

Diploma Program Outline (2025-2027)

Math AA SL

Week	Week of...	Topic / Unit / Text	Content / Skill Development	Graded Assessments	
Year 1 Semester 1					
1	August 18	1 Sequences and series	<ul style="list-style-type: none"> Number patterns and sigma notation 		
2	August 25	1 Sequences and series	<ul style="list-style-type: none"> Arithmetic and geometric sequences 		
3	September 2	1 Sequences and series	<ul style="list-style-type: none"> Arithmetic and geometric series 		
4	September 8	1 Sequences and series	<ul style="list-style-type: none"> Applications of arithmetic and geometric patterns 		
5	September 15	1 Sequences and series	<ul style="list-style-type: none"> The binomial theorem Unit Review 		
6	September 22	1 Sequences and series	<ul style="list-style-type: none"> Summative Assessment Summative Assessment Review 	Summative Assessment Unit 1 <ul style="list-style-type: none"> Paper 1 Paper 2 	
7	September 29	National Holiday			
8	October 6	2 Introducing Functions	<ul style="list-style-type: none"> Function and Function Notation Draw/sketch graphs of functions 		
9	October 13	2 Introducing Functions	<ul style="list-style-type: none"> Domain and range of a function 		
10	October 20	2 Introducing Functions	<ul style="list-style-type: none"> Composite functions Inverse functions 		
11	October 27	3 Linear and Quadratic Functions	<ul style="list-style-type: none"> Rate of Change/Slope/Gradient of linear functions Equation of a straight line 		
12	November 3	3 Linear and Quadratic Functions	<ul style="list-style-type: none"> Linear Models Solve quadratic equations The quadratic formula and the discriminant Graphing quadratic functions 		
13	November 10	3 Linear and Quadratic Functions	<ul style="list-style-type: none"> Equation of a parabola Application of quadratics Function Transformation 		
14	November 17	3 Linear and Quadratic Functions	<ul style="list-style-type: none"> Unit Review Summative Assessment Summative Assessment Review 	Summative Assessment Unit 2 3 <ul style="list-style-type: none"> Paper 1 Paper 2 	
15	November 24	Week Without Wall			
16	December 1	4 Rational Functions	<ul style="list-style-type: none"> The reciprocal Function Modelling with the reciprocal functions Transforming the reciprocal function 		
17	December 8	4 Rational Functions	<ul style="list-style-type: none"> Rational functions Sketching rational functions from the equation 		
18	December 15	4 Rational Functions	<ul style="list-style-type: none"> Solve rational equations The inverse of a rational function 		
19	December 22	Christmas & New Year			
20	December 30	Christmas & New Year			
21	January 5	5 Exponentials and Logarithms	<ul style="list-style-type: none"> Exponent rules Fractional exponents Exponential equations 		
22	January 12	5 Exponentials and Logarithms	<ul style="list-style-type: none"> Exponential Functions Exponential Function Transformation 		
23	January 19	5 Exponentials and Logarithms	<ul style="list-style-type: none"> Logarithms Logarithm Laws Change of Base 		
Year 1 Semester 2					
1	January 26	5 Exponentials and Logarithms	<ul style="list-style-type: none"> Logarithmic Functions 		
2	February 2	5 Exponentials and Logarithms	<ul style="list-style-type: none"> Logarithmic Equations 		
3	February 9	6 Geometry and Trigonometry	<ul style="list-style-type: none"> Unit Review Summative Assessment Summative Assessment Review 	Summative Assessment Unit 4 5 <ul style="list-style-type: none"> Paper 1 Paper 2 	
4	February 16	Chinese New Year			
5	February 23	Chinese New Year			

Week	Week of...	Topic / Unit / Text	Content / Skill Development	Graded Assessments
6	March 2	6 Geometry and Trigonometry	<ul style="list-style-type: none"> Midpoint and Distance Formula (2D and 3D) Volume and Surface Area of 3D shapes 	
7	March 9	6 Geometry and Trigonometry	<ul style="list-style-type: none"> Right-angled triangle trigonometry Angle between a line and a plane/edge or a face and the base Angle of elevation/depression Bearings 	
8	March 16	6 Geometry and Trigonometry	<ul style="list-style-type: none"> Area of a triangle Sine Rule Cosine Rule Application 	
9	March 23	7 Trigonometric Functions	<ul style="list-style-type: none"> Radian Measure Sectors and segments Unit Circle 	
10	March 30	7 Trigonometric Functions	<ul style="list-style-type: none"> Trigonometric Equations Trigonometric Identities 	
11	April 6	Easter Holiday		
12	April 13	7 Trigonometric Functions	<ul style="list-style-type: none"> Trigonometric Functions Trigonometric Function Transformation 	
13	April 20	7 Trigonometric Functions	<ul style="list-style-type: none"> Modelling Periodic Functions 	
14	April 27	7 Trigonometric Functions	<ul style="list-style-type: none"> Unit Review Summative Assessment Summative Assessment Review 	Summative Assessment Unit 6 7 <ul style="list-style-type: none"> Paper 1 Paper 2
15	May 4	8 Differentiation	<ul style="list-style-type: none"> Limit of a function/at infinity The derivative Function 	
16	May 11	8 Differentiation	<ul style="list-style-type: none"> Power Rule Constant Rule Addition/Subtraction Rule 	
17	May 18	8 Differentiation	<ul style="list-style-type: none"> Tangents and Normals Chain Rule 	
18	May 25	Final Exam Week		
19	June 1	8 Differentiation	<ul style="list-style-type: none"> Product Rule Quotient Rule 	
20	June 8	8 Differentiation	<ul style="list-style-type: none"> Derivative of exponential/logarithmic functions Derivative of trigonometric functions 	
21	June 15	Collaborative Science Project		
Year 2 Semester 1				
1	August	8 Differentiation	<ul style="list-style-type: none"> Increasing/Decreasing Interval Global/local Max and Min, first derivative test 	
2	August	8 Differentiation	<ul style="list-style-type: none"> Second Derivative Global/local Max and Min, second derivative test Inflection Points 	
3	September	8 Differentiation	<ul style="list-style-type: none"> Sketching Graph using first and second derivative test 	
4	September	8 Differentiation	<ul style="list-style-type: none"> Kinematics 	
5	September	8 Differentiation	<ul style="list-style-type: none"> Optimisation Other applications 	
6	September	8 Differentiation	<ul style="list-style-type: none"> Unit Review Summative Assessment Summative Assessment Review 	Summative Assessment Unit 8 <ul style="list-style-type: none"> Paper 1 Paper 2
7	October	National Holiday		
8	October	9 Integration	<ul style="list-style-type: none"> Antiderivative Integration Rules 	
9	October	9 Integration	<ul style="list-style-type: none"> Integral of e to the power of x and 1 over x Integral of f(ax+b) Integral of sine x and cos x Substitution Method 	
10	October	9 Integration	<ul style="list-style-type: none"> Boundray Condition Definite Integral 	
11	October	9 Integration	<ul style="list-style-type: none"> Fundamental Theorem of Calculus Properties of Definite Integrals 	
12	November	9 Integration	<ul style="list-style-type: none"> Area Between Curves Kinematics Accumulating Change 	
13	November	9 Integration	<ul style="list-style-type: none"> Unit Review Summative Assessment 	Summative Assessment Unit 9 <ul style="list-style-type: none"> Paper 1

Week	Week of...	Topic / Unit / Text	Content / Skill Development	Graded Assessments
			<ul style="list-style-type: none"> Summative Assessment Review 	<ul style="list-style-type: none"> Paper 2
14	November	10 Statistics for univariate data	<ul style="list-style-type: none"> Types of Data Sampling Techniques Frequency Table Mean, Median, Mode, Range, Quartiles, IQR Box-and-Whisker Plot 	
15	November	10 Statistics for univariate data	<ul style="list-style-type: none"> Outliers Cumulative Frequency Table and Graph Variance and Standard Deviation 	
16	December	11 Statistics for bivariate data	<ul style="list-style-type: none"> Scatter Diagram Correlation Line of Best Fit 	
17	December	11 Statistics for bivariate data	<ul style="list-style-type: none"> Least Square Method Interpolation and Extrapolation 	
18	December	12 Probability	<ul style="list-style-type: none"> Expectation Sample Space Addition Rule, Product Rule Probability Tree Diagram 	
19	December	Christmas & New Year		
20	January	Christmas & New Year		
21	January	12 Probability	<ul style="list-style-type: none"> Independent and Dependent Events Conditional Probability Probability Rules 	
1	January	13 Probability distributions	<ul style="list-style-type: none"> Random Variable Expectation Binomial Distribution 	
2	January	13 Probability distributions	<ul style="list-style-type: none"> Normal and Standard Normal Distribution Z-value 	
3	January	Chinese New Year		
4	February	Chinese New Year		
5	February	DP Mock Examination Review		
6	February	DP Mock Examination		
7	February	Review	<ul style="list-style-type: none"> Review 	
8	March	Review	<ul style="list-style-type: none"> Review 	
9	March	Review	<ul style="list-style-type: none"> Review 	
10	March	Review	<ul style="list-style-type: none"> Review 	
11	March	Review	<ul style="list-style-type: none"> Review 	
12	March	Review	<ul style="list-style-type: none"> Review 	
13	March	Review	<ul style="list-style-type: none"> Review 	
14	April	Easter Holiday		
15	April	Review	<ul style="list-style-type: none"> Review 	
16	April - May	IB DP May Examination		