

## Maths

*“If you aim higher than you expect, you could reach higher than you dreamed” Richard Branson*

Date last reviewed: Autumn 2024

This document represents a sequenced response to the year 7 and 8 curriculum.

The maths department at Arrow Vale aims to provide students with the opportunities to become proficient in the key skills and attributes required to solve problems in maths and related subjects. The curriculum covers the broad topics of Number, Algebra, Ratio and Proportion, Probability, Geometry and Statistics to ensure a wide exposure to the knowledge and vocabulary required to prepare students for future academic and career opportunities as well as ensuring they are fluent mathematicians in real-life contexts. We offer a successful and highly regarded A Level programme, and students can also choose to study A Level Further Maths.

The spiral nature of the curriculum throughout the whole school journey provides opportunities to regularly revisit previous learning and build on these skills to obtain the cumulative knowledge required to meet ambitious end points. A student will have frequent opportunities to solve problems, develop their reasoning skills and improve their understanding of mathematical language. Our Key Stage 3 curriculum exceeds the National Curriculum and high attaining groups enjoy enriching learning beyond the specification at Key Stages 4 and 5.

The curriculum is designed to suit students of any prior attainment and is ambitious for all. Different strands of the curriculum prioritise sub-topics and differ in difficulty; high prior attaining students will be stretched to solve abstract problems at a higher level and lower prior attainers are supported to master fundamental mathematical skills. Curriculum sequencing and resources are designed with mastery approaches so that all students will experience opportunities to make connections between topics through representations, improve their mathematical thinking skills with considered approaches to problem-solving, and regularly recall learning to build fluency.

The Maths department are committed to the ethos of the SEND department whereby no child is left behind. The curriculum is broad and balanced and teaching materials and resources are designed with SEND research in mind, making further arrangements to suit individuals' needs. We are also proud to offer the Arithmetic Programme for some students to enhance their basic number skills and prepare them for practical applications in life as well as future learning. The maths department also offers various enrichment opportunities such as the UKMT, Level 2 Extended Maths Certificate and CRST maths challenges.

The highly qualified and passionate staff in the maths department work collaboratively to continually improve the curriculum and resources and receive frequent subject-specific training to ensure the latest research is refining the quality of teaching and learning. The team are passionate and inspire students to have a love for the subject which continues in their further studies and careers. Lessons are engaging and use a wide range of classroom resources, with chances for students to discuss their ideas and work as a team alongside opportunities for independent, purposeful practice. Weekly maths homework supports students with recall and is carefully planned to enhance learning in lessons and complement the curriculum. It is designed to instil confidence and prepare students to be self-motivated and independent.

KS3			
Term/Length of Unit	Outline	Knowledge and Skills	End points and associated key assessments
Year 9 Autumn Term – Half Term 1	<p><u>Mastery and Securing</u> Calculations Checking and Rounding</p> <p>Index Laws</p> <p>Factors, Multiples and Primes</p> <p>Standard Form</p> <p>Algebra The Basics</p> <p>Quadratics</p> <p><u>Developing</u> Calculations</p> <p>Calculations Checking and Rounding</p> <p>Index Laws</p>	<p><u>Mastery and Securing</u> <i>Four Operations with Decimals, Rounding and Estimation</i></p> <p><i>Work with powers of 10, apply basic index laws and work with fractional and negative indices</i></p> <p><i>Prime Factor Decomposition and HCF/LCM</i></p> <p><i>Converting and Calculating with Standard Form</i></p> <p><i>Introduce key algebraic vocabulary. Show methods for algebraic manipulation, leading to solving</i></p> <p><i>Factorising and Solving quadratics – including completing the square and the quadratic formula</i></p> <p><u>Developing</u> <i>Four Operations with Decimals, working with negative numbers, Order of Operations</i></p> <p><i>Rounding to decimal places and significant figures, estimation</i></p> <p><i>Identify square and cube numbers. Work with powers of 10, apply basic index laws including negatives and brackets</i></p>	<p><u>All students</u> Baseline Assessment Mini Assessment x 2 with feedback</p>

Maths Curriculum

	<p>Factors, Multiples and Primes</p> <p>Algebra The Basics</p> <p>Algebra The Basics</p> <p><u>Emerging</u> Place Value</p> <p>Calculations</p> <p>Calculations Checking and Rounding</p> <p>Addition and Subtraction</p>	<p><i>Prime Factor Decomposition and HCF/LCM</i></p> <p><i>Introduce key algebraic vocabulary. Show methods for algebraic manipulation</i></p> <p><i>Expanding and factorising brackets.</i></p> <p><u>Emerging</u> <i>Comparing and ordering numbers. Rounding. Negative numbers in context.</i></p> <p><i>Four Operations with Decimals, working with negative numbers, Order of Operations</i></p> <p><i>Rounding to decimal places and significant figures, estimation</i></p> <p><i>Complements and mental addition and subtraction. Adding and subtracting with decimals and money</i></p>	
<p>Autumn Term – Half Term 2</p>	<p><u>Mastery and Securing</u></p> <p>Sequences</p> <p>Straight Line Graphs</p>	<p><u>Mastery and Securing – knowledge and skills in yellow are Mastery only</u></p> <p><i>Recognise and generate sequences, find nth term of linear sequence, generate and find rules for quadratics sequences.</i></p>	<p><u>All students</u> Mini Assessment x 2 with feedback</p> <p>Formal topic assessment.</p>

	<p>Quadratic Graphs</p> <p>Percentages</p> <p>Proportion</p> <p><u>Developing</u></p> <p>Sequences</p> <p>Fractions – including operations with fractions</p> <p>Fractions, Decimals and Percentages</p> <p><u>Emerging</u></p> <p>Multiplication and Division</p>	<p><i>Plot straight line graphs, find the gradient from 2 points, find the equation of a straight line, <b>parallel and perpendicular lines</b></i></p> <p><i>Recognise non-linear graphs from their shape, plot quadratic graphs, plot cubic, reciprocal and exponential graphs, <b>plot graphs of circles</b></i></p> <p><i>Find a percentage of a quantity, increase and decrease by a percentage, using multipliers, simple and compound interest and depreciation</i></p> <p><i>Unitary method, Recipe problems, currency conversion, inverse proportion</i></p> <p><u>Developing</u></p> <p><i>Describing sequences and finding the nth term</i></p> <p><i>Comparing fractions, ordering fractions and fractions of amounts. Four operations with fractions and mixed numbers</i></p> <p><i>Converting between fractions, decimals and percentages. Finding percentages of amounts, increasing and decreasing with percentages. Reverse percentage problems</i></p> <p><u>Emerging</u></p> <p><i>Multiplication facts and practice. Factors and Multiples introduction</i></p>	
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Maths Curriculum

	<p>Factors, Multiples and Primes</p> <p>Solving Numerical Problems</p>	<p><i>Prime Factor Decomposition and HCF/LCM</i></p> <p><i>Inverse operations. Balancing and the meaning of the equals sign. BIDMAS</i></p>	
<p>Spring Term – Half Term 1</p>	<p><u>Mastery and Securing</u></p> <p>Pythagoras</p> <p>Trigonometry</p> <p>Polygons, Angles in Parallel Lines</p> <p>Similar Shapes</p> <p>Transformations</p> <p><u>Developing</u></p> <p>Ratio</p>	<p><u>Mastery and Securing</u> – <b>knowledge and skills in yellow are Mastery only</b></p> <p><i>Finding different sides of right angled triangles using Pythagoras’ Theorem. Finding the length of line segments on a graph. <b>3D Pythagoras</b></i></p> <p><i>Finding lengths and angles of right angled triangles using Trigonometry, leading to problem solving and real life problems</i></p> <p><i>Basic angles facts, e.g. angles in a triangle, on a straight line. Angles in parallel lines. Interior and exterior angles of polygons. <b>Angle proofs</b></i></p> <p><i>Similar Triangles. Similar Shapes. Area scale factor. <b>Volume scale factor</b></i></p> <p><i>Enlargements (with fractional and <b>negative scale factors</b>), translations, reflections and rotations.</i></p> <p><i><u>Developing</u></i></p> <p><i>Simplifying ratio. Ratio and fractions. Sharing in a Ratio.</i></p>	<p><u>All students</u></p> <p>Mini Assessment x 1 with feedback</p>

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	<p>Proportion</p> <p>Angles</p> <p>Angles in Polygons</p> <p>Tables</p> <p>Probability</p> <p><u>Emerging</u></p> <p>Fractions, Decimals and Percentages</p>	<p><i>Best buys, unitary method. Conversion graphs. Currency conversion.</i></p> <p><i>Using a protractor. Angle facts with triangles. Angles in parallel lines.</i></p> <p><i>Internal and external angles. Tessellation.</i></p> <p><i>Two Way Tables. Frequency tables.</i></p> <p><i>Write probabilities using words. Outcomes, events and relative frequency.</i></p> <p><i><u>Emerging</u></i></p> <p><i>Converting between fractions, decimals and percentages. Finding percentages of amounts, increasing and decreasing with percentages.</i></p>	
<p>Spring Term – Half Term 2</p>	<p><u>Mastery and Securing</u></p> <p>Congruency</p> <p>Experimental Probability</p>	<p><u>Mastery and Securing – knowledge and skills in yellow are Mastery only</u></p> <p><i>Use SSS, SAS, ASA and RHS conditions to prove congruence. Prove that shapes are congruent (Securing will miss this unit)</i></p>	<p><u>All students</u> Mini Assessment x 2 with feedback</p>



Maths Curriculum

	<p>Area and Perimeter</p> <p>Surface Area and Volume</p> <p><u>Emerging</u></p> <p>Ratio and Proportion</p> <p>Angles</p> <p>Algebra The Basics</p> <p>Algebra The Basics</p>	<p><i>Convert metric units. Perimeter and Area of rectangles, triangles, parallelograms and trapezia. Compound shapes.</i></p> <p><i>Volume and Surface Area of prisms.</i></p> <p><i>Scale and ratio in real life. Simplifying ratio. Ratio and fractions. Sharing in a Ratio.</i></p> <p><i>Using a protractor. Angle facts with triangles. Angles in parallel lines.</i></p> <p><i>Introduce key algebraic vocabulary. Show methods for algebraic manipulation</i></p> <p><i>Expanding and factorising brackets.</i></p>	
<p>Summer Term – Half Term 1</p>	<p><u>Mastery and Securing</u></p> <p>Representing Data</p> <p>Volume</p>	<p><u>Mastery and Securing – knowledge and skills in yellow are Mastery only</u></p> <p><i>Pie Charts. Frequency Polygons. Scatter Graphs. Histograms</i></p> <p><i>Volume of cubes, cuboids, other prisms, cylinders, cones, pyramids and spheres. (Securing will do area and perimeter to prepare for this unit)</i></p>	<p><u>All students</u></p> <p>CRST KS3 Assessment</p>

Maths Curriculum

	<p><u>Developing</u></p> <p>Charts and Graphs</p> <p><u>Emerging</u></p> <p>Proportion</p>	<p><u>Emerging</u></p> <p><i>Pictograms. Bar Charts. Steam and Leaf Diagrams.</i></p> <p><u>Emerging</u></p> <p><i>Best buys, unitary method. Conversion graphs. Currency conversion.</i></p>	
<p>Summer Term – Half Term 2</p>	<p><u>Mastery and Securing</u></p> <p>Circles</p> <p><u>Circle Theorems</u></p> <p>Simultaneous Equations</p> <p>Surds</p>	<p><b><u>Please note – there is a period during this term where time will be dedicated to reviewing previous learning and preparing for End of Year Assessments</u></b></p> <p><u>Mastery and Securing – knowledge and skills in yellow are Mastery only</u></p> <p><i>Area of compound shapes, including circles and trapezia. Converting between metric units. Perimeter of circles including compound shapes. Area of circles and parts of circles. Arcs, sectors and answers using “pi”</i></p> <p><u>Learn the Circle Theorems and apply them to solve problems. Proof of circle theorems</u></p> <p><i>Solve linear simultaneous equations by elimination. Solve simultaneous equations involving a quadratic. Solve equations where a line intersects a circle</i></p> <p><i>Understand surd notation and simplify surds. Adding and subtracting with surds. Expanding brackets including surds. Rationalising</i></p>	<p><u>All students</u></p> <p>Mini Assessment x 1 with feedback</p> <p>End of Year Exam assessing all Year 9 Maths content.</p>

Maths Curriculum

	Constructions & Loci	<i>Solve Loci problems. Bisect lines and angles. Calculate bearings and solve problems. Plans and Elevations</i>	
	<u>Developing</u>	<u>Developing</u>	
	Straight Line Graphs	<i>Plot lines of the form <math>y=mx + c</math>. Gradient and Equation of straight lines.</i>	
	Pie Charts and Scatter Graphs	<i>Pie Charts. Scatter Diagrams and lines of best fit.</i>	
	Transformations	<i>Translations. Reflections. Rotations. Enlargement.</i>	
	Constructions, Loci and Bearings	<i>Construct triangles, perpendicular bisectors, angle bisectors. Bearings.</i>	
	<u>Emerging</u> Review	<u>Emerging</u> <b>Students will review previous learning in the Summer Term. This may be more focus on the Arithmetic Programme or stretching students on to Developing level learning.</b>	
<b>KS4 Curriculum</b>			

Maths Curriculum

<p>Autumn Term – Year 10 – Half Term 1</p>	<p><u>Grade 6-9</u> Number  Geometry  Algebra Number Algebra  <u>Grade 5 “Crossover”</u> Number  Ratio and Proportion  <u>Grade 3-5</u> Number  Ratio and Proportion Number</p>	<p><u>Grade 6-9</u> Integers and Surds Standard Form Further Trigonometry Trigonometrical Graphs Quadratics Fractions, Decimals, Percentages Algebraic Manipulation  <u>Grade 5 “Crossover”</u> Rounding, Bounds and Errors Indices, Powers and Roots Standard Form Percentages Ratio Proportion  <u>Grade 3-5</u> Integers Indices, Powers and Roots Standard Form Percentages Simple and Compound Interest Ratio Proportion Inequalities  <i>This Foundation curriculum can be adapted to review some of the Arithmetic Programme content from Key Stage 3 where needed for lower attaining students</i></p>	<p><u>All students</u> Mini Assessment x 3 with feedback</p>
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Maths Curriculum

	<p><u>Grade 3-5</u> Geometry</p> <p>Algebra</p>	<p><u>Grade 3-5</u> Circles Volume and Surface Area Similar Shapes Trigonometry Vectors Plotting Graphs</p>	
<p>Spring Term – Year 10 – Half Term 2</p>	<p><u>Grade 6-9</u> Ratio and Proportion</p> <p>Number Algebra Geometry Statistics Algebra</p> <p><u>Grade 5-7 “Crossover”</u> Statistics</p> <p>Algebra</p> <p>Statistics</p> <p><u>Grade 3-5</u> Geometry Algebra</p> <p>Statistics</p> <p>Geometry</p>	<p><u>Grade 6-9</u> Direct and Inverse Proportion Proportion Compound Measures Sequences Volume and Surface Area Probability Iteration</p> <p><u>Grade 5-7 “Crossover”</u> Trigonometry Vectors Sequences Graphs Solving Equations Simultaneous Equations Probability</p> <p><u>Grade 3-5</u> Solving Equations Simultaneous Equations Probability Probability Diagrams Sampling and Averages Transformations</p>	<p><u>All students</u> Mini Assessment x 2 with feedback</p>

Maths Curriculum

<p>Summer Term – Year 10 – Half Term 1</p>	<p><u>Grade 6-9</u> Statistics Algebra</p> <p><u>Grade 5 “Crossover”</u> Statistics</p> <p><u>Grade 3-5</u> Geometry Algebra</p>	<p><u>Grade 6-9</u> Cumulative Frequency and Box Plots Transformations of Functions</p> <p><u>Grade 5 “Crossover”</u> Probability Diagrams Sampling and Averages</p> <p><u>Grade 3-5</u> Loci and Bearings Sequences</p>	<p><u>All students</u> GCSE Mock Exam (2 x papers)</p>
<p>Summer Term – Year 10 – Half Term 2</p>	<p><u>Grade 6-9</u> Geometry Algebra</p> <p><u>Grade 5 “Crossover”</u> Geometry</p> <p><u>Grade 3-5</u> Geometry</p>	<p><b><u>Please note – there is a period during this term where time will be dedicated to reviewing previous learning and preparing for End of Year Assessments</u></b></p> <p><u>Grade 6-9</u> Histograms Circle Theorems Real Life Graphs</p> <p><u>Grade 5-7 “Crossover”</u> Transformations Loci Bearing Angles in Polygons</p> <p><u>Grade 3-5</u> Angles in Polygons</p>	<p><u>All students</u></p> <p>In class GCSE paper x 1 Mini assessment with feedback x 1</p>

Maths Curriculum

<p>Autumn Term – Year 11 – Half Term 1</p>	<p><u>Grade 6-9</u> Ratio and Proportion</p> <p>Statistics Geometry</p> <p>Algebra</p> <p><u>Grade 5</u> Number Algebra</p> <p>Ratio and Proportion Geometry</p> <p>Statistics</p> <p><u>Grade 3-5</u> Number Ratio and Proportion Number Statistics Algebra Geometry</p>	<p><b><u>The start of Year 11 topics are chosen based on the most common topics from GCSE exams, topics which from results analysis that our students struggle with and also some of the most challenging topics to prepare for November exams</u></b></p> <p><u>Grade 6-9</u> Rates of Change Exponential Graphs Probability Diagrams Surface Area and Volume Arcs, Sectors, Segments Quadratics</p> <p><u>Grade 5</u> Error Intervals Quadratics Linear Graphs Simultaneous Equations Geometric Progressions Compound Interest and Depreciation Similarity and Congruence Trigonometry Sectors, Spheres, Pyramids, Cones Vectors Probability Tree Diagrams Stratified Sampling</p> <p><u>Grade 3-5</u> Fractions, Decimals and Percentages Ratio 4 Operations with Fractions Probability Algebra – The Basics Angles in Polygons</p>	<p><u>All students</u> Mini Assessment x 2 with feedback GCSE Mock Exam (1 x paper)</p>
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Maths Curriculum

<p>Autumn Term – Year 11 – Half Term 2</p>		<p>At this stage in the curriculum, students’ ability to ensure examination responses reflect their understanding of curriculum content in full is the key skill that we develop in students (examination skills). The examination skills needed to answer the Maths examinations are taught explicitly. Opportunities to practise these skills are provided. These examination skills will include time management, recognition of types of responses required and the ability to utilise mark schemes to aid understanding. The intent is to allow students to reach their full potential by being able to demonstrate this in the required examination format. Alongside the examination skills, classroom teachers will use adaptive teaching, in response to formative assessments, to re-visit the curriculum areas which have not been fully understood by students. Due to the nature of differences in classes, this will be different between classes but all through the same primary vehicle of examination skills development</p> <p><b>After the November Mock Exams, students will complete a GCSE past paper in class on a Friday (Past Paper Friday). This links to their home learning.</b></p>	<p><u>All students</u> GCSE Mock Exam (2 x papers – making a full series with the one from the previous Half Term) Mini Assessment x 1 with feedback</p>
<p>Spring Term – Year 11 – Half Term 1</p>		<p>At this stage in the curriculum, students’ ability to ensure examination responses reflect their understanding of curriculum content in full is the key skill that we develop in students (examination skills). The examination skills needed to answer the Maths examinations are taught explicitly. Opportunities to practise these skills are provided. These examination skills will include time management, recognition of types of responses required and the ability to utilise mark schemes to aid understanding. The intent is to allow students to reach their full potential by being able to demonstrate this in the required examination format. Alongside the examination skills, classroom teachers will use adaptive teaching, in response to formative assessments, to re-visit the curriculum areas which have not been fully understood by students. Due to the nature of differences in classes, this will be different between classes but all through the same primary vehicle of examination skills development</p>	<p><u>All students</u> “Mid Mocks” GCSE Paper in class GCSE Mock Exam (3 x papers) <i>over 2 weeks either side of Half Term</i></p>

Maths Curriculum

Spring Term – Year 11 – Half Term 2		<p>At this stage in the curriculum, students’ ability to ensure examination responses reflect their understanding of curriculum content in full is the key skill that we develop in students (examination skills). The examination skills needed to answer the Maths examinations are taught explicitly. Opportunities to practise these skills are provided. These examination skills will include time management, recognition of types of responses required and the ability to utilise mark schemes to aid understanding. The intent is to allow students to reach their full potential by being able to demonstrate this in the required examination format. Alongside the examination skills, classroom teachers will use adaptive teaching, in response to formative assessments, to re-visit the curriculum areas which have not been fully understood by students. Due to the nature of differences in classes, this will be different between classes but all through the same primary vehicle of examination skills development</p> <p><b>After the February Mock Exams, students will complete a weekly GCSE paper assessment. Home learning tasks will support with preparing for these, along with tailored lessons to learn key topics.</b></p>	<p><u>All students</u> GCSE Mock Exam (3 x papers) <i>over 2 weeks either side of Half Term</i> Weekly Past Paper Practice (after February Mocks)</p>
Summer Term – Year 11 – Half Term 1		<p><b>After the February Mock Exams, students will complete a weekly GCSE paper assessment. Home learning tasks will support with preparing for these, along with tailored lessons to learn key topics.</b></p>	<p><u>All students</u> Weekly Past Paper Practice</p>

*The below document is in 2 parts, detailing the A Level Mathematics course, followed by A Level Further Mathematics*

**Part 1 – A Level Mathematics**

The A Level Maths course is in 3 parts:

Pure Maths (Two thirds of the course)

Statistics (One sixth of the course)

Mechanics (One sixth of the course)

<b>Term/Length of Unit</b>	<b>Outline</b>	<b>Knowledge and Skills</b>	<b>End points and associated key assessments</b>
Autumn Term – Year 12 – Half Term 1	Pure	Radians Exponentials and Logarithms Straight Line Graphs Algebraic Expression Circle Geometry Quadratics	End of unit mini-assessments  Pure Maths assessment on Radians and Logarithms
Autumn Term – Year 12 – Half Term 2	Statistics  Pure	Probability  Equations and Inequalities Algebraic Methods Trigonometric Ratios Differentiation	End of unit mini-assessments  Statistics assessment on Probability  Pure Maths assessment on everything covered so far

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<p>Spring Term – Year 12 – Half Term 1</p>	<p>Pure  Statistics  Pure  Statistics</p>	<p>Trigonometric Identities Differentiation  Correlation and Regression  Vectors  Probability Distribution</p>	<p>End of unit mini-assessments</p>
<p>Spring Term – Year 12 – Half Term 2</p>	<p>Pure  Statistics    Pure</p>	<p>Integration  Hypothesis Tests Data Collection Measures of Location and Spread Representations of Data  Binomial Expansion</p>	<p>End of unit mini-assessments  Pure Maths and Statistics assessments on everything covered so far</p>
<p>Summer Term – Year 12 – Half Term 1</p>	<p>Statistics  Pure</p>	<p>Normal Distribution  Graphs and Transformations Proof Exponentials and Logarithms  Revision</p>	<p>Pure Maths – full AS level paper  Statistics – full A level paper</p>
<p>Summer Term – Year 12 – Half Term 2</p>	<p>Mechanics  Pure</p>	<p>Modelling in Mechanics Constant Acceleration  Radians Trigonometric Functions Sequences and Series (Summer Work)</p>	<p>End of unit mini-assessments</p>

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Autumn Term – Year 13 – Half Term 1	Pure  Mechanics	Trigonometry and Modelling Differentiation Binomial Expansion Algebraic Methods  Forces and Motion Variable Acceleration	End of unit mini-assessments
Autumn Term – Year 13 – Half Term 2	Pure  Mechanics	Integration  Moments Forces and Friction	Pure Maths – full paper with any uncovered topics removed.  Full Statistics paper, Mechanics AS Level paper as mock exams
Spring Term – Year 13 – Half Term 1	Pure  Mechanics	Integration Functions and Graphs  Projectiles	Weekly Past Paper Practice (also used for Home Learning) Full A Level papers as mock Exams
Spring Term – Year 13 – Half Term 2	Pure  Mechanics	Numerical Methods  Applications of Forces	Weekly Past Paper Practice (also used for Home Learning)  Full A Level papers as mock exams
Summer Term – Year 13 – Half Term 1	Pure  Mechanics	Proof  Further Kinematics  Exam Preparation	Weekly Past Paper Practice (also used for Home Learning)

## Maths Curriculum

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### Part 2 – A Level Further Mathematics

The A Level Further Maths course is in 3 parts. The Pure Maths is the compulsory element. We have then chosen the applied elements from

Pure Maths (Two thirds of the course)

Further Mechanics 1 (One sixth of the course)

Decision Maths 1 (One sixth of the course)

Term/Length of Unit	Outline	Knowledge and Skills	End points and associated key assessments
Autumn Term – Year 12 – Half Term 1	Pure  Decision	Complex Numbers Argand Diagrams  Algorithms Graphs and Networks Algorithms on Graphs	End of unit mini-assessments  Pure Maths assessment on Complex Numbers and Argand Diagrams
Autumn Term – Year 12 – Half Term 2	Pure  Decision	Series Roots of Polynomials Matrices  Route Inspection	End of unit mini-assessments  Decision assessment on Algorithms  Pure Maths assessment on everything covered so far

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Spring Term – Year 12 – Half Term 1	Pure  Decision	Linear Transformations Proof by Induction  Linear Programming	End of unit mini-assessments
Spring Term – Year 12 – Half Term 2	Pure  Decision	Vectors Volume of Revolution  The Simplex Algorithm Critical Path Analysis	End of unit mini-assessments  Pure Maths and Decision assessments on everything covered so far (D1 may be a full paper)
Summer Term – Year 12 – Half Term 1	Pure  Decision	Revision Mock exam feedback  Revision Mock exam feedback	Pure Maths – full AS level paper  Decision Maths – full A level paper
Summer Term – Year 12 – Half Term 2	Pure  Mechanics	Mock Exam feedback Polar Coordinates Differentiation and Integration  Modelling for Further Mechanics Momentum and Impulse	End of unit mini-assessments
Autumn Term – Year 13 – Half Term 1	Pure  Mechanics	Complex Numbers Series  Work, Energy and Power Elastic Collisions in 1D	End of unit mini-assessments

Maths Curriculum

<p>Autumn Term – Year 13 – Half Term 2</p>	<p>Pure  Mechanics</p>	<p>Methods in Calculus Volumes of Revolution  Elastic Strings and Springs</p>	<p>End of unit mini-assessments  Pure Maths – full paper with any uncovered topics removed.  Full Decision paper  A/S Mechanics paper</p>
<p>Spring Term – Year 13 – Half Term 1</p>	<p>Pure  Mechanics</p>	<p>Hyperbolic Functions  Elastic Collisions in 2D</p>	<p>End of unit mini-assessments  Weekly Past Paper Practice (also used for Home Learning)</p>
<p>Spring Term – Year 13 – Half Term 2</p>	<p>Pure</p>	<p>Methods in Differential Equations Modelling with Differential Equations  Exam Preparation</p>	<p>End of unit mini-assessments  Weekly Past Paper Practice (also used for Home Learning)  Full A Level papers as mock exams</p>
<p>Summer Term – Year 13 – Half Term 1</p>		<p>Exam Preparation</p>	<p>Weekly Past Paper Practice (also used for Home Learning)</p>