Further Mathematics

Subject Title	Further Mathematics
Exam board	Edexcel
Specification code	8FM0 (AS) 9FM0 (A level)
Exam details	AS: 2 papers, each 1 hr, 40 mins Paper 1 – Core Pure Mathematics Paper 2 – Further Mechanics 1 and Decision Mathematics 1 A2: 4 papers, each 1 hr, 30 mins Paper 1 – Core Pure Mathematics 1 Paper 2 – Core Pure Mathematics 2 Paper 3 – Further Mechanics 1 Paper 4 – Decision Mathematics 1
Setting arrangements	n/a
Time allowed	Year 12: 11 x 50 minute lessons Year 13: 12 x 50 minute lessons
Link to the Toolkit:	A Level Maths toolkit
Textbooks and revision guides	Pearson: AS and A Level Mathematics Core Pure Book 1/AS (ISBN: 9781292183336) Core Pure Book 2/A2 (ISBN: 9781292183343) Further Mechanics 1 (ISBN: 9781292183312) Decision Mathematics 1 (ISBN: 9781292183299)
Homework information	One substantial piece set weekly per teacher.

Term	Y12 Topics	Skills	Assessment
1	Core Pure 1 Decision 1	1) Complex Numbers 2) Argand diagrams 3) Matrices 1) Linear programming (1) 2) Graphs and networks 3) Critical path analysis	Review sheets for each chapter. Progress assessment.
2	Core Pure 1 Decision 1	4) Roots of polynomials 5) Linear transformations 4) Algorithms 5) Algorithms and graphs	Review sheets for each chapter. Progress assessment.
3	Core Pure 1 Decision 1 Further Mechanics 1	6) Proof by induction 7) Vectors 6) Route inspection 1) Momentum and impulse	Mock exam. Review sheets for each chapter.
4	Core Pure 1 Further Mechanics 1	8) Series 9) Volumes of revolution 2) Work, energy and power	Review sheets for each chapter.
5	Further Mechanics 1	3) Elastic collisions	Internal/External Exams
6	Consolidation and revision preparation for external A Level exams Core Pure 2	 1) Complex numbers 2) Series	
Links to websites and revision materials:	A Level Maths toolkit Edexcel specification www.physicsandmathstutor.com		

Term	Y13 Topics	Skills	Assessment
1	Core Pure 2 Decision 1	3) Calculus 4) Volumes of revolution 5) Polar coordinates Algorithms and graphs recap 7) Travelling salesman Critical path analysis recap	Review sheets for each chapter.
2	Core Pure 2 Decision 1	6) Hyperbolic functions Recap Yr 12 8) Simplex algorithm Recap Yr 12	Review sheets for each chapter.
3	Core Pure 2 Further Mechanics 1	7) Differential Equations – first order 8) Differential Equations – second order 3) Elastic strings 4) Elastic collisions	Internal Yr 13 exams.
4	Core Pure 2 Further Mechanics 1	Recap all material	
5	Consolidation and revision preparation for external A Level exams		Faculty timed mock examination papers. External Exams
6	On Exam Study leave		External Exams
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