

Year 1 (AS) Further Maths Scheme of Work

Overview – Pure / Decision & Mechanics

Half term	Weeks	Teacher 1 – Core Pure	Teacher 2 – Decision and Further Mechanics
1	5 + exam week	Complex Numbers (21 hours) <ul style="list-style-type: none"> Calculating & conjugation Roots of quadratics Full solutions of quadratic and cubic equations 	Algorithms Algorithms on graphs including <i>the Planarity Algorithm and Route Inspection with more than 4 odd nodes</i>
2	7	Matrices (13 hours) <i>*Brought forward in order for the work on algebra to be complete in Y12 Maths</i> <ul style="list-style-type: none"> Multiplication and determinants Inverses (2x2, 3x3) Solving systems of equations Linear Transformations (13 hours) <ul style="list-style-type: none"> Reflect, rotate, enlarge, stretch in 2 dimensions & 3 dimensions Successive transformations Inversing linear transformations 	Critical path analysis including resource histograms & schedule diagrams
3	4 + exam week + 1	Series (4 hours) <ul style="list-style-type: none"> Sums of integers, squares & cubes Roots of polynomials (7 hours) <ul style="list-style-type: none"> Of quadratic, cubic and quartics Related roots Transformations of roots 	Linear programming
			Momentum & Impulse including momentum as a vector
4	6	Proof by Induction (6 hours) Vectors (21 hours)	Work, energy and power
5	6	Volumes of revolution (5 hours) <i>*Uses integration so is delayed in the curriculum until integration has been taught in Y12 Maths.</i>	Elastic collisions in 1D
		Paper 1 Core Pure 1 11 th May 2020	
		Paper 2 Further Mechanics 1 and Decision 1 14 th May 2020	
6	3	Revision for Progression exam	
	1	Progression Exam Core Pure, Mechanics/Decision 22-26 June 2020	
	2	Beginning content from Year 2	