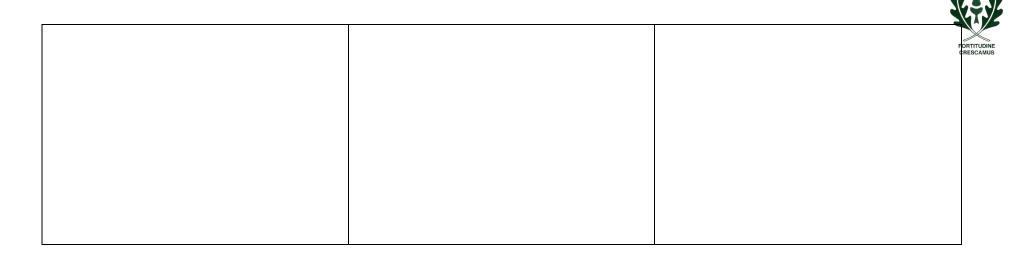
## **Curriculum Overview – MATHEMATICS**



#### Key Stage 3

Year 7	Year 8	Year 9
Two-way tables, bar charts.	Unique Factorisation Theorem.	Reciprocals & indices laws.
Mean, median, mode, range.	Basic index laws.	Standard form calculations.
Grouped data.	Powers of 10.	Surds.
Line graphs & pie charts.	Significant figures (rounding).	Quadratic sequences.
Scatter graphs & correlation.	Simplify algebraic expressions.	Factorising quadratic expressions.
Primes, factors, & multiples.	Substitution.	Quadratic equations.
Integer arithmetic.	Solving equations.	1D linear inequalities.
Squaring, cubing, & rooting.	Plans & elevations.	Solving equations.
Operation priority (BIDMAS).	Volume & surface area of prisms.	Using & writing formulae.
Estimation.	Calculate circumference.	Collecting data.
Algebraic expressions.	Calculate circle area.	Presenting & comparing data.
Formulae.	Gougu Theorem.	Box plots.
Factorising.	Direct proportion.	Cumulative frequency graphs.
Fraction arithmetic.	Misleading & financial graphs.	Histograms.
Relating fractions, decimals, & %.	Distance-time graphs.	Direct & inverse proportion.
Angles between lines.	Rates of change.	Arcs & sectors.
Angle properties of polygons.	Enlargement & reflection.	Non-linear graphs.
Decimal arithmetic.	Rotation & translation.	Density & pressure.
Ordering / rounding decimals.	Combining the 4 transformations.	Upper & lower bounds.
Changing by a percentage.	Scale factor and area / volume.	Solving simultaneous equations.
Writing / solving linear equations.	Recurring decimals.	2D linear inequalities.
Solving equations numerically.	Reverse percentages.	Basic trigonometry.
Triangles & parallelograms.	Repeating percentage changes.	Trigonometric graphs.
Trapezium area.	Accurate drawings.	Al-Kashi's Theorem.
Properties of 3D solids.	Ruler & compass constructions.	Investigation & proof.
Volume & surface area.	Loci.	
Measurement units.	Mutually exclusive events.	
Using / writing ratios.	Estimating probability.	
Proportional reasoning.	Experimental probability.	
Arithmetic & geometric sequences.	Probability diagrams.	
Term-to-term formulae.	Maps and bearings.	
Position-to-term formulae.	Similarity.	
Coordinates & line segments.	Equation of a linear graphs.	
Linear graphs.	Parallel & perpendicular lines.	
Tessellations.	Inverse functions.	
Number bases.	Non-linear graphs.	



**Textbooks Used:** New National Framework Mathematics

ISBN: 978-0-7487-6752-6 (**Year 7**), 0-7487-6754-1 (**Year 8**), 0-7487-6756-8 (**Year 9**)

#### Key Stage 4



#### GCSE Exam Board: EDEXCEL Mathematics (8300)

Year 10	Year 11
Number (HCF, LCM, Index Laws, Standard Form, Surds)	All Sets:
Algebra (Expanding and Factorising, Sequences)	Circle Theorems
Interpreting and Representing Data	Further Algebra
Fractions Ratio and Percentages	Vectors
Angles and Trigonometry	Proportionality and Graph Transformations
Graphs	Additional Qualifications
Area and Volume	Set 1: Level 3 OCR FSMQ
Transformation and Constructions	Set 2-3: Level 2 AQA Further Maths
Equations and Inequalities	Set 4: GCSE Statistics EDEXCEL
Probability	
Multiplicative Reasoning	
Similarity and Congruence	
Further Trigonometry	
Further Statistics	
Equations and Graphs	

**Textbook Used:** CGP Maths for GCSE - Higher (for the Grade 9-1 Course) ISBN: 9781782944379

### Key Stage 5

# FORTITUDINE

#### A Level Exam Board: EDEXCEL

Y 12	Year 13
Algebraic Expressions	Algebraic Fractions
Quadratics	Sequences and Series
Simultaneous Equations and Inequalities	Binomial Expansion – Year 2
Graphs and Transformations	Trigonometric Identities
Straight Lines	Radians
Circles	Differentiation – Year 2
Alebraic Methods	Integration – Year 2
Binomial Expansion	Numerical Methods
Trigonometry	Vectors
Differentiation	
Integration	
Vectors	
Exponentials and Logarithms	
Data Collection	
Measures of Location and Spread	
Representations of Data	
Correlation	
Probability	
Statistical Distributions	
Constant Acceleration	
Forces and Motion	
Variable Acceleration	
Conditional Probability	
Normal Distributions	

		2
Projectiles	FORTITUDIN	-
Friction	CRESCAMUS	3

Textbook Used: CGP Mathematics for A-level 978178294723 3