



BBG Academy Curriculum 2025-2026 – Mathematics

This document contains details of how the subject is sequenced over the years of delivery. Included are assessment points and the prior learning that will be included in these assessments. It also includes where topics are revisited to maximise student retrieval and retention. Along with curriculum content, opportunities to develop links with careers are also identified in order to bring the relevance of the curriculum into the wider life context.

Curriculum Intent Statement

Year 11 SOW is based on the Sparx SOW below however staff are able to use mocks and in class assessments to determine the order of topics so the SOW is bespoke for each class

Year 11

Year 11 assessment dates

Assessment week 1 – October Mocks

Assessment week 2 – January Mocks

Term	Content	Sequencing	Assessment	Careers links & Experiences
Autumn 1	<p>Number Finding the lowest common multipleU751 Finding the highest common factorU529 Prime factor decompositionU739 Finding the HCF and LCM using prime factor decompositionU250 Ordering fractions and mixed numbersU439 Adding and subtracting mixed numbersU793 Multiplying with mixed numbersU224 Dividing with mixed numbersU538</p> <p>Indices Simplifying expressions using index lawsU662 Simplifying algebraic fractions by cancelling common factorsU103</p> <p>Algebra Solving equations with two or more stepsU325 Solving equations with the unknown on both sidesU870 Solving equations with the unknown in the denominatorU505</p>	<p>Finding factors and using divisibility testsU211 Finding prime numbersU236 Venn diagramsU476 Simplifying fractionsU646 Ordering fractionsU746 Converting between mixed numbers and improper fractionsU692 Adding and subtracting fractionsU736 Multiplying fractionsU475 Dividing fractionsU544</p> <p>Index rules with positive indicesU235 Index rules with negative indicesU694</p> <p>Simplifying expressions by collecting like termsU105 Simplifying fractionsU646 Solving equations with one stepU755</p>	<p>Consolidation/Summative assessment: October Mocks</p> <p>On going in class assessments</p>	<p>WHY MATHS - When will I ever need this? Resource - AMSP</p> <p>What Is Mathematical Modelling? - Maths Careers</p> <p>Engineering Cycling Gold - Maths Careers</p>

	<p>Constructing and solving equationsU599 Factorising to solve quadratic equations of the form $x^2+bx+c=0$U228 Solving quadratic equations graphicallyU601 Solving simultaneous equations using eliminationU760 Solving simultaneous equations using substitutionU757 Solving simultaneous equations graphicallyU836 Constructing and solving simultaneous equationsU137</p> <p>Angles Combining angle factsU655 Angles on parallel linesU826 Using quadrilateral properties to find anglesU329 Angles in polygonsU427</p> <p>Pythagoras and trigonometry Using Pythagoras' theorem in 2DU385 Applying Pythagoras' theorem in 2DU828 Finding unknown sides in right-angled trianglesU283 Finding unknown angles in right-angled trianglesU545 Using the exact values of trigonometric ratiosU627 Angles of elevation and depressionU967 Calculating bearingsU107 Calculating with trigonometry and bearingsU164</p> <p>Surface area and volume Finding the surface area of cones and spheresU771 Finding the surface area of frustumsU334 Finding the surface area of composite shapesU561</p> <p>Finding the volume of cones and spheresU426 Finding the volume of frustumsU350 Finding the volume of composite shapesU543</p> <p>Data</p>	<p>Factorising quadratic expressions of the form x^2+bx+cU178 Plotting straight line graphsU741 Substituting into algebraic formulaeU585 Changing the subjects of formulae with two or more stepsU181</p> <p>Angles on a line and about a pointU390 Vertically opposite anglesU730 Angles in trianglesU628 Angles in quadrilateralsU732 Line and shape propertiesU121</p> <p>Calculating with roots and powersU851 Solving equations with two or more stepsU325 Changing the subjects of formulae with two or more stepsU181</p> <p>Angles in trianglesU628 Angles on parallel linesU826 Understanding sin, cos and tanU605 Measuring and drawing bearingsU525</p> <p>Finding the surface area of cubes and cuboidsU929 Finding the surface area of prismsU259 Finding the surface area of pyramidsU871 Finding the surface area of cylindersU464 Finding the volume of cubes and cuboidsU786 Finding the volume of prismsU174 Finding the volume of pyramidsU484 Finding the volume of cylindersU915 Angles on a line and about a pointU390 Finding fractions of amountsU881, U916</p>		
--	--	---	--	--

	<p>Drawing pie charts U508 Interpreting pie charts U172 Plotting scatter graphs U199 Interpreting scatter graphs U277 Using lines of best fit U128</p>	<p>Bar charts U363, U557 Line graphs U590, U193 Interpreting frequency tables with grouped data U312</p>		
Spring 1	<p>Probability</p> <p>Probabilities of mutually exclusive events U683 Sample space diagrams U104 Expected results from repeated experiments U166 Venn diagrams with set notation U748 Using set notation U296 Tree diagrams for independent events U558 Tree diagrams for dependent events U729 Experimental probabilities U580</p> <p>Inequality</p> <p>Solving inequalities with the unknown on both sides U738 Solving double inequalities U145 Constructing and solving inequalities U337</p> <p>Vectors</p> <p>Adding and subtracting column vectors U903 Multiplying column vectors by a scalar U564 Identifying parallel vectors U660 Solving geometric problems using vectors U781</p> <p>Percentage</p> <p>Percentage change with a calculator U671 Finding original amounts in percentage calculations U286 Finding the percentage an amount has been changed by U278 Compound interest calculations U332 Growth and decay U988 Calculating with speed U151 Calculating with rates U256</p>	<p>Writing probabilities as fractions, decimals and percentages U510 Venn diagrams U476 Frequency trees U280 Calculations with fractions U736, U475, U544</p> <p>Reading and drawing inequalities on number lines U509 Solving single inequalities U759 Solving equations with the unknown on both sides U870</p> <p>Understanding column vectors U632</p> <p>Finding percentages of amounts without a calculator U554 Finding percentages of amounts with a calculator U349 Percentage change without a calculator U773 Substituting into formulae U585, U144 Solving equations U325, U505 Changing the subjects of formulae with two or more steps U181</p>	<p>Assessment week 1</p> <p>End of January Mocks</p> <p>On going in class assessments</p> <p>Sparx Maths Curriculum - View the Curriculum</p>	<p>WHY MATHS - I can't do it! Resource - AMSP</p> <p>Algorithms: The Good, the Bad, and the Mutant - Maths Careers</p> <p>Careers in Maths: What is a Digital Processor System Engineer? - Maths Careers</p>

	<p>Calculating with density U910 Calculating with pressure U527</p> <p>Ratios Combining ratios U921 Calculating with ratios and algebra U676 Changing ratios U865</p> <p>Proportion Solving direct proportion word problems U721 Solving inverse proportion word problems U357 Currency conversion U610</p> <p>Standard form Multiplying and dividing numbers in standard form U264 Adding and subtracting numbers in standard form U290 Standard form with a calculator U161</p> <p>Sequences Position-to-term rules for arithmetic sequences U498 Position-to-term rules for sequences of patterns U978 Position-to-term rules for geometric sequences U958 Special sequences U680</p> <p>Straight line graphs Plotting straight line graphs U741 Finding equations of straight line graphs U315 Interpreting equations of straight line graphs U669 Equations of parallel lines U377 Finding the equation of a straight line from its gradient and a point U477 Finding the equation of a straight line from two points on the line U848</p>	<p>Reading, converting and calculating with time U902 Converting units of length, mass and capacity U388 Converting units of area and volume U248, U468</p> <p>Writing and simplifying ratios U687 Using equivalent ratios to find unknown amounts U753 Sharing amounts in a given ratio U577 Converting between ratios, fractions and percentages U176</p> <p>Using standard form with positive indices U330 Using standard form with negative indices U534 Index rules with positive indices U235 Index rules with negative indices U694</p> <p>Term-to-term rules U213 Substituting into position-to-term rules U530</p> <p>Reading and plotting coordinates U789</p>		
<p>Summer 1</p>	<p>Revision for exams</p>		<p>Assessment week 2 –</p>	<p>Resource - AMSP</p>



BBG Academy Curriculum 2025-2026 – Mathematics

			<p>Sparx Maths Curriculum - View the Curriculum</p>	<p>WHY MATHS - Why go further!</p> <p>Search Algorithms - Helping Tesco's online customers find what they're looking for - Maths Careers</p> <p>Four different careers that use maths - Maths Careers</p>
--	--	--	---	---



BBG Academy Curriculum 2025-2026 – Mathematics