St. Paul's C of E Primary School

Maths Long Term Plan Year 6

DOMAINS	TERM 1	TERM 2	TERM 3
NUMBER	• Read & write numbers up to 10 million • To compare & order numbers • Identify place value of digits	• Round whole numbers to required degree of accuracy • Calculate intervals in negative numbers	• Use negative numbers in the context of temperature & calculate across zero • Solve number puzzles involving addition & subtraction of positive & negative numbers
CALCULATIONS (ADDITION, SUBTRACTION, MULTIPLICATION & DIVISION)	• Add & subtract large numbers • Short multiplication of whole numbers & decimals • Use a formal written method for long multiplication • Short division of whole numbers & decimals • Practise & apply known multiplication facts • Develop strategies to work out mental calculations • Identify common multiples • Solve addition & subtraction number problems	• Practise a formal written method for long multiplication • Use a formal written method of long division • Practise long division of whole numbers & decimals • Use estimation to check answers to calculations • Write remainders as a fraction (in its simplest form) • Practise & apply known multiplication/division facts • Use mental methods to add & subtract large numbers • Identify common factors & prime numbers • Use knowledge of the order of operations • Solve multi-step word problems	• Practise written methods for short & long multiplication • Practise written methods for short & long division • Practise written methods for multiplication & division • Practise written methods for long multiplication & long division • Determine whether to round up or down after division • Practise & apply known multiplication/division facts • Perform mental calculations involving large numbers & mixed operations • Explore the order of operations using brackets • Solve multi-step word problems • Solve number puzzles involving multiplication & division
FRACTIONS	• Use common factors to simplify fractions • Use common multiples to find equivalent fractions & common factors to simplify fractions • Add & subtract fractions & mixed numbers with different denominators • Find the whole quantity given the quantity represented by a unit fraction • Calculate the decimal equivalent of a fraction by division • Identify the value of decimal fractions (to 3dp) • Round decimals to nearest tenth or hundredth • Multiply & divide decimals by 10 and 100 • Multiply numbers with up to two decimal	• Use the highest common factors to simplify fractions • Compare & order fractions (including improper fractions) • Add & subtract mixed numbers • Round decimals to up to three decimal places • Multiply & divide decimals by 10, 100 and 1000 • Divide numbers with up to two decimal places by one-digit whole numbers • Use written methods for division giving remainders as decimals • Use equivalence between fractions, decimals & percentages	• Multiply pairs of fractions (write answer in its simplest form) • Divide fractions by whole numbers • Multiply & divide decimals by 10, 100 and 1000 • Use written division methods where the answer has up to 2 decimal places • Write remainders as fractions & decimals in context of word problems • Solve number problems involving fractions, decimals & percentages mentally • Calculate fractions & percentages of amounts

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	places by whole numbers		
RATIO & PROPORTION	• Simplify ratios	• Solve problems involving the calculation of percentages of amounts • Use ratio to solve problems • Solve problems involving proportion	• Calculate fractions & percentages of amounts • Solve problems involving ratio & proportion • Use ratio notation in the context of scale drawing
ALGEBRA	• Solve missing number problems & begin to express such problems algebraically • Generate & describe number sequences	• Solve a missing number problem algebraically • Use formulae (in words & algebraically) • Generate & describe number sequences	• Solve equations with 2 unknown variables • List all possible outcomes of combinations of 2 variables • Generate & describe number sequences
MEASUREMENT	• Convert between standard units of length, mass & capacity & between miles & kilometres • Convert between standard units of length, mass & capacity • Find area & perimeter using the formulae • Solve word problems involving measures • Solve word problems involving decimal notation of measures • Solve word problems involving calculation & conversion of units of measure	• Read scales • Recognise shapes with the same areas may have different perimeters (vie versa) • Volume of cubes & cuboids • Solve word problems involving calculation & conversion of units of measure • Solve multi-step word problems involving measures	• Add & subtract positive & negative numbers (e.g. in temperature) • Use formulae to calculate areas of triangles/parallelograms • Comparing volumes of cubes & cuboids • Solve multi-step word problems involving measures • Solve practical measurement problems
GEOMETRY	• Estimate angles • Find unknown angles in triangles & quadrilaterals • Find missing angles (at a point; on a straight line; which are vertically opposite) • Construct quadrilaterals • Compare, classify & describe properties of 2-D shapes • Positions on a full coordinate grid	• Construct triangles • Properties of 3-D shapes • Circles – diameter & radius • Draw shapes on the full coordinate grid • Translate shapes on first quadrant • Reflect a shape on the first quadrant	• Find unknown angles in reguar polygons • Construct 2-D shapes • Nets for 3-D shapes • Circles – name parts & construct arcs & sectors • Reflect shapes on the coordinate plane
STATISTICS	Interpret & construct pie charts Interpret conversion graphs involving measures Calculate the mean in a set of data	Interpret & construct pie charts Interpret conversion graphs involving currencies line graphs for journeys Interpret the mean in a set of data	Interpret & construct line graphs involving temperature changes Calculate & interpret the mean in a set of data
REVIEW/ASSESSMENT	Use 'Rising Star Assessments' after each domain.	Use 'Rising Star Assessments' after each domain.	Use 'Rising Star Assessments' after each domain.