



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 10

Year 10 assessment dates

Assessment week 1 – November assessment

Assessment week 2 – February assessment

Assessment week 3 – June assessment

Term	Content	Sequencing	Assessment	Careers links & Experiences
Autumn 1	<p>Percentage Compound interest calculations U332 Growth and decay U988</p> <p>Volume and Surface Area Finding the surface area of pyramids U871 Finding the surface area of cones U523 Finding the surface area of spheres U893 Finding the surface area of frustums U334 Finding the surface area of composite shapes U561 Finding the volume of pyramids U484 Finding the volume of cones U116</p>	<p>Previous topics built on in this topic:</p> <p>Percentage change with a calculator U671 Finding original values in percentage calculations U286 Finding the surface area of cubes and cuboids U929 Finding the surface area of prisms U259 Finding the surface area of cylinders U464</p> <p>Finding the volume of cubes and cuboids U786 Finding the volume of prisms U174 Finding the volume of cylinders U915</p>	<p>Consolidation/Summative assessment: Scaled GCSE paper</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>Finding the volume of spheres U617 Finding the volume of frustums U350 Finding the volume of composite shapes U543</p> <p>Solving Simultaneous Equations</p> <p>Solving simultaneous equations using elimination U760 Solving simultaneous equations using substitution U757 Solving simultaneous equations graphically U836 Constructing and solving simultaneous equations U137</p> <p>Changing the subject</p> <p>Changing the subjects of formulae with two or more steps U181 Changing the subject when the subject appears more than once U191</p> <p>Changing the subjects of formulae with two or more steps U181 Changing the subject when the subject appears more than once U191</p> <p>Trigonometry</p> <p>Understanding sin, cos, tan U605 Finding unknown sides in right-angled triangles U283 Finding unknown angles in right-angled triangles U545 Using the exact values of trigonometric ratios U627 Angles of elevation and depression* U967 Calculating with trigonometry and bearings* U164</p> <p>Constructions</p> <p>Constructing loci U820</p>	<p>Solving equations with two or more steps U325 Solving equations with the unknown on both sides U870 Constructing and solving equations U599</p> <p>Changing the subjects of formulae with one step U675 Solving equations with two or more steps U325 Solving equations with the unknown on both sides U870 Solving equations with the unknown in the denominator U505 Expanding and factorising brackets U179, U768, U365 Solving equations with two or more steps U325 Changing the subjects of formulae with two or more steps U181</p> <p>Angles in triangles U628 Measuring and drawing bearings U525</p> <p>Constructing bisectors of angles U787 Constructing perpendicular bisectors and lines U245</p>		
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<p>Spring 1</p>	<p>Straight Line Graphs Equations of parallel linesU377 Finding the equation of a straight line from its gradient and a pointU477 Finding the equation of a straight line from two points on the lineU848 Equations of parallel and perpendicular lines*U898 Plotting linear real-life graphsU652 Using and finding equations of linear real-life graphsU862 Sketch graphs of water flowsU896</p> <p>Venn Diagrams Venn diagrams with set notationU748 Using set notationU296</p> <p>Tree Diagrams Tree diagrams for independent eventsU558 Tree diagrams for dependent eventsU729</p> <p>Compound Measure Calculating with densityU910 Calculating with pressureU527</p> <p>Ratios and Algebra Combining ratiosU921 Calculating with ratios and algebraU676 Changing ratiosU865</p> <p>Graphs Calculating acceleration from velocity-time graphsU562 Plotting velocity-time graphsU937</p>	<p>Finding equations of straight line graphsU315 Interpreting equations of straight line graphsU669 Plotting straight line graphsU741 Finding equations of straight line graphsU315 Interpreting equations of straight line graphsU669</p> <p>Venn diagramsU476 Writing probabilities as fractions, decimals and percentagesU510 Multiplying fractionsU475 Writing probabilities as fractions, decimals and percentagesU510 SubstitutingU585, U144 Converting unitsU388, U468, U248 Solving equationsU325, U505 Changing the subjects of formulae with two or more stepsU181 Writing and simplifying ratiosU687 Using equivalent ratios to find unknown amountsU753 Sharing amounts in a given ratioU577 Converting between ratios, fractions and percentagesU176 Plotting distance-time graphsU403 Interpreting distance-time graphsU914 Calculating with speedU151 Calculating speed from distance-time graphsU462 Plotting distance-time graphs using speedsU966</p>	<p>Assessment week 1</p> <p>Scaled GCSE paper</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>
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	<p>Graphs of cubic functionsU980</p> <p>Graphs of reciprocal functionsU593</p> <p>Graphs of exponential functions*U229</p>	<p>Plotting graphs of quadratic functionsU989</p> <p>Interpreting graphs of quadratic functionsU667</p> <p>Graphs of exponential functions*U229</p>		
<p>Summer 1</p>	<p>Sequences</p> <p>Position-to-term rules for arithmetic sequencesU498</p> <p>Position-to-term rules for sequences of patternsU978</p> <p>Position-to-term rules for geometric sequencesU958</p> <p>Sampling</p> <p>Sampling and biasU162</p> <p>Proportion</p> <p>Interpreting direct proportion equationsU640</p> <p>Interpreting inverse proportion equationsU364</p> <p>Graphs of direct and inverse proportionU238</p> <p>Transformations</p> <p>Combining transformationsU766</p> <p>Error Intervals</p> <p>Finding error intervalsU657</p> <p>Finding error intervals for truncated numbersU301</p> <p>Indices</p> <p>Index rules with positive indicesU235</p> <p>Index rules with negative indicesU694</p> <p>Simplifying expressions using index lawsU662</p>	<p>Term-to-term rulesU213</p> <p>Substituting into position-to-term rulesU530</p> <p>Solving direct proportion word problemsU721</p> <p>Solving direct proportion word problemsU721</p> <p>Solving inverse proportion word problemsU357</p> <p>Graphs of reciprocal functionsU593</p> <p>TranslationU196</p> <p>ReflectionU799</p> <p>RotationU696</p> <p>Enlargement by a positive scale factorU519</p> <p>Rounding integersU480</p> <p>Rounding decimalsU298</p> <p>Rounding integers using significant figuresU731</p> <p>Rounding decimals using significant figuresU965</p> <p>Truncating decimalsU108</p> <p>Calculating with roots and powersU851</p>	<p>Assessment week 2 –</p> <p>Scaled GCSE paper</p> <p>Sparx Maths Curriculum - View the Curriculum</p>	<p>Resource - AMSP</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>

	<p>Brackets Expanding double bracketsU768 Factorising quadratic expressions of the form $x^2+bx+c=0$U178 Factorising the difference of two squaresU963 Factorising to solve quadratic equations of the form $x^2+bx+c=0$U228</p> <p>Handling data Interpreting frequency tables with grouped dataU312 Finding averages from grouped dataU877 Drawing stem-and-leaf diagramsU200 Interpreting stem-and-leaf diagramsU909 Drawing line graphsU590 Interpreting line graphsU193 Drawing and interpreting frequency polygonsU840</p>	<p>Simplifying fractionsU646</p> <p>Using algebraic notationU613</p> <p>Simplifying expressions by collecting like termsU105</p> <p>Finding the highest common factorU529</p> <p>Expanding single bracketsU179</p> <p>Factorising into one bracketU365</p> <p>Interpreting frequency tables and two-way tablesU981</p> <p>Finding averages from frequency tablesU569</p> <p>Reading and plotting coordinatesU789</p> <p>Drawing bar chartsU363</p> <p>Interpreting bar chartsU557</p>		
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