



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 stepsU181 Changing the subject when the subject appears more than onceU191</p> <p>Changing the subjects of formulae with two or more stepsU181 Changing the subject when the subject appears more than onceU191</p> <p>Trigonometry</p> <p>Understanding sin, cos, tanU605 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 depression*U967 Calculating with trigonometry and bearings*U164</p> <p>Constructions</p> <p>Constructing lociU820</p>	<p>Solving equations with two or more stepsU325 Solving equations with the unknown on both sidesU870 Constructing and solving equationsU599</p> <p>Changing the subjects of formulae with one stepU675 Solving equations with two or more stepsU325 Solving equations with the unknown on both sidesU870 Solving equations with the unknown in the denominatorU505 Expanding and factorising bracketsU179, U768, U365 Solving equations with two or more stepsU325 Changing the subjects of formulae with two or more stepsU181</p> <p>Angles in trianglesU628 Measuring and drawing bearingsU525</p> <p>Constructing bisectors of anglesU787 Constructing perpendicular bisectors and linesU245</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>Sum mer 1</p>	<p>Sequences</p> <p>Position-to-term rules for quadratic sequencesU206</p> <p>Position-to-term rules for geometric sequencesU958</p> <p>Special sequencesU680</p> <p>Sampling</p> <p>Sampling and biasU162</p> <p>Capture-recaptureU328</p> <p>Proportion</p> <p>Constructing direct proportion equationsU407</p> <p>Constructing inverse proportion equationsU138</p> <p>Graphs of direct and inverse proportionU238</p> <p>Transformations</p> <p>Enlargement by a positive or negative scale factorU134</p> <p>Combining transformationsU766</p> <p>Bounds</p> <p>Finding bounds for calculationsU587</p>	<p>Term-to-term rulesU213</p> <p>Substituting into position-to-term rulesU530</p> <p>Position-to-term rules for arithmetic sequencesU498</p> <p>Position-to-term rules for sequences of patternsU978</p> <p>Solving direct proportion word problemsU721</p> <p>Solving inverse proportion word problemsU357</p> <p>Currency conversionU610</p> <p>Constructing and solving equationsU599</p> <p>Graphs of reciprocal functionsU593</p> <p>TranslationU196</p> <p>ReflectionU799</p> <p>RotationU696</p> <p>Finding error intervalsU657</p> <p>Finding error intervals for truncated numbersU301</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>Indices Estimating roots and powersU299 Indices of the form $1/a$U985 Indices of the form a/bU772</p> <p>Recurring decimals Converting fractions to recurring decimalsU550 Converting recurring decimals to fractionsU689</p> <p>Brackets Expanding triple bracketsU606 Completing the squareU397 Factorising quadratic expressions of the form ax^2+bx+cU858 Finding the turning point of a quadratic graph by completing the squareU769</p> <p>Data Handling Drawing cumulative frequency graphsU182 Interpreting cumulative frequency graphsU642 Drawing box plotsU879 Interpreting box plotsU837 Comparing populations using box plots and cumulative frequency graphsU507</p>	<p>Ca Calculating with roots and powersU851 Index rules with positive indicesU235 Index rules with negative indicesU694</p> <p>Using a written method to divide with decimalsU868 Solving equations with two or more stepsU325</p> <p>Expanding double bracketsU768 Factorising quadratic expressions of the form x^2+bx+cU178 Factorising the difference of two squaresU963 Factorising to solve quadratic equations of the form $x^2+bx+c=0$U228 Interpreting frequency tables with grouped dataU312</p> <p>Calculating the medianU456 Finding the modeU260</p>		
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