BRISTOL CATHEDRAL CHOIR SCHOOL

Gathered together, that all may thrive

Programme Of Study, updated Dec' 2020

MATHEMATICS

KS3 Y7	sequences	Algebraic notation	Equality and equivalence	Place value	Fraction, decimal, percentages	Addition, subtraction	Multiplication and division	Directed numbers	Adding, subtraction fractions.	Construction, measuring and reasoning geometry	Numbers sense, sets and probability	Prime number and proof.
	Progress test			Progress test		Progress test		Progress test		Progress test	Progress test	
KS3 Y8	Powers of 10, rounding, estimation.	Expressions, algebraic fractions, linear equations.	Polygons, circles, 2D shapes.	Factors, multiples, factors, primes, 4 operations of fractions.	Collecting, working with and representing data.	Reflections, rotations, translations, enlargements, scale drawings.	Trial & improvement, algebraic methods, formulae, expressions, Sequences, linear functions, real life graphs.		Fractions, percentages, ratio, mental written and calculator methods,	Constructions, loci, 3D shapes.	Statistical investigation, interpreting, communicating findings, probability, experiments.	Pythagoras, measures, prisms, cylinders.
	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test		Progress test	Progress test	Progress test	Progress test
KS4 Y9 Foundation	Integers and place value	Indices, powers and roots; factors, multiples and primes	Algebra: the basics; expanding and factorising single brackets; expressions and substitution into formulae			Tables; charts and graphs; pie charts; scatter graphs		Fractions; fractions, decimals and percentages; percentages		Equations and inequalities, Sequences		
	Progress test	Progress test	Progress test			Progress test		Progress test		Progress test		
	Synoptic test.					Synoptic test.						
KS4 Y9 Higher	Integers and place value Place value, combinations, estimating,		Algebraic indices, expanding and factorising, equations, formulae, linear			Averages and range, collecting data, representing data		Fractions, percentages, ratio and proportion		Polygons, angles and	Pythagoras' Theorem and trigonometry	

	HCF and LCM, indices, powers of 10 and standard form, surds	and non-linear sequences						parallel lines			
	Progress test	Progress test		Progress test		Progress test		Progress test			
	Synoptic test.			Synoptic test.							
KS4 Y10 Foundation	Properties of shapes, parallel lines and angle facts; interior and exterior angles of polygons	Statistics and sampling; the averages	Perimeter and area; 3D forms and volume	Real-life graphs; straight-line graphs	Transformations	Ratio; proportion	Right-angled triangles: Pythagoras and trigonometry	Probability	Multiplicative reasoning		
	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test		
	Synoptic test.			Synoptic test.			Synoptic test.				
KS4 Y10 Higher	Graphs: the basics and real-life graphs; linear graphs and coordinate geometry	Quadratic, cubic and other graphs	Perimeter, area and volume, prisms, circles, cylinders/spheres/cones, accuracy and bounds	Transformations; Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings	Algebra: Solving quadratic equations and inequalities, solving simultaneous equations algebraically	Probability	Multiplicative reasoning: growth and decay, compound measures, ratio and proportion	Similarity and congruence in 2D and 3D	Further trigonometry, trigonometry/Pythagoras' in 3D, trig graphs, transforming graphs, further accuracy	Statistics and sampling, cumulative frequency and histograms	
	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test	
	Synoptic test.				Synoptic test.			Synoptic test.			
KS4 Y11 Foundation	Plans and elevations; constructio	Quadratic equations; expanding, factorising and graphing	Circles, cylinders,	Fractions and reciprocals;	Similarity and congruence in 2D; vectors.	Rearranging equations, graphs of cubic and	Revision/Mocks etc				

	n, loci and bearings		cones and spheres	indices and standard form.		reciprocal functions and simultaneous equations.						
	Progress test	Progress test	Progress test	Progress test	Progress test	Progress test						
	Synoptic test.			Synoptic test.								
KS4 Y11 Higher	Quadratics, expanding cubics, sketching graphs, graphs of circles, cubes and quadratics	Circle theorems and circle geometry	Rearranging formulae, algebraic fractions, equations with algebraic fractions, rationalising surds, proof	Vectors and geometric proof	Direct and inverse proportion, exponential functions, non-linear graphs, transforming graphs	Revision/Mocks etc						
	Progress test	Progress test	Progress test	Progress test	Progress test							
	Synoptic test.			Synoptic test.								
KS5 Y12 Term 1	Problem Solving	Quadratic functions	Equations and Inequalities	Surds and Indices	Trigonometry	Graphs and Transformation	Polynomials (AS)	Vectors (AS)	Vectors (AS)	Kinematics (AS)	Coordinate geometry (AS)	Exponentials and logarithms (AS)
	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment	HW Assessment
	End of HT Test						End of HT Test					
KS5 Y12 Term 2	Forces and Newton's laws of motion (AS)	Differentiation (AS)	Data collection (AS)	Data processing, presentation and interpretation (AS)	Probability (AS)		Integration	Variable Acceleration (AS)	The binomial distribution (AS)	Statistical hypothesis testing using the binomial distribution (AS)		

	End of HT Test			End of Half Term Test				
KS5 Y12 Yerm 3	Revision for End of Year Exam	End of Year Exam & detailed feedback time	Large Data Set Project	Begin Y13 POS - Mechanics - Kinematics, Projectiles, Forces, Friction				

	End of HT Test					End of HT Test	
KS5 Y13 Term 2	Probability	Statistical Distributions	Statistical Hypothesis Testing	Parametric Equations	Vectors	Numerical Methods	Revision of AS Work
	End of HT Test						

KS5 Y13 term 3	Revision for A Level work	Exam Period