

YEAR 6 Maths Long Term Plan Overview



<p style="text-align: center;"><u>Place Value</u></p> <ul style="list-style-type: none"> I can use negative numbers in context and calculate intervals across zero I can round any whole number to a required degree of accuracy I can read, write order and compare numbers up to 10,000,000 and determine the value of each digit 	<p style="text-align: center;"><u>Properties of Number</u></p> <ul style="list-style-type: none"> I can express missing number patterns algebraically I can use simple formulae I can generate and describe linear number sequences I can explore the order of operations using brackets I can identify common factors, common multiples and prime numbers, with increasingly large numbers 	<p style="text-align: center;"><u>Addition</u></p> <ul style="list-style-type: none"> 6A.5 - I can use column addition to add decimal numbers with up to 3 decimal places 6A.4 - I can add use mental strategies to add decimal numbers 6A.3 - I can add positive number to negative numbers 6A.2 - I can use number bonds to 100 to work out related facts (e.g. $3.46+0.54$) 6A.1 - I can work out quickly number bonds to 1000 	<p style="text-align: center;"><u>Subtraction</u></p> <ul style="list-style-type: none"> 6S.3 - I can use efficient written subtraction with numbers with upto 3 decimal places 6S.2 - I can use mental strategies to subtract decimal numbers 6S.1 - I can work out number bonds to 1000 quickly
<p style="text-align: center;"><u>Multiplication</u></p> <ul style="list-style-type: none"> 6M.5 - I can use long multiplication to multiply a 2-digit number by a number with up to 4-digits 6M.4 - I can multiply mentally by near multiples of 100 (e.g. 67×199 as $(67 \times 200) - 67$) 6M.3 - I can multiply 2 place decimals by 1 digit numbers using partitioning 6M.2 - I can use doubling and halving to multiply by 2, 4, 8, 5, 20 and 25 6M.1 - I can use related multiplication facts to multiply 2 place decimals e.g. $0.03 \times 6 = 0.18$ 	<p style="text-align: center;"><u>Division</u></p> <ul style="list-style-type: none"> 6D.6 - I can express a quotient as a fraction, decimal or rounded according to context 6D.5 - I can use long division to divide 3-digit and 4-digit numbers by 'friendly' 2-digit numbers 6D.4 - I can use short division to divide a number with upto 4 digits by a 1-digit or 2-digit number 6D.3 - I can halve decimal numbers with up to 2 decimal places using partitioning e.g. half of 36.86 6D.2 - I can identify common factors to help with mental division e.g. $438 \div 6$ is $219 \div 3$ which is 73 6D.1 - I can divide 1 and 2 place decimals by 10 and less using know facts e.g. $2.4 \div 6 = 0.4$; $0.65 \div 5 = 0.13$; $\pounds 6.11 \div 3 = \pounds 2.11$ 	<p style="text-align: center;"><u>Fractions</u></p> <ul style="list-style-type: none"> I can divide proper fractions by a whole number e.g. $1/3$ divided by 2 = $1/6$ I can multiply simple pairs of proper fractions and write the answer in its simplest form e.g. $1/4 \times 1/2 = 1/8$ I can add and subtract fractions and mixed numbers with different denominators using the idea of equivalence I can compare and order any set of fractions, proper or improper, or mixed numbers including those with different denominators 	<p style="text-align: center;"><u>Decimals</u></p> <ul style="list-style-type: none"> I can round answers with a specific degree of accuracy (where this has been specified) I can calculate more complex decimal equivalents such as $3/8 = 0.375$ I can associate a fraction with division and calculate decimal equivalents of common fractions such as halves, quarters and fifths
<p style="text-align: center;"><u>Problem Solving</u></p> <ul style="list-style-type: none"> I can solve a variety of number problems using formulae and algebraic equations I can find pairs of numbers that satisfy an equation with two unknowns I can express missing number problems algebraically I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts I can round and estimate as a means of predicting and checking the order of magnitude of my answers to a decimal calculation I consistently check the reasonableness of my answer in all calculations 	<p style="text-align: center;"><u>Percentages and Ratio</u></p> <ul style="list-style-type: none"> I can divide a quantity in a given ratio (recognising the proportion as a fraction of the whole) I can identify that a problem can be written as a ratio and solve problems using this relationship by scaling up (multiplication) or down (division) I can solve problems involving similar shapes where the scale factor is known or can be found I can recall and use equivalence between fractions, decimals and % to solve problems e.g. 10% of $\pounds 5.00$ or 50% of the team 	<p style="text-align: center;"><u>Measurement</u></p> <ul style="list-style-type: none"> I can convert between miles and km I can recognise when it is possible to use formulae to calculate volume I can calculate, estimate and compare volume of cubes and cuboids using standard units e.g. cm^3 I can solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimal places I can use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places 	<p style="text-align: center;"><u>Shape</u></p> <ul style="list-style-type: none"> I can recognise vertically opposite angles and use this to calculate missing angles I can illustrate and name parts of a circle including radius, diameter and circumference and know that diameter is twice the radius 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 I can recognise, describe and build simple 3D shapes including making nets I can accurately draw 2D shapes using given angles and dimensions
<p style="text-align: center;"><u>Position and Direction</u></p> <ul style="list-style-type: none"> I can predict missing co-ordinates using the properties of shapes (e.g kite, parallelograms) I can reflect simple shapes in the axes I can draw and translate simple shapes on a 4 quadrant grid I can label the axes of a grid in all 4 quadrants and describe a position on the grid 	<p style="text-align: center;"><u>Perimeter and Area</u></p> <ul style="list-style-type: none"> I can calculate the area of parallelograms and triangles I can calculate, estimate and compare volumes of cubes and cuboids using standard units 	<p style="text-align: center;"><u>Statistics</u></p> <ul style="list-style-type: none"> I can calculate the mean as an average and understand when it is appropriate to find the mean of a set of data I can read and interpret linear proportional graphs (e.g. speed) I can construct a pie chart max assessments: 2 I can interpret a pie chart 	