Maths	AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
	Topics	Topics	Topics	Topics	Topics	Topics
YEAR 7	Problem solving/number work Algebra simplifying, sub, solving	Factors, multiples and powers Set notation Sequences	Problem solving with fractions Perimeter, area and volume Shape properties	Handling Data MMM Angle facts parallel lines	Forming and solving equations Graphs of straight lines Probability	Constructions and scale drawings, elevation and depression and bearings
YEAR 8	Solving equations with fractions Linear Inequalities Decimal problems and rounding Area and circumference of a circle	Sectors SA and Volume of prisms Density Percentage increase and decrease	Equation of straight line, y = mx + c Transformations	Ratio problems Averages from tables Indices +,-	Pythagoras theorem Simultaneous equations	Graphical solutions to sim eqns Plotting quadratic graphs Tree diagrams
YEAR 9	Fractional indices and standard form Simple quadratic inequalities Scatter graphs Compound measures Bounds of numbers	Probability mut. Excl and indep. Percentage problems (incl reverse) Expanding 2 brackets	Factorising quadratics Solving by factorising Trial and error Cumulative frequency Box plots	Sequences, nth terms Plotting graphs of quadratic, cubic and reciprocal functions Similarity	Trigonometry Volume of pyramids and cones Geometry and proof	Loci Statistical calculations and diagrams (histograms)
YEAR 10	Rational numbers Surds Solving quadratic equations (all methods)	Using graphs to solve equations Probability, venn and tree diagams Multiplication principle Indices and standard form revision	HCF and LCM revision Coordinate Geometry Sampling methods	Algebraic fractions Changing the subject Simultaneous equations (linear and quadratic) Geometric sequences and recurrence relation)	Quadratic inequalities Graphs of functions, tangents and area	Algebraic proof Ratio
YEAR 11	Direct and inverse proportion 3D trigonometry Congruency and similarity	Sine and cosine rules Area of triangle Segments of circles Volume and SA (all) Loci revision	Circle theorems Functions Sketching graphs	Graph transformations Vectors Iteration Level 2 FM differentiation	Problem solving Revision Level 2 FM matrices	

YEAR 12	Surds Quadratic functions and graphs Sim eqns Factor theorem Inequalities Graph sketching Coordinate geometry	Binomial expansion Indices Differentiation Trigonometry	Integration Proof Exponentials and logs	Sampling methods Summary statistics and statistical diagrams Vectors in 2D Suvat equations and graphs	Correlation Probability Discrete random variables Forces	Binomial distribution F=Ma and connected particles Sequences
FM	**Year 12 Pure** plus • change of base for logs • radians • addition and double angle formulae • differentiation of sin and cos, and chain rule	**Year 12 Pure** **Further Pure** Complex Numbers Roots of Polynomials Polar coordinates Hyperbolic Functions Matrices & Transformations Ellipse, Hyperbola & Parabola	**Further Pure** Rational Functions & Inequalities Further Calculus Proof by induction Series (excluding McLaurin) Further vectors	**Year 12 Statistics** plus hypothesis testing **Year 12 Mechanics**	**Further Statistics** Discrete random variables Continuous random variables Poisson distribution incl. hypothesis testing **Further Mechanics** Work, energy & power Momentum and collisions Dimensional Analysis	**Further Statistics** Contingency tables and Yates' Correction **Further Mechanics** Circular motion (excluding horizontal in 3D) Work, energy & power 2 Collisions 2 **Year 13 Pure** Sequences & series Functions Further differentiation
Core Maths	Fermi Estimation	Sampling and statistical techniques	Bodmas Percentages (VAT interest rates)	Income tax and NI Budgets	Student loans mortgages	Project work to consolidate and recap stats work
YEAR 13	Sequences Functions Partial fractions Binomial expansions Radians Trigonometry Differentiation	Numerical methods Integration	Proof Parametric equations Differential Equations	Normal distribution Resolving forces to components Statics	Hypothesis testing Dynamics Moments Projectiles Vectors in 3D	

FM	**Pure** Further transformation of graphs Partial fractions Binomial expansions Trigonometry Numerical methods Further integration Proof Parametric equations Differential equations Vectors in 3D	**Statistics** Normal distribution Further hypothesis testing **Mechanics** Equilibrium and resolving Moments Projectiles **Further Pure** Complex numbers Conic transformations Hyperbolics Further graphs and inequalities Further vectors	**Further Statistics** Continuous random variables Exponential distribution **Further Pure** Further calculus Maclaurin series and limits Matrices Polar coordinates	**Further Statistics** Type I and II errors Inference t-distribution Confidence intervals **Further Pure** Differential equations Simple harmonic motion and damped differential equations Numerical methods **Further Mechanics** Circular motion Centres of mass Moments and couples Work, energy & power	Finishing off Revision	
Core Maths	Correlation and regression	The Normal Distribution Exchange rates	Estimators and Confidence intervals	Critical analysis	Using preliminary materials	