

Mathematics Curriculum 2018-19

	Autumn 2018		Spring 2019	Summer 2019
Yr 7	Delta 1 (Higher)	Mean, mode, median and range Analysing and displaying data Negative numbers Primes, factors and multiples Order of operations Squares, cubes and roots Simplifying algebraic expressions Substitution Fractions, decimals and percentages Calculating with fractions	Angle properties 2D shapes Rounding Decimals Percentages Units of Measure Solving equations Substitution Rearranging equations Trial and improvement	Ratio and proportion Units of measure Perimeter and area Nets of 3D shapes Volume and surface area of cuboids Unit conversion Area and volume unit conversions Sequences Coordinates Linear graphs
	Theta 1 (Mid)	Mean, mode, median and range Analysing and displaying data Order of operations Rounding Adding, subtracting, multiplying and dividing	Fractions Fractions, decimals and percentages Percentages Probability Ratio and proportion	Angle properties Properties of 2D shapes Sequences Coordinates in all four quadrants Straight line graphs Transformations

	<p>Primes, factors and multiples</p> <p>Squares, cubes and roots</p> <p>Estimation</p> <p>Simplifying algebraic expressions</p> <p>Substitution</p> <p>Decimals</p> <p>Coordinates</p> <p>Perimeter and area</p>		
<p>Pi 1</p> <p>(Lower)</p>	<p>Mean, mode, median and range</p> <p>Analysing and displaying data</p> <p>Place value</p> <p>Order of operations</p> <p>Addition and subtraction</p> <p>Squares numbers</p> <p>Rounding to the nearest 10</p> <p>Multiplying and dividing by 10, 100 and 1000</p> <p>Ratio and proportion</p> <p>Simplifying algebraic expressions</p> <p>Substitution</p> <p>Coordinates</p>	<p>Order of operations</p> <p>Calculator skills</p> <p>Multiplication and division</p> <p>Primes, factors and multiples</p> <p>Units of measure</p> <p>Decimals</p> <p>Rounding to the nearest 10, 100, 1000</p> <p>Basic angle properties</p> <p>Parallel and perpendicular lines</p>	<p>Metric units</p> <p>Area and perimeter</p> <p>Properties of 2D shapes</p> <p>Line and rotational symmetry</p> <p>Fractions</p> <p>Improper fractions and mixed numbers</p> <p>Percentages</p> <p>Reflection, translation and rotation</p>

		Real life graphs		
Yr 8	Delta 2 (Higher)	Prime factorisation Index laws Powers of 10 Order of operations Rounding (significant figures) Simplifying expressions Substitution Forming and solving equations Plans and elevations Area and circumference of circles Volume and surface area Pythagoras' Theorem Direct proportion Straight line graphs Real life graphs	Symmetry Transformations Area and volume of enlarged shapes Recurring decimals Percentage change Constructions Nets of 3D shapes Loci	Basic probability Experimental probability Probability tree diagrams Scale diagrams Bearings Congruency and similarity Straight line graphs Parallel and perpendicular lines Direct and inverse proportion
	Theta 2 (Mid)	Negative numbers Squares, cubes and roots Prime factorisation Area Volume and surface area of cubes	Conversion graphs Time distance graphs Real life graphs Calculating with decimals	Calculating with fractions and mixed numbers Reciprocals Gradient Equations of straight line graphs

	<p>and cuboids</p> <p>Metric to imperial conversions</p> <p>Mean from a frequency table</p> <p>Pie charts</p> <p>Complex two way tables</p> <p>Scatter graphs</p> <p>Stem and leaf diagrams</p> <p>Forming and solving linear equations</p> <p>Substitution</p> <p>Simplify and manipulate algebraic expressions</p>	<p>Ratio</p> <p>Rounding to an appropriate degree of accuracy</p> <p>Properties of quadrilaterals</p> <p>Alternate and corresponding angles</p> <p>Interior and exterior angles of polygons</p>	<p>Direct proportion</p> <p>Fractions, decimals and percentage</p> <p>Percentage change</p>
<p>Pi 2 (Lower)</p>	<p>Addition and subtraction</p> <p>Multiplication (TU x TU and HTU x TU)</p> <p>Negative numbers</p> <p>Ratio</p> <p>Simple direct proportion</p> <p>Properties of 3D shapes</p> <p>Nets of 3D shapes</p> <p>Volume and surface area of cubes and cuboids</p>	<p>Calculating with decimals</p> <p>Dividing in to a ratio</p> <p>Angle properties</p> <p>Constructing triangles</p> <p>Constructing nets of 3D shapes</p> <p>Pythagoras' theorem</p> <p>Squares and roots</p> <p>Primes, factors and multiple</p> <p>Using a calculator</p>	<p>Sequences</p> <p>Fractions</p> <p>Percentages</p> <p>Basic probability</p> <p>Experimental probability</p>

		<p>Units of measure</p> <p>Data collection</p> <p>Frequency tables, bar charts and pie charts</p> <p>Simplifying algebraic expression</p> <p>Solving simple equations</p>		
Yr 9	Delta 3 (Higher)	<p>Laws of indices (inc. negative and fractional)</p> <p>Standard form</p> <p>Surds</p> <p>Sequences including quadratic sequences</p> <p>Simplify and manipulate quadratic expressions</p> <p>Solving equations and inequalities</p> <p>Changing the subject of a formula</p> <p>Algebraic fractions</p> <p>Collecting data</p> <p>Stem and leaf diagrams</p> <p>Frequency polygons</p> <p>Estimating the mean</p> <p>Cumulative frequency</p>	<p>Direct and inverse proportion</p> <p>Arc length and area of sectors</p> <p>Quadratic graphs</p> <p>Solving quadratic equations</p> <p>Non-linear graphs</p> <p>Compound measure conversion</p> <p>Rates of change</p> <p>Upper and lower bounds</p>	<p>Simultaneous equations</p> <p>Linear functions</p> <p>Graphing inequalities</p> <p>Modelling real life situations</p> <p>Similar triangles</p> <p>Trigonometry in right angled triangles</p> <p>3D Pythagoras' theorem</p> <p>Use known results to obtain simple proofs</p>

		Histograms		
Theta 3 (Mid)	<p>Laws of indices</p> <p>Square roots and cube roots</p> <p>Estimate calculations and using BIDMAS</p> <p>Standard form conversion</p> <p>Substitution</p> <p>Simplifying expressions</p> <p>Changing the subject of a formula</p> <p>Algebraic fractions</p> <p>Collecting data</p> <p>Representing and interpreting data (inc. pie charts, frequency polygons and tables)</p> <p>Enlargement</p> <p>Rounding to significant figures</p> <p>Compound measures</p> <p>Percentage change</p>	<p>Alternate and corresponding angles</p> <p>Plans and elevations</p> <p>Maps and scale drawings</p> <p>Constructions</p> <p>Constructing nets</p> <p>Loci</p> <p>Construct and solve equations</p> <p>Solve inequalities</p> <p>Simultaneous equations</p> <p>Trial and improvement</p> <p>Area and circumference of circles</p> <p>Pythagoras' theorem</p> <p>Percentage error</p> <p>Upper and lower bounds</p>	<p>Generating linear and quadratic sequences</p> <p>Gradient and intercept</p> <p>Distance-time graphs</p> <p>Two way tables</p> <p>Probability including probability notation</p> <p>Estimates of probability</p> <p>Listing combinations systematically</p> <p>Probability tree diagrams</p> <p>Similarity and congruence</p> <p>Trigonometry in right angled triangle</p>	

Pi 3 (Lower)	Calculating with integers and decimals	Alternate and corresponding angles	Perimeter and area
	Negative numbers	Interior and exterior angles	Substitution
	Squares, cubes and roots	Maps and plans	Area and circumference of circles
	Laws of indices	Constructions	Changing the subject of a one-step formula
	Prime factor decomposition	Plans and elevations	Probability
	Constructing and simplifying expressions	Volume of shapes made from cuboids	Probability tree diagrams
	Sequences	Pythagoras' theorem	Transformations
	Solving equations	Simplifying and dividing in to a ratio	Coordinates (four quadrants)
	Collecting data	Direct proportion	Properties of triangles and quadrilaterals
	Averages and frequency tables	Units of measure	
	Pie charts and scatter graphs		
	Fraction, decimal and percentage		
	Calculating with fractions and mixed numbers		
	Percentage change		

Yr 10	GCSE Mathematics Edexcel 1MA1 (Foundation)		
	Unit 1 Number	Unit 6 Angles	Unit 11 Ratio and proportion
	Unit 2 Algebra	Unit 7 Averages and range	Unit 12 Right-angled triangles
	Unit 3 Graphs, tables and charts	Unit 8 Perimeter, area and volume 1	Unit 13 Probability

	Unit 4 Fractions and percentages Unit 5 Equations, inequalities and sequences	Unit 9 Graphs Unit 10 Transformations	Unit 14 Multiplicative reasoning Unit 15 Constructions, loci and bearings
	GCSE Mathematics Edexcel 1MA1 (Higher)		
	Unit 1 Number Unit 2 Algebra Unit 3 Interpreting and representing data Unit 4 Fractions, ratio and proportion Unit 5 Angles and trigonometry	Unit 6 Graphs Unit 7 Area and volume Unit 8 Transformation and constructions Unit 9 Equations and inequalities Unit 10 Probability	Unit 11 Multiplicative reasoning Unit 12 Similarly and congruence Unit 13 More trigonometry Unit 14 Further statistics Unit 15 Equations and graphs
Yr 11	GCSE Mathematics Edexcel 1MA1 (Foundation)		
	Unit 16 Quadratic equations and graphs Unit 17 Perimeter, area and volume 2 Unit 18 Fractions, indices and standard form Unit 19 Congruence, similarity and vectors Unit 20 More algebra	Revisiting topics	Revision
	GCSE Mathematics Edexcel 1MA1 (Higher)		
	Unit 16 Circle theorems Unit 17 More algebra Unit 18 Vectors and geometric proof	Revisiting topics	Revision

Unit 19 Proportion and graphs

AS Level Mathematics (AQA)

Yr 12

Pure Mathematics

Statistics

Mechanics

Pure Mathematics

Statistics

Mechanics

Revision

A2 Level Mathematics (AQA)

Yr 13

Core 3

Mechanics 1 or Statistics 1

Core 4

Mechanics 1 or Statistics 1

Revision