Y7 Maths Mastery Curriculum

Core knowledge to be mastered Y7 maths	Core skills to be mastered Y7 maths
• Knowledge of place value table	• Recognise a value of a digit • Multiply and divide by powers of 10 • Add and subtract decimals
• Knowledge of number bonds	• Pupils can use number bonds
• Knowledge of units of length, weight, volume • Read scales to measure	• Solve problems involving money • Estimate lengths, weights and volume of objects
• Know definition of perimeter	• Find the perimeter of polygons, irregular shapes and compound shapes • Solve wordy problems involving perimeter
• Know how to multiply and divide numbers including decimals	• Multiply and divide numbers including decimals
• Know definitions of factors, primes and HCF	• Find factors of a number and go on to find the HCF using lists • Recognise prime numbers
• Know formula for area of • rectangles and triangles	• Find areas of rectangles and • triangles
• Know the definition of mean	• Calculate the mean from a list
• Know definitions of acute, obtuse and reflex angles, parallel and perpendicular • Draw and measure angles	• Name types of angles • Recognise parallel and perpendicular lines • Use a protractor accurately
• Know angles on a line add to 180, around a point is 360 and vertically opposite angles are equal	• Find unknown angles on a line, around a point and vertically opposite
• Know names and properties of triangles and quadrilaterals	• Recognise types of triangles and quadrilaterals • Identify order of rotation and lines of symmetry in shapes • Find missing angles in triangles and quadrilaterals
• Know formula for area of a parallelogram	• Find areas of parallelograms
• Understand how to represent fractions using diagrams and area • Understand what is meant by equivalent fractions	• Can draw and interpret diagrams that represent fractions • Find and simplify equivalent fractions • Order fractions and decimals • Add and subtract fractions
• Know definitions of multiple and LCM	• Find multiples of a number and go on to find the LCM using lists

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• Understand what is meant by a mixed number and top heavy fraction	• Convert between mixed numbers and top heavy fractions • Add and subtract mixed numbers
• Know how to find a unit fraction	• Find a fraction of a quantity
• Understand commutative associative and distributive laws in calculations	• Use BIDMAS to follow order of operations
• Know how to simplify algebraic expressions	• Collect like terms
• Understand that letters can be used to represent numbers	• Substitute positive numbers into algebraic expressions • Forming algebraic expressions from wordy problems
• Recognise sequences	• Follow on patterns in a sequence and identify term to term rules (not nth term)
• Understand pie charts	• Read and interpret pie charts • Find the mode from a pie chart and a list of data
• Understand a percentage means out of 100 • Understand a percentage can be represented as a fraction and a decimal	• Convert between fractions, decimals and percentages
• Understand how to break a whole into parts	• Find percentages of quantities • Find the whole given the part and the percentage
• Understand the relationship between percentage and fraction and proportion	• Solve word problems involving proportion