

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

Textbook	1. New Progress in Senior Mathematics 5 (Compulsory Part) (with Public Exam Essentials and Student's Revision CD) 2. New Progress in Senior Mathematics 6A (Compulsory Part) (with Public Exam Essentials and Student's Revision CD, 2 nd)
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)	1-6	<p>Chapter 14 Trigonometry (1)</p> <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 $-\theta$, $90^\circ \pm \theta$, $180^\circ \pm \theta$, etc <p>Non-foundation</p> <ul style="list-style-type: none"> To solve other trigonometric 	<p>Let's Review (p.160)</p> <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 	

		equations (solutions in the interval from 0° to 360°)					
			<p>14.1 Introduction to Trigonometry (pp.161 – 164)</p> <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 	
			<p>14.2 Trigonometric Ratios of Arbitrary Angles (pp.164 – 170)</p> <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 	
			<p>14.3 Finding Trigonometric Ratios Without Using a Calculator (pp.171 –</p>	1 hour /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 14.1 – 14.2 	

			<p>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. 			<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 software. 	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>Non-foundation</p> <ul style="list-style-type: none"> Teachers can discuss the transformation on the graphs of trigonometric functions with students. 				
			<p>14.7 Graphical Solutions of 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 /1 hour	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 14.11 – 14.12 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		
6-10		<p>Non-foundation</p> <p>Chapter 15</p>					

	<p>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 cosine formulas to solve oblique triangles To understand and apply Heron's formula 	<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. 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Worksheet 15.0 (Sets 1 & 2) Test Bank 15.0 	
		<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 $\frac{1}{2}ab\sin C$. 	<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 	<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 	

			<p>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.</p> <ul style="list-style-type: none"> Teachers may ask students to construct various types of triangles by using a geometric software and conclude the number of triangles can be formed. 			<p>Assessment Package: Quiz 15.2</p> <ul style="list-style-type: none"> Test Bank 15.2 	
			<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. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<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 	

			<ul style="list-style-type: none"> Teachers may point out that if three sides of a triangle are given, we can apply the cosine formula to find the unknown angles. 				
			<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 area of the triangle. 	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) 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		
11-13	<i>Non-foundation</i> Chapter 16						

		<p>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 a plane in three-dimensional geometry • To apply trigonometric formulas in solving three-dimensional 	<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. 	<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 16.1 – 16.3 • Worksheet 16.1 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 16.1 • Test Bank 16.1 	
			<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 	<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>students that finding an angle between a straight line and a plane can be treated as finding an angle between two straight lines.</p> <ul style="list-style-type: none"> Teachers may let students make some three-dimensional models, then find a specified angle of the model. 				
			<p>16.3 Applications in Three-dimensional Problems (pp.295 – 301)</p> <ul style="list-style-type: none"> Teachers can point out that we can solve a three-dimensional problem by find a suitable triangle in the figure. 	<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 16.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 16.3 Test Bank 16.3 	
			<p>Enrichment Mathematics – More Applications of Trigonometry (pp.318 – 319)</p> <ul style="list-style-type: none"> Teachers can introduce that there are a lot of 	<p>0.5 hour /0.5 hour</p>	<p>Demonstrating some examples and giving some classwork</p>		

			applications of trigonometry such as surveying, navigation, astronomy, geography, etc.				
	14	Revisions			Demonstrating some examples and giving some classwork		
Second Term (2/1/2017-17/7/2017, Weeks 19 to 47)	19-22	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 sequences <i>Non-foundation</i> <ul style="list-style-type: none"> To understand the general terms of arithmetic and geometric sequences <i>Non-foundation</i> <ul style="list-style-type: none"> To find the sum of a finite number of terms of an arithmetic sequence and a geometric sequence <i>Non-foundation</i>	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 polygonal numbers, arithmetic and geometric sequences, Fibonacci sequence, etc. Teachers can generalize the general terms of some sequences with simple derivation. Teachers can point out that some sequences do not have definite patterns, 	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) Ongoing Assessment Package: Quiz 18.1 Test Bank 18.1 	

	<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 	and give some corresponding examples.				
		<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. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 18.4 – 18.8 Worksheet 18.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 18.2 Test Bank 18.2 	
		<p>Non-foundation</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 	

						<ul style="list-style-type: none"> • 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. 	<p>4 hours /4 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> • Additional Examples 18.14 – 18.17 • Worksheet 18.4 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 18.4 • Test Bank 18.4 	
			<p><i>Non-foundation</i></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. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
24-28	Non-foundation	<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 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 	<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 the possible ways. 	4 hours /4 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> <i>Additional Examples 19.1 – 19.5</i> <i>Worksheet 19.1 (Sets 1 & 2)</i> <i>Ongoing Assessment Package: Quiz 19.1</i> <i>Test Bank 19.1</i> 	
			<p>19.2 Permutation (pp.75 – 86)</p>	3.5 hours /3.5 hours	Demonstrating some examples and giving some	<ul style="list-style-type: none"> Additional Examples 19.6 – 	

			<ul style="list-style-type: none"> Teachers can introduce the definition of factorial. Teachers can introduce the concept of permutation. 		classwork	19.9 <ul style="list-style-type: none"> 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) 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		

28-32	<p>Non-foundation</p> <p>Chapter 20 More about Probability</p> <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 probability and the concept of independent events To recognize the concept and notation of conditional probability To use permutation and combination to solve problems relating to probability 	<p>20.1 Basic Concepts of probability (pp.110 – 117)</p> <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 difference between theoretical probability and experimental probability. 	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>20.2 Addition Law of probability (pp.118 – 130)</p> <ul style="list-style-type: none"> Teachers can use a Venn 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 20.3 – 20.7 Worksheet 20.2 	

			<p>diagram to illustrate this formula.</p> <ul style="list-style-type: none"> Teachers can demonstrate the concepts of probability by tossing coins, throwing dice and drawing cards. 			<p>(Sets 1 & 2)</p> <ul style="list-style-type: none"> 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 independent events and explore the multiplication law of probability. Teachers can help students distinguish independent events. 	<p>2 hours /2 hours</p>	<p>Demonstrating some examples and giving some classwork</p>	<ul style="list-style-type: none"> Additional Examples 20.8 – 20.10 Worksheet 20.3 (Sets 1 & 2) 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 	<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 	

			dependent events.			Assessment Package: Quiz 20.4 • Test Bank 20.4	
			20.5 Further Problems in Probability (pp.150 – 155) <ul style="list-style-type: none"> Teachers may have more discussions on various cases involving probability in real-life situations. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 20.15 – 20.18 Worksheet 20.5 (Sets 1 & 2) Ongoing Assessment Package: Quiz 20.5 Test Bank 20.5 	
			Enrichment Mathematics – A Paradox in Probability – The Monty Hall Problem (pp.172 – 173) <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		
35-38	Chapter 21 Measures of Dispersion <ul style="list-style-type: none"> To understand the concept of dispersion To understand the concepts of 	Let's Review (pp.176 – 177) <ul style="list-style-type: none"> Teachers may ask students to review the techniques for collecting 	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>range and inter-quartile range</p> <ul style="list-style-type: none"> 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>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>and organizing data, and use statistical graphs to represent frequency distribution and different measures of central tendency.</p>				
		<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 	<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 	

			inter-quartile range of grouped and ungrouped data.			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. 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. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 21.6 – 21.7 Worksheet 21.2 (Sets 1 & 2) Ongoing Assessment Package: Quiz 21.2 Test Bank 21.2 	
			<p>21.3 Standard Deviation (pp.198 – 209)</p> <ul style="list-style-type: none"> Teachers can use two sets of data with the same mean but different 	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) 	

			dispersions to point out the meaning of standard deviation of the data.			<ul style="list-style-type: none"> • Ongoing Assessment Package: Quiz 21.3 • Test Bank 21.3 	
			<p>Non-foundation</p> <p>21.4 Applications of Standard Deviation (pp.210 – 218)</p> <ul style="list-style-type: none"> • Teachers can tell students to use the formula for standard score to find the standard deviation. • Teachers can ask students what a standard deviation of 0 represents. 	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 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 21.4 • Test Bank 21.4 	
			<p>21.5 Effects on the Dispersion with a Change in Data</p> <p>Non-foundation - 227)</p> <ul style="list-style-type: none"> • Teachers can discuss with students about the change on the dispersion of data after making 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> • Additional Examples 21.16 – 21.17 • Worksheet 21.5 (Sets 1 & 2) • Ongoing Assessment Package: Quiz 	

			different changes to data values.			21.5 • Test Bank 21.5	
			Enrichment Mathematics – Applications of the Coefficient of Variation (pp.246 – 247) <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. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
39-40	Chapter 22 Uses and Abuses of Statistics <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 	Let's Review (p.250) <ul style="list-style-type: none"> Teachers can ask students to review sampling techniques and different methods of data collection. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork			

			<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. 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<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 statistical method. Teachers can point out the difference between probability sampling and non-probability sampling. 	3 hours /3 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 22.1 – 22.3 Worksheet 22.2 (Sets 1 & 2) 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 	2 hours /2 hours	Demonstrating some examples and giving some classwork	<ul style="list-style-type: none"> Additional Examples 22.4 – 22.5 Worksheet 22.3 (Sets 1 & 2) Ongoing Assessment Package: Quiz 22.3 	

			students to assess the statistical investigations in groups.			• Test Bank 22.3	
			Enrichment Mathematics – Population Census and By-census in Hong Kong (pp.286 – 287) <ul style="list-style-type: none"> Teachers can ask students to find out some data from population census and do a project. 	0.5 hour /0.5 hour	Demonstrating some examples and giving some classwork		
40-41	Revisions				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 9. Perseverance	10. Curiosity & willingness to learn 11. Value imagination and creativity

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