

Year 5

Number and Place Value

To read, write order and compare (< >) numbers up to 1,000,000 and know the value of an underlined digit

To count forwards and backwards in steps of 10,000 and 1000 from any given number up to 1,000,000

To find the difference between whole and negative numbers and calculate through zero, using number line if needed

To round any whole number to 10,100,1000,10,000 and 100,000

To solve problems using knowledge and understanding of number and place value

To read roman numerals to 1000 (M) and recognise years written in roman numerals

To create, extend, find the rule for and find missing terms in number sequences involving whole numbers, negative numbers, fractions and decimals

To identify multiples of numbers and common multiples (24 is a multiple of 12 and 6)

To identify factor pairs of a given number and know that prime numbers always only have 2 factors, themselves and 1

To know all prime numbers up to 19 and establish if a number up to 100 is prime or not

Addition and Subtraction

To perform mental calculations involving mixed operations and large numbers

To solve multi-step problems involving all 4 operations

To use column addition to add numbers, including large numbers and decimals

To use column subtraction to subtract numbers, including large numbers and decimals

To know that addition is commutative, subtraction is not and they are inversely related

To add and subtract positive and negative numbers, using a number line if necessary

Emerging = 1-50% of number and 1-50% of everything else **Developing**= 51-99 % of number and around 51-99 % of everything else
Secure = 100% of number and around 100% of other objectives (best fit)

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Maths

<p>To understand that numbers can be broken down into their prime factors</p> <p>To recognise and use square and cube numbers and the notation for these ($^3 2$)</p> <p>To use the equals sign as a balancing tool to indicate equivalence and solve missing number problems ($15+?=20-3$)</p>	
<p>Multiplication and Division</p>	<p>Fractions, Decimals and Percentages and Ratio and Proportion</p>
<p>To multiply and divide whole numbers and decimals by 10,100 and 1000</p> <p>To multiply multi-digit numbers (up to 4 digits) by 1 and 2 digit numbers, using short and long multiplication</p> <p>To divide multi-digit numbers (up to 4 digits) by a 1 digit number, using 'bus stop' method and 'chunking' method for longer division</p> <p>To use a written method of division and give answer with decimal remainder (initially in the context of money and measures)</p> <p>To divide numbers and give remainders as whole numbers and fractions</p> <p>To perform mental calculations involving mixed operations and large numbers</p> <p>To solve multi-step problems involving all 4 operations</p> <p>To know all multiplication tables and related division facts</p> <p>To work out a whole amount when given a fraction of an amount</p> <p>To know that multiplication is commutative, division is not and they are inversely related</p>	<p>To order fractions with the same and with different denominators (denominators are multiples of the same number)</p> <p>To identify equivalent fractions, including tenths and hundredths</p> <p>To convert improper fractions into mixed numbers and vice versa</p> <p>To add and subtract fractions with the same denominator and denominators that are multiples of the same number</p> <p>To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</p> <p>To read and write decimal numbers as fractions (eg. $0.71 = 71/100$)</p> <p>To know the equivalence between 0.1 and $1/10$, 0.01 and $1/100$ and 0.001 and $1/1000$</p> <p>To round decimals to the nearest whole and to 1 dp</p> <p>To read, write, order and compare numbers with up to 3 dp</p>

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	<p>To know that percent means 'out of 100' and show a percentage as a fraction of 100 (45%=45/100)</p> <p>To know decimal and percentage equivalents for a half, a quarter, three quarters, one fifth, one tenth</p>
Measure	Geometry
<p>To be able to convert units of measure(mm-cm, cm-m, m-km, g-kg, ml-l mins-hrs, and vice-versa)</p> <p>To solve problems involving the conversion of measures</p> <p>To know approximate equivalences between inches and cm/mm, pounds and grams/kilograms, pints and litres/millilitres</p> <p>To estimate the volume of cubes and cuboids, using cubes to build them</p> <p>To calculate the perimeter of squares, rectangles and compound shapes in cm and m</p> <p>To calculate the area of squares and rectangles using cm^2 and m^2</p> <p>To estimate the area of irregular shapes</p> <p>To solve problems involving measures, using all 4 operations</p> <p>To read, write and convert time between analogue and digital 12 and 24 hour clocks</p>	<p>To name and describe 3d shapes (from 2d pictures of them) and their properties</p> <p>To know angles are measured in degrees and to estimate and compare acute, right, obtuse and reflex angles</p> <p>To draw given angles and measure them in degrees</p> <p>To identify 2d shapes and their properties and to know the difference between regular and irregular shapes</p> <p>To find missing lengths and angles in rectangles</p> <p>To calculate missing angles on lines, around a point and in 90 degree angles that has been bisected</p> <p>To draw lines to the nearest mm</p> <p>To describe positions on a 4-quadrant co-ordinate grid</p> <p>To translate shapes on a co-ordinate grid (reflection and translation), knowing the shape hasn't changed</p>

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To solve problems involving converting from hours to minutes, minutes to seconds, years to months and weeks to days	
Algebra	Statistics
	To solve comparison, sum and difference problems using information presented in a line graph To complete, read and interpret information in tables, including timetables

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