, and 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Test Bank 9.0 	

	<p>independent events</p> <ul style="list-style-type: none"> To use the laws $P(A \cap B) = P(A) P(B A)$ and $P(D C) = P(D)$ for independent events C and D to solve problems To use Bayes' theorem to solve simple problems 	<p>some basic concepts and laws of probability.</p>				
		<p>9.1 Conditional Probability and Independence (pp.3 – 21)</p> <ul style="list-style-type: none"> Teachers may use Venn diagrams to illustrate the concepts of conditional probability and total probability law. When representing the total probability law by a tree diagram, three independent probabilities suffice to determine all the unknown probabilities in the tree diagram. Teachers can ask students to verify this by posing their own problems and solving them. 	<p>4 hours /4 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 9.1 – 9.10 Worksheet 9.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 9.1 Test Bank 9.1 	
		<ul style="list-style-type: none"> Students should learn to find 		<p>Demonstrating some examples and giving</p>		

			<p>conditional probability, and to apply multiplication law and total probability law to solve application problems.</p> <p>Students should also learn to solve problems involving independent and dependent events.</p>		some classwork		
			<p>9.2 Bayes' Theorem (pp.21 – 31)</p> <ul style="list-style-type: none"> Using a unit square to represent the sample space, teachers can illustrate the concept of Bayes' theorem with the help of a geometric figure. Each product in the R.H.S. of the equation for Bayes' theorem can be regarded as the area of a rectangle obtained by finding the product of its dimensions. Students should be able to solve problems by using Bayes' theorem for two events or more than two events, and solve problems involving screening tests. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 9.11 – 9.13 Worksheet 9.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 9.2 Test Bank 9.2 	
			Enrichment Mathematics –	0.5 hour /0.5 hour	Demonstrating some examples and giving		

			<p>Bertrand's Paradox (pp.44–45)</p> <ul style="list-style-type: none"> This enrichment introduces Bertrand's paradox. Teachers may first ask students to suggest methods to draw an arbitrary chord before discussing the three methods given by Bertrand himself. 		some classwork		
39	<p>Chapter 10 (M1) Discrete Random Variables</p> <ul style="list-style-type: none"> To recognize the concept of a discrete random variable To recognize the concept of discrete probability distribution and its representation in the form of tables, graphs and mathematical formulae To recognize the concepts of expectation $E(X)$ and variance $\text{Var}(X)$ and use them to solve simple problems To recognize the formulas $E(aX + b) = a E(X) + b$ and $\text{Var}(aX + b) = a^2\text{Var}(X)$ to 	<p>10.1 Random Variables and Probability Distributions (pp.48 – 59)</p> <ul style="list-style-type: none"> Teachers may mention that when tossing two fair coins once, the probability distribution of the number of heads obtained is indeed a binomial distribution which will be discussed in the next chapter. Students should be able to classify random variables as discrete or continuous, work out representations and find probabilities of random variables. Students should also be able to determine probability 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 10.1 – 10.4 Worksheet 10.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 10.1 Test Bank 10.1 		

		solve simple problems	functions and find unknowns in probability distributions.				
			10.2 Expectation (pp.60 – 73) <ul style="list-style-type: none"> Students should be able to evaluate and solve practical problems involving expectations and variances of random variables, and apply the properties of expectation and variance. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 10.5 – 10.9 Worksheet 10.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 10.2 Test Bank 10.2 	
			Enrichment Mathematics – Benford’s Law (p.87) <ul style="list-style-type: none"> This enrichment introduces Benford’s law which helps people describe and predict some phenomenon of human activities. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
40		Chapter 11 (M1) Binomial Distribution <ul style="list-style-type: none"> To recognize the concept and properties of the binomial distribution To calculate probabilities 	11.1 Binomial Distribution (pp.90 – 98) <ul style="list-style-type: none"> Students should be able to represent the probability functions of binomial 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 11.1 – 11.3 Worksheet 11.1 	

	<p>involving the binomial distribution</p> <ul style="list-style-type: none"> To use the binomial distribution to solve problems 	<p>distributions graphically.</p> <ul style="list-style-type: none"> Students should also be able to find the probabilities and solve applications of binomial distributions. 			<p>(Sets 1 & 2)</p> <ul style="list-style-type: none"> Ongoing Assessment Package: Quiz 11.1 Test Bank 11.1 	
		<p>11.2 Mean and Variance of Binomial Distribution (pp.99 – 104)</p> <ul style="list-style-type: none"> Students should be able to find the mean, variance or other unknowns of binomial distributions, and solve practical problems on the mean and variance of binomial distributions. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 11.4 – 11.8 Worksheet 11.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 11.2 Test Bank 11.2 	
		<p>11.3 Applications of Binomial Distribution (pp.105 – 115)</p> <ul style="list-style-type: none"> Students should be able to solve application problems of binomial distributions. 	<p>1.5 hours /1.5 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 11.9 – 11.12 Worksheet 11.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 	

						11.3	
			<p>Enrichment Mathematics – Hypergeometric Distribution (p.127)</p> <ul style="list-style-type: none"> This enrichment introduces the hypergeometric distribution which is a generalized distribution with the Bernoulli distribution as a special case. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Test Bank 11.3 	
41	<p>Chapter 12 (M1)</p> <p>Geometric Distribution</p> <ul style="list-style-type: none"> To recognize the concept and properties of the geometric distribution To calculate probabilities involving the geometric distribution To use the geometric distribution to solve problems 	<p>12.1 Geometric Distribution (pp.130 – 140)</p> <ul style="list-style-type: none"> Students should be able to represent the probability functions of geometric distributions graphically. Students should also be able to find the probabilities and solve application problems of geometric distributions. 	2.5 hours /2.5 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 12.1 – 12.5 Worksheet 12.1 (Sets 1 & 2) Ongoing Assessment Package: Quiz 12.1 Test Bank 12.1 		
		<p>12.2 Mean and Variance of Geometric Distribution (pp.140 – 147)</p> <ul style="list-style-type: none"> Students should be able to find 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 12.6 – 12.9 Worksheet 		

			the mean and variance of geometric distributions, and solve practical problems on expectation and variance of geometric distributions.			12.2 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 12.2 • Test Bank 12.2	
			Enrichment Mathematics – Negative Binomial Distribution (pp.160 – 161) • This enrichment introduces the negative binomial distribution which is a generalized distribution with geometric distribution as a special case.	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		

* The extended parts should be marked with asterisks. These parts should be more challenging and can be covered when the students can master the knowledge and skills covered in the conventional topics.

Core Values of Wah Yan College, Kowloon

I. Love and care	1. Accept & feel positive about himself 2. Appreciation & Gratitude 3. Empathy & Compassion	4. Forgiveness & Reconciliation 5. Service 6. Family as a basic unit of society; marriage is the foundation of a family
II. Strive for excellence	7. Reflective 8. Commitment	10. Curiosity & willingness to learn 11. Value imagination and creativity

	9. Perseverance	
III. Respect and Justice	12. Life is valuable and respectable 13. Openness to good in all things 14. Respect for himself & others	15. Integrity 16. Faithfulness
IV. Responsibility	17. Freedom & Self-discipline 18. Care for the environment	19. Social Identities: citizen identity, national identity and global citizen identity
V. Faith	20. Experience of God 21. Explore & practise one's faith	22. Appreciate religious liturgies