Vision summary/ Curriculum intent:								
Week	Unit	Year 12 Pure Maths	Assessment	Assessment Objectives/ skills	Unit	Year 13 Pure Maths	Assessment	Assessment Objectives/ skills
1	4.1	Binomial Expansion		Expanding with positive integer powers only (old Core 2 style). Inc. using to approximate values	7.1, 7.2, 7.3, 7.4	Differentiation (2)		Cover the chain, product and quotient rules and implicit differentiation. Differentiate trigonometric functions. Inc. rates of change and modelling (growth/kinematics)
2	3.1	Coordinate Geometry (linear graphs)		GCSE review. Finding midpoints, lengths of lines, equations of parallel and perpendicular lines. Problem solving geometrically		Differentiation (2)		
3		Coordinate Geometry (linear graphs)				Differentiation (2)		
4	2.2, 2.4, 2.5	Simultaneous Equations, inequalities and surds		GCSE review. Both linear and quadratic simultaneous equations and inequalities. Inc. representing inequalities graphically. Use set notation. Rationalising surds and using surds to solve problems	3.3, 3.4, 7.5	Parametric Equations		Plotting curves, parametric differentiation and converting to Cartesian form. Inc. modelling
5		Simultaneous Equations, inequalities and surds				Revision, exam, review		
6	2.3	Quadratics		Sketching, completing the square to find turning points and using the discriminant	2.10, 4.1	Partial Fractions and binomial expansion		Expanding with negative and fractional powers (old Core 4 style). Inc. using to approximate values and finding the range of validity
7	2.9	Graph transformations		Inc. combinations of transformations where the order matters		Partial Fractions and binomial expansion		
October								
8		Revision, exam, review			8.1, 8.2, 8.3	Integration (2)		Integration by inspection and trigonometric functions
9	3.2	Circle geometry		Equation of a circle (inc. use of completing the square and equations of circumcircles). Finding equations of tangents and normals. Use of the discriminant. Problem solving geometrically	8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7	Integration (2)		Integration by substitution and by parts. Inc. standard integrals and parametric integration. Integrate functions that need to be split into partial fractions first
10		Circle geometry				Integration (2)		
11	2.6	Polynomial division and factor theorem		Inc. sketching cubics		Integration (2)		
12	2.7, 2.11	Quartic, reciprocal and proportionality graphs		Inc. finding equations of asymptotes. Be able to create equations between proportional variables		Review Point 3		
13	2.1	Indices		GCSE review. Inc. problem solving questions and using indices to create quadratic equations		Revision, exam, review		
14	6.1, 6.3, 6.4, 6.5, 6.6	Exponentials and logarithms		Sketching exponential and logarithmic graphs (with graph transformations). Logarithm laws (old Core 2 style). Solve exponential and logarithmic equations. Reducing to linear form		Revision, exam, review		
Christmas								
15		Exponentials and logarithms			9.1, 9.2	Numerical Methods		Change of sign method (inc. understanding of how this can fail). Cobweb/staircase diagrams
16	1.1	Proof		Proof by deduction, proof by exhaustion, proof by contradiction and disproof by counter example	9.3, 9.4, 9.5	Numerical Methods		Newton-Raphson method and review trapezium rule from year 12
17		Proof			2.11, 6.7, 7.6, 8.8	Differential Equations		First order differential equations only. Separation of variables method, inc. sketching members of the family of solution curve. Solve differential equations in context and focus on modelling
18		Revision, exam, review				Differential Equations		
19	6.2, 7.1, 7.2, 7.3	Differentiation (1)		Differentiation from first principles. Finding tangents and normals to curves, stationary points and points of inflection, increasing/decreasing functions, using the second derivative and optimisation/modelling. Inc. sketching gradient functions	10.1, 10.2, 10.3, 10.4, 10.5	Vectors in 3D		Use of i, j, k notation. Calculate the magnitude of a vector. Use position vectors and solve problems
20		Differentiation (1)				Review of previous Topics		
February								
21		Review Point 1				Review of previous Topics		
22	5.1, 5.2, 5.3, 5.5, 5.7, 5.8	Trigonometry (1)		Revise sine rule, cosine rule and area of a triangle. Use the identities from GCSE Further Maths, radian measure, arc length and areas of sectors, small angles and solving trigonometric equations		Revision, exam, review		
23		Trigonometry (1)				Revision, exam, review		
24		Trigonometry (1)				Revision and Exam Papers until end		
25	8.1, 8.2, 8.3, 8.4	Integration (1)		Old Core 1 & 2 style integration. Finding the area under a curve and between curves. Integrate exponentials and logarithms. Inc. trapezium rule and integration as the limit of a sum				
26		Revision, exam, review						
Easter								
27		Integration (1)						

28		Integration (1)						
29	**4.2, 4.3, 4.4, 4.5, 4.6**	Sequences and Series		Old Core 2 style questions. Inc. proofs of sum formula for arithmetic and geometric sequences as well as modelling problems				
30		Sequences and Series						
31	**2.8**	Functions and modulus graphs		Range and domain of functions, composite and inverse functions. Sketch modulus graphs and solve equations and inequalities involving modulus functions. Inc. modelling problems				
32		Functions and modulus graphs						
Whitsun								
33	**2.11, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9**	Trigonometry (2)		Secant, cosecant and cotangent graphs and identities. Cover inverse trigonometric graphs. Rewrite using double/compound angles and harmonic form. Solve trigonometric equations. Inc. modelling with trigonometry				
34		Trigonometry (2)						
35		Trigonometry (2)						
36		Trigonometry (2)						
37		**Revision, exam, review**						
38		**Enrichment/ Work Experience**						
39		Review point 2						