



Curriculum overview Mathematics

NORTHGATE
High School

Key Stage 3

Year	Autumn Term	Spring Term	Summer Term
7	<p><i>Number</i></p> <ul style="list-style-type: none"> • Four Operations • Multiples, Factors and Primes • Place value • Rounding • Negative Numbers <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Sequences • Coordinates <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Symmetry • Perimeter and Area 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Powers and Roots • Order of Operations • Fractions • Ratio <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Simplifying Expressions • Substitution • Conversions • Conversion Graphs <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Angles <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Comparing Distributions • Averages • Reading and Interpreting Charts and Graphs 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Ordering • Fractions, Decimals and Percentages <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Brackets • Inequalities <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • 3D shapes • Volume and Surface Area • Transformations <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Probability • Scattergraphs • Venn Diagrams
8	<p><i>Number</i></p> <ul style="list-style-type: none"> • Written and Mental Methods • Negative Numbers • Decimals • Standard Form • Rounding • Indices • Prime Factorisation 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Fractions • Percentages and Percentage Change • Fractions, Decimals and Percentages <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Sequences and nth term 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Ratio and Proportion • Calculator Methods • Order of Operations • Estimation <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Real Life Graphs

	<p><i>Algebra</i></p> <ul style="list-style-type: none"> • Simplifying • Substitution • Coordinates and Straight-line Graphs <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Angle Facts • Classifying Shapes • Metric Conversions <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Averages from Tabulated Data • Probability 	<ul style="list-style-type: none"> • Solving Linear Equations <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Area and Perimeter of 2D shapes • Nets • Plans and Elevations 	<p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Transformations of 2D shapes • Maps and Scale Drawings • Accurate Drawing and Construction • Loci <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Statistical Diagrams • Correlation • Grouped data • Time Series
9	<p><i>Number</i></p> <ul style="list-style-type: none"> • Number Properties • Indices • Inequalities • Standard Form Calculations <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Expressions • Substitution • Brackets and Factorising • Coordinates <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Area • Circle Properties • Angles in Polygons • Construction • Pythagoras' Theorem <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Averages and Comparing Data 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Fractions and Reciprocals • Percentages and Percentage Change • Recurring Decimals to Fractions <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Equation of a Straight Line • Solving Equations and Inequalities <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Compound Measures • Scale Drawings • Loci • Congruence • Transformations • Scale, Area and Volume Factors 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Errors and Bounds • Ratio and Proportion <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Sequences <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Nets, Surface Area and Volume • Trigonometry <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Representing Data • Two-Way Tables • Probability

Key Stage 4 course outline

GCSE Mathematics OCR J560

Year	Autumn Term	Spring Term	Summer Term
10	<p><i>Number</i></p> <ul style="list-style-type: none"> • Indices • Standard Form • Fractions • Percentages • Exponential Growth and Decay <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Manipulating expressions • Linear Equations • Straight Line Graphs • Equations of Circles (Higher Only) <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Pythagoras' Theorem • Trigonometry (Higher Only) • Angle Facts and Proof • Symmetry 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Ratio and Proportion • Rounding, Estimation and Bounds • Whole Number Theory <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Quadratics • Inequalities <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none"> • Transformations • Circle Theorems (Higher Only) • Area • Circle Area and Circumference <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Summary Statistics • Probability 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Fractions, Decimals and Percentages <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Real Life Graphs • Kinematics • Simultaneous Equations • Sequences <p><i>Shape, Space and Measure</i></p> <ul style="list-style-type: none"> • Units of Measure • Construction and Loci • Plans and Elevations • Angle Facts <p><i>Data Handling</i></p> <ul style="list-style-type: none"> • Probability • Correlation
11	<p><i>Number</i></p> <ul style="list-style-type: none"> • Surds and Exact Values • Direct and Inverse Proportion <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Completing the Square (Higher only) • Sketching Functions (Higher only) • Trigonometry <p><i>Shape, Space and Measure</i></p> <ul style="list-style-type: none"> • Surface Area and Volume 	<p><i>Number</i></p> <ul style="list-style-type: none"> • Iteration (Higher only) • Order of Operations <p><i>Algebra</i></p> <ul style="list-style-type: none"> • Graph Transformations (Higher Only) • Interpreting Straight Line Graphs • Functions and Inverse Operations • Proof • Exponential Functions (Higher Only) 	Revision and exam technique

	<ul style="list-style-type: none">• Congruence and Similarity <p><i>Data Handling</i></p> <ul style="list-style-type: none">• Sampling and Data• Representing Data• Venn Diagrams	<ul style="list-style-type: none">• Inequalities in Two Variables (Higher Only) <p><i>Shape, Space and Measures</i></p> <ul style="list-style-type: none">• Vectors• Properties of Polygons and Circles	
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