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|  | **YEAR 7** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **1 Analysing and displaying data** | **2 Number skills** |
|  | Mode, media and range, displaying data, grouping data, comparing data, line graphs | Mental maths, addition and subtraction, multiplication, division, negative numbers, factors multiples and primes, square numbers |
| *PRIOR LEARNING* | *NC 2013 KS2 Statistics* | *NC 2013 KS2 Number* |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **3 Expressions & functions** | **4 Decimals and measures** |
|  | Functions, simplying expressions, writing expressions, writing formulae, substituting | Decimals and rounding, working with decimals, length mass and capacity, perimeter and area |
| *PRIOR LEARNING* | *NC 2013 KS2 Algebra* | *NC 2013 KS2 Number/measurement* |
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|  | **SPRING TERM 1** | |
| TOPIC | **5 Fractions** | **6 Probability** |
|  | Comparing fractions, simplifying fractions, fractions and decimals, understanding percentages and percentages of amounts | Basics of probability, calculating probability, experimental probability |
| *PRIOR LEARNING* | *NC 2013 KS2 Number* |  |
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|  | **SPRING TERM 2** | |
| TOPIC | **7 Ratio and proportion** | |
|  | Direct proportion, writing ratios, using ratio, proportions and fractions, proportions and percentages | |
| *PRIOR LEARNING* | *NC 2013 KS2 Ratio and proportion* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **8 Lines and angles** | **9 Sequences and graphs** |
|  | Lines angles and triangles, estimating, measuring and drawing angles, angles in a triangle, quadrilaterals | Sequences, coordinates, straight lines graphs |
| *PRIOR LEARNING* | *NC 2013 KS2 Geometry* | *NC 2013 KS2 Algebra* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **10 Transformations** | |
|  | Congruency and enlargements, symmetry, reflections, rotation, translation | |
| *PRIOR LEARNING* | *NC 2013 KS2 Geometry* | |

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|  | **YEAR 8** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **1 Number** | **2 Area and volume** |
|  | Calculations, negative numbers, powers and roots, substituting, multiples and factors | Area of triangle, parallelogram, trapezium, volume of cubes and cuboids, 3D shapes, surface area of cubes and cuboids |
| *PRIOR LEARNING* | *Y7 Unit 2 Number skills* | *Y7 Unit 4 Decimals and measures* |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **4 Expressions and equations** | **5 Real-life graphs** |
|  | Algebraic powers, expressions and brackets, factorising, solving equations | Conversion graphs, distance time graphs, line graphs, real life graphs |
| *PRIOR LEARNING* | *Y7 Unit 3 Expressions, functions & formulae* | *Y7 Unit 1 Analysing and displaying data, Y7 Unit 9 Sequences and graphs* |
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|  | **SPRING TERM 1** | |
| TOPIC | **6 Decimals and ratio** | **7 Lines and angles** |
|  | Ordering decimals and rounding, calculating with decimals, ratio and proportion with decimals | Quadrilaterals, alternative angles and proof, exterior and interior angles |
| *PRIOR LEARNING* | *Y7 Unit 2 Number skills, Y7 Unit 4 Decimals and measures* | *Y7 Unit 8 Lines and angles* |
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|  | **SPRING TERM 2** | |
| TOPIC | **8 Calculating with fractions** | |
|  | Adding and subtracting fractions, multiplying fractions, dividing fractions, reciprocals | |
| *PRIOR LEARNING* | *Y7 Unit 5 Fractions, Y7 Unit 2 Number skills* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **9 Straight Line Graphs** | **10 Percent, decimals & fractns** |
|  | Direct proportion on graphs, gradients, equations of straight lines | Fractions and decimals, equivalent proportions, writing percentages, percentages of amounts |
| *PRIOR LEARNING* | *Y7 Unit 9 Sequences and graphs* | *Y7 Unit 4 Decimals, Y7 Unit 5 Fractions, Y7 Unit 7 ratio and proportion, Y8 Unit 8 Calculating with fractions and decimals* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **3 Statistics, graphs and charts** | |
|  | Pie charts, stem and lead diagrams, comparing data, scatter graphs | |
| *PRIOR LEARNING* | *Y7 Unit 1 Analysing and displaying data* | |

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|  | **YEAR 9 CORE/FOUNDATION** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 1 Number** | |
|  | Calculations, place value, factors and multiples, squares, cubes and roots, index notation, prime factors | |
| *PRIOR LEARNING* | *Y8 Unit 1 Number* | |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 2 Algebra** | |
|  | Algebraic expressions, simplifying expressions, substitution, formulae, expanding brackets, factorising, Using formulae | |
| *PRIOR LEARNING* | *Y8 Unit 4 Expressions and equations, Y9 Unit 1 Number* | |
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|  | **SPRING TERM 1** | |
| TOPIC | **Unit 3 Graphs, tables and charts** | **Unit 4 Fractions and percentages** |
|  | 2 way tables, stem and leaf, pie charts, scatter graphs | Working with fractions, +,-,x and dividing fractions, FPD, calc percentages |
| *PRIOR LEARNING* | *Y8 Unit 5 Real life graphs* | *Y8 Unit 8 Calculating with fractions, Unit 10 percentages, decimals and fractions, Y9 Unit 1 Number* |
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|  | **SPRING TERM 2** | |
| TOPIC | **Unit 5 Equations, inequalities and sequences** | |
|  | Solving equations, inequalities, generating sequences, nth term | |
| *PRIOR LEARNING* | *Y8 Unit 4 Expressions and equations, Y9 Unit 1 Number & Unit 2 Algebra* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **Unit 6 Angles** | **Unit 7 Averages and range** |
|  | Properties of shapes, angles in parallel lines, triangles, polygons | Mean, mode, median and range, estimating mean, sampling |
| *PRIOR LEARNING* | *Y8 Unit 7 Lines and angles, Y9 Unit 2 Algebra* | *Y7 Unit 1 Analysing and displaying data; Y9 Unit 3 Graphs, tables and charts* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **Unit 8 Perimeter, area and volume 1** | |
|  | Rectangles, parallelograms, triangles, compound shapes, surface areas & volume | |
| *PRIOR LEARNING* | *Y8 Unit 2 Area and volume* | |
|  | **YEAR 9 HIGHER** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 1 Number** | |
|  | HCF, LCM, Calculating with powers, harder indices, standard form, surds | |
| *PRIOR LEARNING* | *Y8 Unit 1 Number* | |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 2 Algebra** | |
|  | Algebraic indices, expanding and factorising, equations, formulae, sequences | |
| *PRIOR LEARNING* | *Y8 Unit 4 Expressions and equations, Y9 Unit 1 Number* | |
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|  | **SPRING TERM 1** | |
| TOPIC | **Unit 3 Interpreting and representing data** | **Unit 4 Fractions, ratio and percentages** |
|  | Time series, scatter graphs, averages and statistical diagrams | Fractions, ratio and proportion, percentages, FPD |
| *PRIOR LEARNING* | *Y8 Unit 5 Real life graphs* | *Y8 Unit 8 Calculating with fractions, Unit 10 percentages, decimals and fractions, Y9 Unit 1 Number* |
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|  | **SPRING TERM 2** | |
| TOPIC | **Unit 5 Angles and trigonometry** | |
|  | Angle properties of triangles and quadrilaterals, angles in polygons, Pythagoras Theorem, trigonometry | |
| *PRIOR LEARNING* | *Y8 Unit 7 Lines and angles, Y9 Unit 2 Algebra Y9 Unit 4 Fractions ratio and percentages* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **Unit 6 Graphs** | **Unit 7 Area and volume** |
|  | Linear graphs, rates of change, real life graphs, line segments, Quadratic and cubic graphs | Perimeter and area, prisms, circles, cylinders spheres and pyramids |
| *PRIOR LEARNING* | *Y8 Unit 5 Real life graphs, Y9 Unit 2 Algebra, Unit 4 Fractions ratio and percentages* | *Y8 Unit 2 Area and Volume, Y9 Unit 1 Number, Unit 2 Algebra, Unit 4 Fractions ratio and percentages* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **Unit 8 Transformation and constructions** | |
|  | 3D solids, Reflection, rotation, enlargement, bearings, loci and constructions | |
| *PRIOR LEARNING* | *Y8 Unit 5 Real life graphs, Y9 Unit 6 Graphs* | |

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|  | **YEAR 10 CORE/FOUNDATION** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 9 Graphs** | **Unit 10 Transformations** |
|  | Coordinates, linear graphs, gradients, y=mx +c, real life graphs, distance time graphs | Translation, reflections, rotation, enlargement, combined transformations |
| *PRIOR LEARNING* | *Y9 Unit 5 Equations, inequalities and sequences* | *Y9 Unit 9 Graphs* |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 11 Ratio and proportion** | |
|  | Writing ratio, using ratio, comparing using ratio, proportion, | |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 4 Fractions and percentages* | |
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|  | **SPRING TERM 1** | |
| TOPIC | **Unit 12 Right-angled triangles** | **Unit 13 Probability** |
|  | Pythagoras Theorem, trigonometry SOHCAHTOA | Calculating probability, 2 events, experimental probability, Venn diagrams and tree diagrams |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 5 Equations, inequalities and sequences, Unit 6 Angles* | *Y9 Unit 4 fractions and percentages* |
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|  | **SPRING TERM 2** | |
| TOPIC | **Unit 14 Multiplicative reasoning** | |
|  | Percentages, growth and decay, compound measures, distance speed time, direct and inverse proportion | |
| *PRIOR LEARNING* | *Y8 Unit 10 Percentages, decimals and fractions, Y9 Unit 4 Fractions and percentages, Y9 Unit 5 Equations, Inequalities and sequences* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **Unit 15 Constructions, loci and bearings** | **Unit 16 Quadratic equations and graphs** |
|  | Plans and elevation, scale drawings, constructions, loci and bearings | Expanding double brackets, plotting quadratics, factorising quadratics, solving quadratics |
| *PRIOR LEARNING* | *Y9 Unit 6 Angles, Unit 10 Transformations, Unit 11 Ratio and Proportion* | *Y9 Unit 1 Number, Unit 2 Algebra, Unit 5 Equations, inequalities and sequences, Unit 9 Graphs* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **Unit 17 Perimeter, area and volume 2** | |
|  | Areas and circumference of circles, semicircles and sectors, pyramids and cones, spheres | |
| *PRIOR LEARNING* | *Y9 Unit 8 Perimeter, area and volume, Y10 Unit 12 Right angled triangles* | |
|  | **YEAR 10 HIGHER** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 9 Equations and inequalities** | **Unit 10 Probability** |
|  | Solving quadratics, simultaneous equations, solving inequalities | Combined events, mutually exclusive events, tree diagrams, conditional probability, Venn diagrams |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 2 Algebra, Unit 6 graphs* | *Y9 Unit 1 Number, Unit 4 fractions ratio and percentages* |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 11 Multiplicative reasoning** | |
|  | Growth and decay, compound measures, ratio and proportion | |
| *PRIOR LEARNING* | *Y9 Unit 2 Algebra, Unit 4 Fractions ratio and percentages, Unit 6 Graphs, Unit 7 Area and Volume* | |
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|  | **SPRING TERM 1** | |
| TOPIC | **Unit 12 Similarly and congruence** | **Unit 13 More trigonometry** |
|  | Congruence, geometric proof, similarity | Graphs of trig functions, sin rule, cosine rule, transforming trig functions |
| *PRIOR LEARNING* | *Y9 Unit 5 Angles and trigonometry, Unit 7 Area and volume, Unit 8 Transformations and constructions* | *Y9 Unit 2 Algebra, Unit 7 Area and Volume, Unit 9 Equations and inequalities* |
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|  | **SPRING TERM 2** | |
| TOPIC | **Unit 14 Further statistics** | |
|  | Sampling, cumulative frequency, box plots, histograms, comparing distributions | |
| *PRIOR LEARNING* | *Y9 Unit 2 Algebra, Unit 3 interpreting and representing data* | |
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|  | **SUMMER TERM 1** | |
| TOPIC | **Unit 15 Equations and graphs** | **Unit 16 Circle theorems** |
|  | Solving simultaneous equations graphically, inequalities and graphs | Radii and chords, tangents, Angles in circles |
| *PRIOR LEARNING* | *Y9 Unit 2 Algebra, Unit 6 Graphs, Y10 Unit 9 Equations and inequalities* | *Y9 Unit 6 Graphs, Unit 7 Area and volume* |
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|  | **SUMMER TERM 2** | |
| TOPIC | **Unit 17 More algebra** | |
|  | Rearranging formulae, algebraic fractions, surds and proof | |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 2 Algebra, Y10 Unit 9 Equations and inequalities* | |

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|  | **YEAR 11 CORE/FOUNDATION** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 18 Fractions, indices and standard form** | **Unit 19 Congruence, similarity and vectors** |
|  | Laws of indices, standard form, multiplying and dividing fractions | Similarity and enlargement, congruence, vectors |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 4 Fractions and percentages* | *Y9 Unit 6 Angles, Y10 Unit 8 Perimeter, area and Volume 1, Unit 10 Transformations, Unit 11 Ratio and proportion,* |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 20 More algebra** | |
|  | Graphs of cubic and reciprocals, non linear graphs, rearranging formulae, proof, simultaneous equations | |
| *PRIOR LEARNING* | *Y9 Unit 5 Equations, inequalities and sequences, Y10 Unit 9 Graphs, Unit 16 Quadratic equations and graphs* | |
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|  | **SPRING TERM 1** | |
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|  | **YEAR 11 HIGHER** | |
|  | **AUTUMN TERM 1** | |
| TOPIC | **Unit 18 Vectors and geometric proof** | |
|  | Vectors, vector arithmetic, solving geometric problems | |
| *PRIOR LEARNING* | *Y9 Unit 4 Fractions ratio and percentages, Unit 5 Angles and trigonometry, Unit 8 Transformations and constructions, Y10 Unit 17 More algebra* | |
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|  | **AUTUMN TERM 2** | |
| TOPIC | **Unit 19 Proportion and graphs** | |
|  | Direct proportion, inverse proportion, exponential functions, translating functions, reflecting and stretching graphs of functions | |
| *PRIOR LEARNING* | *Y9 Unit 1 Number, Unit 6 Graphs, Unit 7 Area and volume, Y10 Unit 13 More trigonometry. Unit 17 More algebra* | |
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