St John Baptist School Maths Ladder Year 6

Multiplication	Fractions	Place Value	Properties of Number	Problem solving
21) I can multiply 1digit numbers with up to 2 decimal places by whole numbers in the context of money and measures.	25) * I can divide proper fractions by a whole number e.g. 1/3 ÷ 2 = 1/6	32) * I can use negative numbers in context and calculate intervals across zero.	10) * I can generate and describe linear number sequences.	31) * I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts.
22) I can use related facts to multiply multiples of 10 and 100 e.g. 2x3=6 200x30=6000	26) I can multiply simple pairs of proper fractions and write the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = 1/8$	33) * I can round any whole number to a required degree of accuracy.	11) I can identify common factors, common multiples and prime numbers, with increasingly large numbers.	32) I can round and estimate as a means of predicting and checking the order of magnitude of my answers to a decimal calculation.
23) * I can use long multiplication to multiply THTU or HTU x TU.	27) I can add and subtract fractions and mixed numbers with different denominators by finding equivalent denominators before calculating then simplifying.	34) I can read, write order and compare numbers up to 10 000 000 and determine the value of each digit.	12) I can solve calculations that require me to understand the order of operations: BODMAS/BIDMAS.	33) * I can check that my answer, in all calculations, is reasonable.
Division	28) * I can compare and order any set of fractions, proper or improper, or mixed numbers including those with different denominators.	**Measures**	13) I can solve missing number problems that require me to use my knowledge of BODMAS/BIDMAS e.g $a(2^3 + 3) = 100 - 1$	34) * I can solve addition and subtraction **multi-step** problems in context, with 3, 4 or 5 digit numbers, deciding which operations to use and what order to use them in to solve the given problem.
16) I can use written division methods where the answer has up to 2 decimal places.		23) I can convert between miles and km using the scaling up or down method based on 5 miles = 8km.	14) I can solve missing calculation problems when using addition, subtraction, multiplication and division calculations.	
17) * I can divide numbers up to 4 digits by a 2 digit whole number using long division.	29) I can associate a fraction with division and calculate decimal fraction equivalents e.g. divide the numerator by the denominator to find the decimal equivalent.	24) I can recognise when it is possible to use formulae to calculate either the area or volume of a shape.	**Decimals**	**Perimeter and Area**
			15) I can round answers accurately. E.g. 12.37 ⟶ 12.4	10) I can recognise when it is possible to use formulae to calculate area.
18) I can divide numbers up to 4 digits by a 2 digit whole number using short division.	30) I can simplify fractions using common factors and use common multiples to express fractions in the same denomination.	25) I can calculate, estimate and compare the volume of cubes and cuboids using standard units e.g. cm3.	16) I can calculate more complex decimal equivalents such as 3/8 = 0.375 using my understanding of the equivalence between fractions and decimals.	11) I can calculate the area of parallelograms and triangles.
19) I can use written division methods (bus stop includes working beyond the decimal point rather than remainder) where the answer has 2 decimal places.		26) * I can solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimal places	17) *I can associate a fraction with division and calculate decimal equivalents of common fractions such as halves, quarters and fifths.	12) I can investigate relationships between area and perimeter e.g. shapes with the same area can have different perimeters and vice versa.

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Division (continued)	Shape	Measures (continued)	Decimals (continued)	Algebra
20) When solving division problems, I can recognise remainders as whole number remainders, fractions, or by rounding, interpreting remainders according to the context of the problem.	25) I can recognise vertically opposite angles and use this to calculate missing angles	27) * I can use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places (mm, cm, m, km,g, kg, ml, cl, l)	18) I can identify, read and write the value of each digit in numbers with 3 decimal places.	1) I can list all the possible combinations of two variables.
Statistics	26) I can illustrate and name parts of a circle including radius, diameter and circumference and know that diameter is twice the radius.	**Position and Direction**	19) * I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places.	2) * I can find pairs of numbers that satisfy an equation with two unknowns.
			Ratio and Proportion	3) * I can express missing number problems using algebra.
18) * I can use my knowledge of finding mean to work backwards to find out a missing number from a set of data when the mean is given.	27* I can compare and classify geometric shapes based on their size and properties and can find unknown angles in any triangle, quadrilateral or regular polygon.	11) I can predict missing co-ordinates using the properties of shapes.	4) * I can divide or multiply a quantity in a given ratio (recognising the proportional increase or decrease).	4) I can make up and describe linear number sequences and make generalisations about number patters and express them algebraically. This will help me to predict the nth.
19) * I can draw or complete a pie chart, showing my understanding of a pie chart being 360° and using my knowledge of fractions or percentages to work out angles required on a pie chart.			5) I can identify that a problem can be written as a ratio and solve problems using this relationship by recognising what needs to be scaled up or down in line with the given ratio.	5) * I can solve a variety of number problems using formulae and algebraic equations.
20) * I can solve problems using the data from line graphs (including conversion graphs) and pie charts.	28) I can recognise, describe and build simple 3D shapes including making nets.	12) *I can reflect simple shapes in the axes.	6) I can solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts.	
	29) *I can accurately draw 2D shapes using given angles and dimensions on a square grid using a protractor/ ruler etc	13) *I can draw and translate simple shapes on a 4 quadrant grid.	7) I can solve problems involving the calculation of percentages (for example, of measures, such as 15% of £360).	
		14) *I can label the axes of a grid in all 4 quadrants and describe a coordinate position on the grid.	8) I can solve problems involving similar shapes where the scale factor is known or can be found.	
			9) I can explain percentage comparisons between two amounts verbally and in writing e.g. describe why 1% of a total amount is greater or lesser than the same percentage of a smaller amount	