

Roundwood Park School Curriculum Map – Maths (YR8)

A curriculum that stimulates curiosity, values diversity and offers challenge.

We help every student to love learning for life, to follow their passions and to reach their full potential.

Year Group 8	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Work	Place Value/Standard Form Linear Equations Fractions	Laws of Indices Rearranging Formula Angles	Constructions/Congruence Percentages Probability	Charts/Averages Quadratics Ratio and Scale	Circles Volume	Transformations and Enlargements Pythagoras Theorem
Key Knowledge or Enquiry Question	Write and read large and small numbers in standard form, Adding and Subtracting standard form, Solve linear equations with unknowns on both sides, Solving equations involving single brackets, Factorise into a single bracket, Terminating and recurring fractions, Multiply and divide fractions.	Addition and subtraction rule with positive indices, power of zero, Multiplication rule for indices, Roots as inverses of powers, Change the subject of a formula, Interior and exterior angles of a polygon, Angles between parallel lines, Bearings, Scale diagrams	Perpendicular bisector of a line and from a point, Angle Bisector, Construct 2D shapes, Congruent Triangles, Simple proof, Multipliers for percentage increase and decrease, Percentage change problems, Original value problems, Simple interest, Theoretical/Experimental Probability, Mutually Exclusive, Sample Space	Discrete/Continuous data, Grouped/ungrouped data, Mean, Median, Mode, Range, Correlation, Compare data, Expand two brackets, Factorise a quadratic, Simplify expressions, Comparing quantities, Units of measure, Compound units, Proportion Speed/Distance/Time	Circle parts and properties, Circumference, Area of a circle, Parts of circles including semi-circles and quarter-circles, Volume of prisms and cylinders, Surface area of prisms and cylinders	Enlargements with positive integer, fractional, and negative scale factor, Find the centre of an enlargement, Find the scale factor of an enlargement, Identify the hypotenuse in a right angle triangle, Use Pythagoras in 2D, Use Pythagorean triples
Concepts	Students will be developing critical thinking skills as we nurture a classroom culture in which mathematical discussions is part of the daily routine. Students will be developing problem solving skills through the more challenging questions in each lesson and are encouraged to work systematically, reason logically and to look for patterns. Students will be encouraged to spend time reflecting upon teacher feedback following end of unit tests home learning or end of term assessments. Where multiple solutions are possible discussion will be encouraged to discuss the benefits and drawbacks of each solution.					
Key Vocabulary	Standard Form, Significant figure, Power, Indices, Product, Variable, Term, Coefficient, Factorise, Unknown, Equation, Bracket, Solve, Solution, Fraction, Mixed Number, Improper Fraction, Percentage Decimal, Terminating, Recurring, Simplify	Power, Indices, Coefficients, Roots, Formula, Formulae, Subject, Angle, Degrees, Acute, Obtuse, Reflex, Vertically opposite, Parallel, Alternate, Corresponding, Interior, Exterior, Regular, Polygon	Angle, Bisect, Perpendicular, Congruent, Conjectures, Proof, Isosceles, Construct, Percent, Percentage change, Original amount, Multiplier, Interest, Probability, Theoretical, Event, Outcome, Impossible, Certain,	Data, Categorical, Discrete, Continuous, Frequency, Average, Spread, Mean, Median, Mode, Range, Statistic, Correlation, Linear, Quadratic, Expand, Factorise, Term, Variable, Coefficient, Ratio Proportion, Multiplier, Unitary, Speed	Circle, Centre, Radius, Diameter, Chord, Circumference, Perimeter, Area, Pi, Prism, Cross-Section, Cylinder, Volume, Surface Area	Quadrants, Reflection, Rotation, Translate, Tessellate, Enlarge, Scale Factor, Centre of Enlargement, Pythagoras, Theorem, Square, Square root, Hypotenuse, Pythagorean Triple,
ASPIRE Habits	Focus	Making Links	Communicate	Collaborate	Question	Take risks
Reading Opportunities	The Curious Incident of the dog in the night-time Mark Haddon		The Number Devil: A Mathematical Adventure Hans Magnus Enzensberger		Alex's Adventures in Numberland Alex Bellos	