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Description automatically generated**Maths Curriculum 2024-2025**

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Year 7** | **DATA**  Mode, Median and Range  Displaying data. Averages and comparing data.  Line Graphs and Bar Charts  ***LINKING LEARNING:***  ***Collecting Data***  ***Ordering***  ***Graph Work***  **NUMBER**  Mental Maths  Addition, subtraction, Multiplication and division  Money and Time  Negative numbers  Factors/multiples/  primes/Square numbers  ***LINKING LEARNING:***  ***Number bonds***  ***4 Operations*** | **ALGEBRA**  Functions  Simplifying  Forming  Substitution  ***LINKING LEARNING:***  ***Number Machines***  **NUMBER/MEASURE**  Decimals and rounding  Length, mass, capacity  Scales and measures  Add, subtract multiple and divide decimals  Perimeter and Area  Estimating with units of measure  ***LINKING LEARNING:***  ***Metric Measures (basic conversions)***  ***Shape Facts*** | **NUMBER**  Comparing/simplifying/  calculations with fractions  Fractions Decimals and percentages  Percentages of an amount  ***LINKING LEARNING:***  ***Factors and Multiples***  ***Equivalence (FDP)***  **PROBABILITY**  Calculating with probabilities  Experimental probability  Expected outcomes  ***LINKING LEARNING:***  ***Fractions, Decimals and Percentages*** | **RATIO/PROPORTION**  Simple direct proportion  Writing and using ratios  Ratio, proportion, fractions and percentages  ***LINKING LEARNING:***  ***Multiplication and Division*** | **MEASURE**  Measure and draw angles  Measure and draw lines with constructions (triangles)  Calculating angles  Types of quadrilaterals  ***LINKING LEARNING:***  ***Basic Shape and Angle Facts***  **NUMBER/MEASURE**  Describing and generating sequences  Coordinates and midpoints  Straight line graphs  Position to term rules  ***LINKING LEARNING:***  ***Number and Shape Patterns*** | **SHAPE**  Congruence  Enlargements  Symmetry  Reflections  Rotations  Translations  Combined transformations  ***LINKING LEARNING:***  ***Basic Shape Facts*** |
| **Assessment** | **Arrival baseline assessment** | **End of term cumulative KS3 assessment** |  | **End of term cumulative KS3 assessment** |  | **End of year KS3 cumulative assessment** |
| **Year 8** | **NUMBER**  Calculations (mental and written) including division  Negative numbers  Powers and roots  Multiples and factors  ***LINKING LEARNING:***  ***BIDMAS***  **SHAPE**  Area of shapes  Volumes  2D/3D Shapes  Surface Area  Converting measures  ***LINKING LEARNING:***  ***Basic Shape Facts*** | **DATA**  Pie Charts  Creating and using tables  Comparing data in various diagrams  Scatter Diagrams  Misleading graphs  ***LINKING LEARNING:***  ***Collecting Data***  ***Basic Angle Facts (Circle)***  **ALGEBRA**  Powers  Expressions and brackets  Factorising  One and Two step solving  Balancing equations  ***LINKING LEARNING:***  ***Powers and Roots***  ***Factors and Multiples***  ***Algebra Manipulation (Basic)*** | **FURTHER DATA**  Conversion graphs  Distance Time graphs  Line graphs  Further real life graphs  Graphs of curves  **NUMBER**  Ordering and rounding decimals  Place value calculations  Calculations with decimals  Ratio and proportion (with decimals)  ***LINKING LEARNING:***  ***Rounding Numbers (Whole number, nearest 10 etc)*** | **SHAPE**  Types of quadrilaterals  Angles in parallel lines  Interior and exterior angles  Forming and solving geometric equations  ***LINKING LEARNING:***  ***Basic Shape and Angle Facts***  ***Symmetry*** | **NUMBER**  Ordering fractions  Calculations with fractions  Understanding, using and calculations with mixed numbers  ***LINKING LEARNING:***  ***Factors and Multiples***  **RATIO and PROPORTION**  Straight line graphs – plotting, direct proportion, gradients and equations of straight lines  ***LINKING LEARNING:***  ***Axes and Scales knowledge*** | **NUMBER**  Converting and comparing Fractions percentages and decimals (including recurring decimals)  Percentages of an amount  Percentage increase/decrease  Multiplier methods with percentages  ***LINKING LEARNING:***  ***Key Percentages (10% etc)*** |
| **Assessment** |  | **End of term cumulative KS3 assessment** |  | **End of term cumulative KS3 assessment** |  | **End of year KS3 cumulative assessment** |
| **Year 9** | **NUMBER**  Indices  Calculations and estimates  Standard Form  ***LINKING LEARNING:***  ***Basic powers and Roots***  **ALGEBRA**  Solving equations  Substitution  Forming and Solving  Rearranging formulae  Index Laws  Expand and simplify | **DATA**  Surveys  Collecting Data  Averages  Displaying and analysing data  Comparing data  ***LINKING LEARNING:***  ***Graph work, scales and axes***  **NUMBER/SHAPE**  Enlargements  Percentage change  Compound Measures  Direct and Inverse Proportion  ***LINKING LEARNING:***  ***Congruence and Similar Shapes***  ***Basic Percentages (10%)*** | **SHAPE**  Scales  Basic Constructions  Constructing Triangles  Accurate scale diagrams  ***LINKING LEARNING:***  ***Using a Compass***  **NUMBER**  nth term sequences  Non-linear sequences  Inequalities  Solving equations  Proportion | **SHAPE**  Circumference and area of circles  Pythagoras’ Theorem  Prisms and Cylinders  Errors and bounds  ***LINKING LEARNING:***  ***Key Language – Circles, Triangles and 3D Shape***  ***Rounding*** | **SHAPE/ALGEBRA**  Y = mx + c  Straight line graphs  Simultaneous equations  Quadratic functions  Further non-linear graphs  **PROBABILITY**  Mutually exclusive events  Experimental and theoretical probability  Sample space  Two-way tables  Venn Diagrams  ***LINKING LEARNING:***  ***Key Language***  ***Fractions, Decimals and Percentages*** | **SHAPE**  Congruent and similar shapes  Ratios in triangles  Trigonometry  Sine  Cosine  Tangent  Using Trigonometry to find angles  Mixing Trigonometry with Pythagoras  ***LINKING LEARNING:***  ***Shape Facts, particularly triangles*** |
| **Assessment** |  | **End of term cumulative KS3 assessment** |  | **End of term cumulative KS3 assessment** |  | **End of year KS3 cumulative assessment** |
| **Year 10** | ***HIGHER***  **Unit 1**  Powers, decimals, HCF and LCM, positive and negative, roots, rounding, reciprocals, standard form, indices and surds  ***LINKING LEARNING:***  ***Powers and Roots***  **Unit 2**  Expressions, substituting into simple formulae, expanding and factorising, equations, sequences and inequalities, simple proof  ***FOUNDATION***  **Unit 1**  Number, powers, decimals, HCF and LCM, roots and rounding  ***LINKING LEARNING:***  ***Powers and Roots***  ***Factors and Multiples***  **Unit 2**  Expressions, substituting into simple formulae, expanding and factorising | ***HIGHER***  **Unit 3**  Averages and range, collecting data, representing data  ***LINKING LEARNING:***  ***Mean, Median, Mode and Range***  **Unit 4**  Fractions, percentages, ratio and proportion  ***LINKING LEARNING:***  ***Key Percentages (10%)***  ***Equivalent Fractions***  ***FOUNDATION***  Conclude Unit 2  **Unit 3**  Drawing and interpreting graphs, tables and charts | ***HIGHER***  **Unit 5**  Angles, polygons, parallel lines; Right-angled triangles: Pythagoras and trigonometry  ***LINKING LEARNING:***  ***Basic Shape and Angle Facts – particularly triangles***  **Unit 6**  Real-life and algebraic linear graphs, quadratic and cubic graphs, the equation of a circle, plus rates of change and area under graphs made from straight lines  ***LINKING LEARNING:***  ***Knowledge of axes and scales***  ***FOUNDATION***  Conclude Unit 3  **Unit 4**  Fractions and percentages  ***LINKING LEARNING:***  ***Key Percentages (10%)***  ***Equivalent Fractions*** | ***HIGHER***  **Unit 7**  Perimeter, area and volume, plane shapes and prisms, circles, cylinders, spheres, cones; Accuracy and bounds  ***LINKING LEARNING:***  ***Area and Perimeters of common 2D shapes***  **Unit 8**  Transformations; Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings  ***FOUNDATION***  **Unit 5**  Equations, inequalities and sequences  **Unit 6**  Angles, polygons and parallel lines  ***LINKING LEARNING:***  ***Basic Shape and Angle Facts*** | ***HIGHER***  **Unit 9**  Algebra: Solving quadratic equations and inequalities, solving simultaneous equations algebraically  **Unit 10**  Probability  ***FOUNDATION***  **Unit 7**  Statistics, sampling and the averages  ***LINKING LEARNING:***  ***Mean, Median, Mode and Range***  **Unit 8**  Perimeter, area and volume  ***LINKING LEARNING:***  ***Basic Shape Facts*** | ***HIGHER***  **Unit 11**  Multiplicative reasoning: direct and inverse proportion, relating to graph form for direct, compound measures, repeated proportional change  **Unit 12**  Similarity and congruence in 2D and 3D  ***LINKING LEARNING:***  ***Enlargements***  ***FOUNDATION***  **Unit 9**  Real-life and algebraic linear graphs  **Unit 10**  Transformations  ***LINKING LEARNING:***  ***Reflections, Symmetry and Movements*** |
| **Assessment** |  | **End of term cumulative KS4 assessment** |  | **End of term cumulative KS4 assessment** |  | **End of year 10 KS4 assessment** |
| **Year 11** | ***HIGHER***  **Unit 13**  Sine and cosine rules, *ab* sin *C*, trigonometry and Pythagoras’ Theorem in 3D, trigonometric graphs, and accuracy and bounds  ***LINKING LEARNING:***  ***Triangle Facts***  ***Trigonometry***  ***Pythagoras***  **Unit 14**  Statistics and sampling, cumulative frequency and histograms  ***LINKING LEARNING:***  ***Presenting Data***  ***FOUNDATION***  **Unit 11**  Ratio and Proportion  **Unit 12**  Right-angled triangles: Pythagoras and trigonometry  ***LINKING LEARNING:***  ***Triangle Facts*** | ***HIGHER***  **Unit 15**  Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics  **Unit 16**  Circle theorems and circle geometry  ***LINKING LEARNING:***  ***Angle Facts***  ***Line Facts (Parallel, Perpendicular)***  ***FOUNDATION***  **Unit 13**  Probability  **Unit 14**  Constructions: triangles, nets, plan and elevation, loci, scale drawings and bearings  ***LINKING LEARNING:***  ***Compass and Ruler Work*** | ***HIGHER***  **Unit 17**  Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof  ***LINKING LEARNING:***  ***Algebra Skills***  **Unit 18**  Vectors and geometric proof  ***FOUNDATION***  **Unit 15**  Plans and elevations  **Unit 16**  Algebra: quadratic equations and graphs | ***HIGHER***  **Unit 19**  Direct and indirect proportion: using statements of proportionality, reciprocal and exponential graphs, rates of change in graphs, functions, transformations of graphs  ***FOUNDATION***  **Unit 17**  Perimeter, area and volume 2: circles, cylinders, cones and spheres  **Unit 18**  More fractions, reciprocals, standard form, zero and negative indices  ***LINKING LEARNING:***  ***Powers and Roots***  **Unit 19**  Congruence, similarity and vectors  ***LINKING LEARNING:***  ***Knowledge of Shape***  ***Englargements*** | ***HIGHER***  **Conclude Unit 19 and revisit key areas**  ***FOUNDATION***  **Unit 20**  Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations  **Revisit key areas** |  |
| **Assessment** | **Baseline 1 x non calculator GCSE paper** | **Full GCSE Mock examinations** |  | **Full GCSE Mock examinations** | **GCSEs** |  |

**\*GCSE Content timings in years 10 and 11 can vary to allow for GCSE paper practice and revision\***

**\*\*Intervention content may be taught to certain students through Years 10 and 11\*\***