Hulme Hall Grammar School
•Caring •Nurturing •Achieving

Maths KS3 Assessment

	Grade 3
Number	• Round decimals to one and two decimals places • Round to a given significant figures • Multiply and divide integers and decimals by 0.1 and 0.01 • Multiply and divide decimals • Convert integers into standard form • Use positive and negative square roots, cube and cube roots • Use index notation for small positive integer powers • Write an integer as a product of its prime factors • Convert between improper and mixed fractions • Use written division methods to convert a fraction to a decimal • Multiply integers by fractions • Compare & Order fractions, including those with different denominators • Add and subtract fractions by converting one fraction • Order decimals, including those which have a different number of decimal places • Use inequality signs to show comparisons between two fractions, or decimals • Calculate percentages of amounts, using multipliers • Increase/decrease an amount by a given percentage, including reverse percentage problems
Algebra	• Expand, factorise and simplify a single bracket • Substitute positive and negative integers into expressions and formulae • Calculate inputs and outputs from function machines, including negatives • Generate a sequence from the nth term • Calculate the nth term • Know the first five triangular numbers and to be able to continue the sequence • Calculate the midpoint of a line on a coordinate grid • Solve problems involving shapes on coordinate grid • Plot equations of line in form and identify the gradient
Ratio and Proportion	• Convert between miles and kilometres • Convert between imperial units and currencies when conversions are given • Share an amount in a given ratio • Use ratio to compare scale drawings to real life • Use equivalent fractions/decimals and percentages to compare proportions • Express a number as a percentage of another
Geometry	• Calculate the volume of a prism and cuboid • Calculate the surface area of prism • Calculate the area of a trapezium • Identify and name parts of circle • Calculate the circumference and area of a circle • Identify and calculate angles in parallel lines e.g.: alternate, corresponding & allied • Calculate angles in isosceles and equilateral triangles • Draw and find bearings • Describe rotations, translations and reflections • Identify congruent shapes
Statistics	• Draw and interpret scatter graphs including line of best fit • Calculate the modal class from grouped data • Plan and construct two-way tables
Probability	• Understand that the sum of probabilities of all mutually exclusive outcomes is 1 • List all outcomes systematically • Draw sample space diagrams for two events • Add simple probabilities • Estimate the number of times an event will occur • Interpret results of an experiment using the language of probability • Compare estimated experimental probabilities with theoretical probabilities • Work out probabilities from Venn diagrams