YISHUN SECONDARY SCHOOL
ADDITIONAL MATHEMATICS
SECONDARY 4 EXPRESS 2020

Mathematics Curriculum		Key Programmes
In line with the requirements of the A Mathematics Syllabus, the teaching of A Math at YSS focuses on developing thinking, reasoning and problem-solving skills using Math Modelling, investigation, making conjectures, proofs and making connections among mathematical concepts.		
Term 1	**Chapter**	**Assessment**
Week 0	11.1 Trigonometric Ratios of Acute angles	
Week 1	Understand basic angles and find angles in a given quadrant from its basic angle	
Week 2	11.2 Trigonometric ratios of any angle, Solve basic trigonometric equations	
Week 3	11.3 Graphs of Trigonometric functions	
Week 4 (CNY-Mon, Tue)	12.1 Simple Identities	**Quiz 1** Chap 11- Trigonometry Chap 9: Coordinate Geom of Circles Chap 5: Binomial theorem
Week 5	12.2 Further Trigonometric Equations	
Week 6	13.1 The Addition Formulae 13.2 The Double Angle Formulae	
Week 7	13.3 The R-Formulae	**Quiz 2** Chap 12, 13 - Trigonometry
Week 8	9.1 Graphs of Parabolas of the form $y^2 = kx$	use a graphing software to investigate the graph of $y^2 = kx$ when k varies
Week 9	14.1 The Derivative and its Basic Rules 14.2 The Chain Rule	**WA1:** Chap 11, 12, 13 - Trigonometry Chap 4 Modulus and Power functions
Week 10	14.3 The Product Rule 14.4 The Quotient Rule	
March Holiday Assignment		
Term 2	**Chapter**	**Assessment**
Week 1	15.1 Equations of Tangents and Normal 15.2 Increasing and Decreasing Functions	
Week 2	15.3 Rates of Change 15.4 Connected Rates of Change	
Week 3 (Good Fri-Fri)	16.1 Nature of Stationary Points	
Week 4	16.2 Maxima and Minima Problems	**Quiz 3** Chap 14,15,16 - Differentiation

Week 5	17.1 Derivatives of Trigonometric Functions 17.2 Derivatives of Exponential Functions	
Week 6 (Labour Day-Fri)	17.3 Derivatives of Logarithmic Functions **&** **Revision for Mid-Year Examination**	**WA2** Topics 17.1 and 17.2 - Differentiation of Trigonometric and Exponential functions Chap 7 Logarithm Chap 2 Surds / Indices
Week 7 – 9 (Vesak Day-Thurs)	**Mid-Year Examination and Script Checking**	
Week 9	18.1 Indefinite Integrals 18.2 Definite Integrals	
Week 10	**Intensive Mother Tongue**	
June Assignment (Chp 18.1, 18.2)		
Term 3	**Chapter**	**Assessment**
Week 1	18.3 Integration of Trigonometric Functions 18.4 Integration of Exponential Functions	
Week 2 (Youth Day, Mon)	19.1 Area between a Curve and an Axis 19.2 Area between a Curve and a Line	
Week 3	20.1 Displacement, Velocity and Acceleration	
Week 4	10.1 Triangle Theorems 10.2 Quadrilateral Theorems	**Quiz 4** Chp 17, 18 - Differentiation and Integration of Trig, Exp and Log Functions
Week 5 (Hari Raya Haji-Fri)	10.3 Circle Theorems	
Week 6	Revision	Mock P1 / /P2
Week 7 (National Day -Mon)	**Preliminary Examination**	**WA3** Chap 19 - Applications of Integration: Area of a region Chap 20: Kinematics Chap 10: Plane Geometry
Week 8	Revision	
Week 9	**Preliminary Examination**	
Week 10 (Teachers' Day Celebration-Thurs, Teachers' Day-Fri)	**Preliminary Examination**	
September Holiday		
Term 4	**Chapter**	**Assessment**
Week 1	**Preliminary Examination**	
Week 2	**Script Checking**	
Week 3 -5	**Focused Revision**	

Week 6 -10	**GCE O Level Written Examination**