

Mathematics

Subject Title	Mathematics
Exam board	Edexcel
Specification code	8MA0 (AS) 9MA0 (A level)
Exam details	<p>AS: 2 papers, each 2 hrs Paper 1 – Pure Mathematics Paper 2 – Statistics and Mechanics</p> <p>A2: 3 papers, each 2 hrs Paper 1 – Pure Mathematics Paper 2 – Pure Mathematics Paper 3 – Statistics and Mechanics</p>
Setting arrangements	n/a
Time allowed	<p>Year 12: 11 x 50 minute lessons Year 13: 12 x 50 minute lessons</p>
Link to the Toolkit:	A Level Maths toolkit
Textbooks and revision guides	<p>Pearson: AS and A Level Mathematics</p> <p>Pure Year 1/AS (ISBN: 9781292183398)</p> <p>Pure Year 2/A2 (ISBN: 9781292183404)</p> <p>Statistics and Mechanics Year 1 (ISBN: 9781292183282)</p> <p>Statistics and Mechanics Year 2 (ISBN: 9781446944073)</p>
Homework information	One substantial piece set weekly per teacher.

Term	Y12 Topics	Skills	Assessment
1	Pure mathematics: Algebra Trigonometry Calculus Geometry	1) Algebraic Expressions 2) Quadratics 3) Equations and inequalities 4) Graphs and transformations 5) Straight line graphs 6) Trigonometric ratios 7) Differentiation 8) Integration	Headstart test (preliminary assessment) Review sheets for each chapter. Progress assessment.
2	Pure mathematics: Algebra Trigonometry Calculus Geometry	9) Trigonometric identities and equations 10) Further Differentiation 11) Further Integration 12) Vectors 13) Algebraic methods 14) Circles	Review sheets for each chapter. Progress assessment.
3	Pure mathematics: Algebra Statistics: Handling data Mechanics: Introduction	Pure mathematics: 1) Binomial Expansion. 2) Exponentials and logarithms Statistics: 1) Sampling 2) Measures of location and spread Mechanics: 1) Modelling	Review sheets for each chapter.
4	Statistics: Handling data Probability Mechanics: Introduction	Statistics: 3) Representations of data 4) Correlation 5) Probability Mechanics: 1) Modelling in mechanics	Review sheets for each chapter.

5	<p>Statistics: Hypothesis Testing</p> <p>Mechanics: Kinematics</p>	<p>Statistics: 7) Hypothesis Testing</p> <p>Mechanics: 3) Variable acceleration</p>	Internal/External Exams
6	<p>Consolidation and revision preparation for external A Level exams</p> <p>Pure mathematics Year 2:</p>	<p>1) Algebraic methods</p> <p>2) Functions and graphs</p> <p>3) Differentiation</p> <p>4) Integration</p>	
Links to websites and revision materials:		<p>A Level Maths toolkit</p> <p>Edexcel specification</p> <p>www.physicsandmathstutor.com</p>	

Term	Y13 Topics	Skills	Assessment
1	<p>Pure mathematics 2: Algebra Calculus Trigonometry</p>	<p>1) Algebraic methods</p> <p>2) Functions and graphs</p> <p>3) Differentiation</p> <p>4) Integration</p> <p>5) Radians</p> <p>6) Trigonometric functions</p> <p>7) Trigonometry and modelling</p>	Review sheets for each chapter.
2	<p>Pure mathematics 2: Algebra Calculus</p>	<p>8) Parametric equations</p> <p>9) Differentiation (with trigonometric functions)</p> <p>10) Sequences and Series</p> <p>11) Vectors</p>	Review sheets for each chapter.
3	<p>Pure mathematics 2: Algebra</p> <p>Mechanics:</p>	<p>Pure mathematics: 12) Binomial Expansion. 13) Numerical methods</p> <p>4) Moments</p>	Internal Yr 13 exams.

		5) Forces and friction 6) Projectiles	
4	Statistics Mechanics	Statistics: 1) Regression and correlation 2) Conditional probability 3) Normal Distribution Mechanics: 7) Forces 8) Further kinematics	
5	Consolidation and revision preparation for external A Level exams		Faculty timed mock examination papers. External Exams
6	On Exam Study leave		External Exams
Links to websites and revision materials:		A Level Maths toolkit Edexcel specification www.physicsandmathstutor.com	