Maths

Key Stage 4 Sequence of Learning

Foundation Tier

Cantell SCHOOL

Your child will study

Year 10

Autumn Term	UNIT 1 a, b c and d: Number, powers, decimals, HCF and LCM, roots and rounding
	UNIT 2: Expressions, substituting into simple formulae, expanding and factorising
	UNIT 3: Drawing and interpreting graphs, tables and charts
	UNIT 4: Fractions and percentages
Spring Term	UNIT 5: Equations, inequalities and sequences
	UNIT 6: Angles, polygons and parallel lines
	UNIT 7: Statistics, sampling and the averages
	UNIT 8: Perimeter, area and volume
Summer Term	UNIT 9: Real-life and algebraic linear graphs
	UNIT 10: Transformations
	UNIT 11: Ratio and Proportion
	UNIT 12: Right-angled triangles: Pythagoras and trigonometry
	UNIT 13: Probability

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Year 11

Autumn Term	UNIT 14: Multiplicative reasoning: more percentages, rates of change, compound measures
	UNIT 15: Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings
	UNIT 16: Algebra: quadratic equations and graphs
	UNIT 17: Perimeter, area and volume 2: circles, cylinders, cones and spheres
	UNIT 18: More fractions, reciprocals, standard form, zero and negative indices
Spring Term	UNIT 19: Congruence, similarity and vectors
	UNIT 20: Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations
	Revision
Summer Term	Revision Masterclasses Exams

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Year 10

Autumn Term	UNIT 1: Powers, decimals, HCF and LCM, positive and negative, roots, rounding, reciprocals, standard form, indices and surds
	UNIT 2: Expressions, substituting into simple formulae, expanding and factorising, equations, sequences and inequalities, simple proof
	UNIT 3: Averages and range, collecting data, representing data
	UNIT 4: Fractions, percentages, ratio and proportion
Spring Term	UNIT 5: Angles, polygons, parallel lines; Right-angled triangles: Pythagoras and trigonometry
	UNIT 6: Real-life and algebraic linear graphs, quadratic and cubic graphs, the equation of a circle, plus rates of change and area under graphs made from straight lines
	UNIT 7: Perimeter, area and volume, plane shapes and prisms, circles, cylinders, spheres, cones; Accuracy and bounds
Summer Term	UNIT 8: Transformations; Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings
	UNIT 9: Algebra: Solving quadratic equations and inequalities, solving simultaneous equations algebraically
	UNIT 10: Probability

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Year 11

Autumn Term	UNIT 11: Multiplicative reasoning: direct and inverse proportion, relating to graph form for direct, compound measures, repeated proportional change
	UNIT 12: Similarity and congruence in 2D and 3D
	UNIT 13: Sine and cosine rules, ab sin C, trigonometry and Pythagoras' Theorem in 3D, trigonometric graphs, and accuracy and bounds
	UNIT 14: Statistics and sampling, cumulative frequency and histograms
	UNIT 15: Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics
	UNIT 16: Circle theorems and circle geometry
Spring Term	UNIT 17: Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof
	UNIT 18: Vectors and geometric proof
	UNIT 19: Direct and indirect proportion: using statements of proportionality, reciprocal and exponential graphs, rates of change in graphs, functions, transformations of graphs
Summer Term	Revision
Masterclasses
Exams