

YISHUN SECONDARY SCHOOL
ADDITIONAL MATHEMATICS
SECONDARY 3 G3 2024

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, making conjectures, investigations and making connections among mathematical concepts.		
Term 1	Chapter	Assessment
Week 1 (1 st Jan Mon - New Year's Day)	Back to School Programme Teacher's expectations	
Week 2	Chapter 3: Surds 3.1 Surds 3.2 Simplifying expressions involving surds	Use of SLS
Week 3	3.3 Solving equations involving surds	
Week 4	Chapter 1: Quadratic Functions 1.1 Quadratic functions of the form $y = a(x - p)(x - q)$ 1.2 Quadratic functions of the form $y = a(x - h)^2 + k$	
Week 5	1.3 Conditions for quadratic curve to lie completely above or below x-axis 1.4 Quadratic functions in real-world contexts	
Week 6	Chapter 2 Equations & Inequalities 2.1 Solving quadratic equations by completing the square (coefficient of x^2 is not 1) 2.2 Solving quadratic equations using the Quadratic formula	
Week 7 12 th - 13 th Feb Mon, Tue - CNY	2.3 Solving linear and non-linear simultaneous equations	
Week 8	2.4 Solving quadratic inequalities Chapter 4: Polynomials, Cubic Equations & Partial Fractions 4.1 Polynomials	
Week 9	4.2 Remainder and Factor Theorem	
Week 10	4.3 Cubic expressions, equations and identities.	WA1 curriculum time Chap 1, 2, 3
March Holiday Assignment (Binomial Theorem Units 5.1, 5.2 on SLS)		

Term 2	Chapter	Assessment
Week 1	4.4 Partial Fractions	
Week 2 (29 th Mar Fri - Good Fri)	Chapter 5: Binomial Theorem and Its Applications 5.1 The Binomial Expansion of $(1 + b)^n$ 5.2 The Binomial Expansion of $(a + b)^n$	Consolidation of SLS assignments on units 5.1, 5.2
Week 3	5.3 Applications of Binomial Theorem in real-world contexts	
Week 4 (10 th Apr Wed - Hari Raya Puasa)	Chapter 6: Exponential and Logarithmic Functions 6.1 Exponential expressions and equations	
Week 5	Student Learning Fest	
Week 6	6.2 Introduction to Logarithms	
Week 7 (1 st May Wed - Labour Day)	6.3 Laws of Logarithms and change of base formula	
Week 8	6.4 Logarithmic and Exponential equations	SLS WA2: Chap 4, 5, 6.1
Week 9	6.5 Exponential and Logarithmic Functions and graphs	SLS
Week 10 (22 nd May Wed - Vesak day)	6.6 Applications of Exponential and Logarithmic Functions	
June Holiday Assignment (SLS Flipped Classroom: Coordinate Geometry Chapter 7)		

Term 3	Chapter	Assessment
Week 1	Chapter 7: Coordinate Geometry 7.1 Mid-point of a Line Segment 7.2 Parallel and perpendicular lines 7.3 Equation of straight line	SLS Flipped Classroom
Week 2 (1 st July Mon - Youth Day)	7.4 Areas of rectilinear figures	SLS Flipped Classroom
Week 3	7.5 Equations of Circles	SLS Flipped Classroom
Week 4	7.5 Equations of Circles	SLS Flipped Classroom

Week 5 (HBL due to Oral Exams)	Chapter 9: Trigonometric Functions & Graphs 9.1 Trigonometric Ratios of acute angles and special angles	
Week 6	9.2 Trigonometric Ratios of general angles	
Week 7 (9 th Aug Fri - National Day)	9.3 Trigonometric functions and graphs	
Week 8	Chapter 10: Trigonometric Equations & Identities 10.1 Trigonometric Equations A: Trig equations for acute or obtuse angle (recap) B: Trigonometric equations for general angle C: Solve trigonometric equations using basic angle and ASTC	
Week 9	10.1 (continued) D: solve equations involving 0° , 90° , 180° , 270° , 360° E: solving more complicated trig equations	WA3: Curriculum Time Chap 6, 7, 9.1, 9.2
Week 10 (29 th Aug Thu - Teachers' Day Celebration; 30 th Aug Fri - Teachers' Day)	F: Principal values of $\sin^{-1}x$, $\cos^{-1}x$, $\tan^{-1}x$ Revision for End-of-YearE Exam	
September Holiday Assignment (Past Year paper YSS EOY 2023)		

Term 4	Chapter	Assessment
Week 1	Revision for End-of-Year Exam	
Week 2	Revision for End-of-Year Exam	YSS EOY 2022
Week 3 - 5	End-of-Year Examination	
Week 6	Script Checking and Review of Exam Papers	
Week 7	Post-Exam Programmes	