

Further Mathematics KS5 Curriculum Map							
A. Formal Curriculum Key Stage 5							
Core Content & Skills		By the end of KS5, students of Mathematics should know how to construct and present mathematical arguments through appropriate use of diagrams, sketching graphs, logical deduction, and precise statements involving correct use of symbols and connecting language. They should also be able to recognise the underlying mathematical structure in a situation and simplify and abstract appropriately to enable problems to be solved.					
Prior Knowledge & Skills		In KS5, students of Mathematics will build on the following prior learning from GCSE: algebraic manipulation, number skills (including fractions and proportion), trigonometry, statistical representation and compound measures. Many students will have completed the AQA L2 Certificate in Further Maths.					
Future knowledge		The curriculum in KS5 Mathematics will prepare students for a degree or apprenticeship in many STEM subjects and/or subjects that require students to be both numerate and to analyse or model situations in an abstract manner. In addition, the study of Further Maths provides a distinct advantage for applications to Oxbridge and the very best Russell Group universities.					
Year 13	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1 Consolidation Complex Numbers Series Methods in Calculus Momentum / Impulse Work / Energy / Power Discrete Random Vars Poisson Distribution	Term 2 Volumes of Revolution Polar Coordinates Hyperbolic Functions Elastic Strings/Springs Elastic Collisions (1D) Binomial Distributions Hypothesis Testing Central Limit Theorem	Term 3 Differential Equations Elastic Collisions (2D) Chi-Squared Tests Probability GFs Quality of Tests	Term 4 Consolidation Revision	Term 5 Revision	Term 6 Revision
	Key assessment points	FPY1 Test			Past Papers	Past Papers	Past Papers
Year 12	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1	Term 2	Term 3	Term 4	Term 5 Complex Number Argand Diagrams Series Proof by Induction Roots of Polynomials	Term 6 Volumes of Revolution Matrices Linear Transformations Proof by Induction Vectors
	Key assessment points	IST PY1 Chapter 1-4 Test PY1 Chapter 5-8 Test	PY1 Chapter 11-14 Test PY2 Chapter 1-4Test	AY1 Statistics Test AY1 Mechanics Test PY2 Chapter 5-8 Test	AY2 Statistics Test AY2 Mechanics Test PY2 Chapter 9-12 Test		Internal Exams
B. Holistic development via Enrichment/Personal Development Curriculum/Digital Literacy							
<ul style="list-style-type: none"> <li>- Students are encouraged to read around the subject (borrowing books from the small departmental library) and to watch relevant YouTube content.</li> <li>- UKMT events such as the Senior Maths Challenge.</li> </ul>							

