

MATHEMATICS

Year Group	Key Vocabulary	Place Value	Addition/Subtraction	Multiplication/Division	Fractions, Decimals & Percentages	Ratio, proportion & algebra	Wider Opportunities and Experiences
KS3	Square root Cancellation Power Cube root Recurring decimal	<p>Year 6</p> <ul style="list-style-type: none"> Use negative numbers in context and calculate intervals across 0 <p>Year 6</p> <ul style="list-style-type: none"> Round any whole number to a required degree of accuracy 	<p>Year 6</p> <ul style="list-style-type: none"> Explore the order of operations using brackets 	<p>Year 6</p> <ul style="list-style-type: none"> Identify common factors, common multiples and prime numbers <p>Year 6</p> <ul style="list-style-type: none"> Perform mental calculations, including with mixed operations and large numbers 	<p>Year 6</p> <ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denominators <p>Year 6</p> <ul style="list-style-type: none"> Compare and order fractions using fractions >1 <p>Year 6</p> <ul style="list-style-type: none"> J. Fractions with different denominators and mixed numbers using the concept of equivalent fractions 	<p>Year 6</p> <ul style="list-style-type: none"> Solve problems involving the relative size of 2 quantities, where missing values can be found by using integer multiplication and division facts <p>Year 6</p> <ul style="list-style-type: none"> Solve problems involving further similar shapes where the scale factor is known or can be found 	<p>• School enterprise day</p> <p>• Certificates to show children's achievements</p> <p>• Working collaboratively on a challenge or investigation</p> <p>• Learning how to pay water bills and how habits can be changed</p>
		<p>Year 5</p> <ul style="list-style-type: none"> Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit <p>Year 5</p> <ul style="list-style-type: none"> Describe in words the term-to-term rule for a sequence <p>Year 5</p> <ul style="list-style-type: none"> Continue sequences including fractions <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use square numbers and cube numbers and the respective notations <p>Year 5</p> <ul style="list-style-type: none"> Read Roman numerals to 1000 and recognise years written in Roman numerals <p>Year 5</p> <ul style="list-style-type: none"> Interpret negative numbers in context, count forwards and backwards with positive & negative whole numbers including through 0 	<p>Year 5</p> <ul style="list-style-type: none"> Solve $\frac{1}{2}$ multi-step problems in context, deciding which operations and methods to use and why <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division <p>Year 5</p> <ul style="list-style-type: none"> Use their knowledge of the order of operations to carry out calculations involving the 4 operations <p>Year 5</p> <ul style="list-style-type: none"> Use estimation to check answers to calculations and determine, in the context, an appropriate degree of accuracy 	<p>Year 5</p> <ul style="list-style-type: none"> Write numbers up to 4-digits by 2-digit numbers using an appropriate formal written method <p>Year 5</p> <ul style="list-style-type: none"> Identify multiples & factors including finding all factor pairs of a number & common factors of 2 numbers <p>Year 5</p> <ul style="list-style-type: none"> Know & use the vocabulary of prime numbers, prime factors & composite (non-prime) numbers <p>Year 5</p> <ul style="list-style-type: none"> Establish whether a number up to 100 is prime and recall number to 19 <p>Year 5</p> <ul style="list-style-type: none"> $\frac{1}{2}$ numbers mentally drawing upon known facts up to 12 x 12 <p>Year 5</p> <ul style="list-style-type: none"> $\frac{1}{2}$ whole numbers by 10, 100 and 1000 and those including decimals <p>Year 5</p> <ul style="list-style-type: none"> Multiply numbers up to 4-digits by 3- or 2-digit numbers using formal written methods including long multiplication <p>Year 5</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by 2-digit numbers using chunking method <p>Year 5</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by a 1-digit number using formal written method and interpret remainders appropriately for the context <p>Year 5</p> <ul style="list-style-type: none"> Solve problems using knowledge of factors, multiples, squares and cubes <p>Year 5</p> <ul style="list-style-type: none"> Solve problems combining all 4 operations including understanding the meaning of the equal signs <p>Year 5</p> <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 times tables 	<p>Year 5</p> <ul style="list-style-type: none"> Multiply simple pairs of proper fractions, writing the answer in its simplest form <p>Year 5</p> <ul style="list-style-type: none"> Divide proper fractions by whole numbers <p>Year 5</p> <ul style="list-style-type: none"> Associate fractions with division <p>Year 5</p> <ul style="list-style-type: none"> Multiply simple pairs of proper fractions, writing the answer in its simplest form <p>Year 5</p> <ul style="list-style-type: none"> Calculate decimal fractions equivalents for simple fractions <p>Year 5</p> <ul style="list-style-type: none"> Identify the value of each digit in numbers given to 10p and multiply and divide numbers by 10, 100 and 1000 giving answers up to 10p <p>Year 5</p> <ul style="list-style-type: none"> Use written division methods in cases where the answers has up to 2dp <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving the calculation of percentages and then use percentages for comparison <p>Year 5</p> <ul style="list-style-type: none"> Recall and use equivalences between simple fractions, decimal and percentages including in different contexts <p>Year 5</p> <ul style="list-style-type: none"> Solve problems which require answers to be rounded to specific degrees of accuracy <p>Year 5</p> <ul style="list-style-type: none"> Compare and order fractions whose denominators are all multiples of the same number <p>Year 5</p> <ul style="list-style-type: none"> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths <p>Year 5</p> <ul style="list-style-type: none"> Recognise mixed numbers and improper fractions and convert form one to the other and write mathematical statements >1 as a mixed number <p>Year 5</p> <ul style="list-style-type: none"> $\frac{1}{2}$ fractions with the same denominator and denominators that are multiples of the same number <p>Year 5</p> <ul style="list-style-type: none"> Multiply proper fractions and mixed numbers by whole numbers <p>Year 5</p> <ul style="list-style-type: none"> Read and write decimals as fractions <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use thousandths and relate to tenths, hundredths and decimal equivalents <p>Year 5</p> <ul style="list-style-type: none"> Round decimals with 2dp to the nearest whole number and to 1dp <p>Year 5</p> <ul style="list-style-type: none"> Read, write and compare numbers with up to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving numbers up to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Recognise per cent symbol and understand that per cent relates to 'number of parts per 100' and write percentages as a fraction with denominator of 100 and as a decimal <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving % and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$, $\frac{4}{5}$ and fractions with denominator of a multiple of 10 and 25 <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving simple fractions and problems involving simple fractions and problems involving simple fractions <p>Year 5</p> <ul style="list-style-type: none"> Count up and down in hundredths <p>Year 5</p> <ul style="list-style-type: none"> Recognise that hundredths arise from dividing an object into one hundred equal parts, dividing by one hundred and dividing tenths by ten <p>Year 5</p> <ul style="list-style-type: none"> Common and show, using diagrams, families of common equivalent fractions <p>Year 5</p> <ul style="list-style-type: none"> Simply fractions <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving increasingly harder fractions to calculate quantities, fractions to divide quantities including non-unit fractions where the answer is a whole number <p>Year 5</p> <ul style="list-style-type: none"> Addition/subtraction fractions with the same denominator including beyond 1 <p>Year 5</p> <ul style="list-style-type: none"> Recognise and write decimal equivalents of any number of tenths or hundredths and $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ <p>Year 5</p> <ul style="list-style-type: none"> Round decimals with 1dp to the nearest whole number <p>Year 5</p> <ul style="list-style-type: none"> Compare numbers with the same number of decimal places up to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Solve simple measure and money problems involving fractions and decimals to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Count up and down in tenths <p>Year 5</p> <ul style="list-style-type: none"> Recognise that tenths arise from dividing an object into ten equal parts and dividing 1-digit numbers or quantities by 10 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order unit fractions including on a number line going beyond 1 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order fractions with the same denominator <p>Year 5</p> <ul style="list-style-type: none"> Recognise, and show with diagrams, equivalent fractions with small denominators <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use fractions as numbers—unit fractions and non-unit fractions with small denominators <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within a whole <p>Year 5</p> <ul style="list-style-type: none"> Understand the relation between unit fractions and division <p>Year 5</p> <ul style="list-style-type: none"> Solve problems that involve all the above <p>Year 5</p> <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal part of an object, shape or quantity <p>Year 5</p> <ul style="list-style-type: none"> Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity 		
6	Numbers to ten million Brackets Indices Division Multiplication addition Subtraction Degree of accuracy Simplify Linear number sequence Substitute Variables Known values Factorise Prime factor Digit total Equation Order of operations	<p>Year 6</p> <ul style="list-style-type: none"> Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 <p>Year 6</p> <ul style="list-style-type: none"> Compare and order numbers up to 1,000,000 <p>Year 6</p> <ul style="list-style-type: none"> Count forwards and backwards in steps of power of 10 for any given number up to 1,000,000 <p>Year 6</p> <ul style="list-style-type: none"> Round any number to the nearest 10, 100 and 1000 <p>Year 6</p> <ul style="list-style-type: none"> Count backwards through 0 to include negative numbers <p>Year 6</p> <ul style="list-style-type: none"> Identify, estimate and represent numbers using different representations including measures <p>Year 6</p> <ul style="list-style-type: none"> Compare and order numbers beyond 1000 <p>Year 6</p> <ul style="list-style-type: none"> Recognise place value of each digit in 4-digit numbers <p>Year 6</p> <ul style="list-style-type: none"> Find 1000 more or less than any number <p>Year 6</p> <ul style="list-style-type: none"> Count in 6s, 7s, 9s, 25s and 100s 	<p>Year 6</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <p>Year 6</p> <ul style="list-style-type: none"> Use rounding to check answers and determine (in the context of the problem) levels of accuracy <p>Year 6</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4-digits including formal written methods <p>Year 6</p> <ul style="list-style-type: none"> Add and subtract numbers mentally with increasingly large numbers <p>Year 6</p> <ul style="list-style-type: none"> Partition numbers in different ways <p>Year 6</p> <ul style="list-style-type: none"> Solve problems, including missing number problems using number facts, place value and more complex addition/subtraction <p>Year 6</p> <ul style="list-style-type: none"> Estimate answers to calculations and use inverse operations to check answers <p>Year 6</p> <ul style="list-style-type: none"> Add/subtract numbers up to 4-digits using formal written methods <p>Year 6</p> <ul style="list-style-type: none"> Add and subtract numbers mentally including: $HTO \pm O$, $HTO \pm H$ <p>Year 6</p> <ul style="list-style-type: none"> Recognise and use the inverse relationship between add/subtract and use to check calculations and solve missing number problems <p>Year 6</p> <ul style="list-style-type: none"> Solve problems with addition/subtraction using concrete objects and pictures involving number, quantity and measure <p>Year 6</p> <ul style="list-style-type: none"> Show that addition of 2 numbers can be done in any order (commutative) and subtraction cannot <p>Year 6</p> <ul style="list-style-type: none"> Add/subtract numbers using concrete objects, pictures and mentally including $TD \pm O$, $TD \pm T$, $TD \pm D$, $CH \pm O$ <p>Year 6</p> <ul style="list-style-type: none"> Recall and use addition and number facts to 20 fluently and derive & use related facts to 20 <p>Year 6</p> <ul style="list-style-type: none"> Solve missing number problems <p>Year 6</p> <ul style="list-style-type: none"> Solve 1-step problems involving addition/subtraction using concrete objects and pictures <p>Year 6</p> <ul style="list-style-type: none"> Add/subtract 1-digit and 2-digit numbers to 20 including 0 <p>Year 6</p> <ul style="list-style-type: none"> Know number bonds and related subtraction facts to 20 <p>Year 6</p> <ul style="list-style-type: none"> Identify 1 more/less up to 100 <p>Year 6</p> <ul style="list-style-type: none"> Automatically recall number bonds for numbers 0-5 and some to 10 <p>Year 6</p> <ul style="list-style-type: none"> Automatically recall (without reference to rhymes, counting or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10, including double facts <p>Year 6</p> <ul style="list-style-type: none"> Explore and represent patterns with numbers up to 20, including evens and odds. Double facts and how quantities can be distributed evenly 	<p>Year 6</p> <ul style="list-style-type: none"> Use estimation to check answers to calculations and determine, in the context, an appropriate degree of accuracy <p>Year 6</p> <ul style="list-style-type: none"> Identify multiples & factors including finding all factor pairs of a number & common factors of 2 numbers <p>Year 6</p> <ul style="list-style-type: none"> Know & use the vocabulary of prime numbers, prime factors & composite (non-prime) numbers <p>Year 6</p> <ul style="list-style-type: none"> Establish whether a number up to 100 is prime and recall number to 19 <p>Year 6</p> <ul style="list-style-type: none"> $\frac{1}{2}$ numbers mentally drawing upon known facts up to 12 x 12 <p>Year 6</p> <ul style="list-style-type: none"> $\frac{1}{2}$ whole numbers by 10, 100 and 1000 and those including decimals <p>Year 6</p> <ul style="list-style-type: none"> Multiply numbers up to 4-digits by 3- or 2-digit numbers using formal written methods including long multiplication <p>Year 6</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by 2-digit numbers using chunking method <p>Year 6</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by a 1-digit number using formal written method and interpret remainders appropriately for the context <p>Year 6</p> <ul style="list-style-type: none"> Solve problems using knowledge of factors, multiples, squares and cubes <p>Year 6</p> <ul style="list-style-type: none"> Solve problems combining all 4 operations including understanding the meaning of the equal signs <p>Year 6</p> <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 times tables <p>Year 6</p> <ul style="list-style-type: none"> Use place value, known and derived facts to $\frac{1}{2}$ mentally, including multiplying by 0.8, 1, dividing by 1, multiplying 3 numbers together <p>Year 6</p> <ul style="list-style-type: none"> Recognise and use factor pairs and commutativity in mental calculations <p>Year 6</p> <ul style="list-style-type: none"> Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout <p>Year 6</p> <ul style="list-style-type: none"> Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1-digit <p>Year 6</p> <ul style="list-style-type: none"> Solve problems of integer scaling and correspondence <p>Year 6</p> <ul style="list-style-type: none"> Use multiplication and division facts for the 2, 5 and 10 times tables <p>Year 6</p> <ul style="list-style-type: none"> Calculate and write mathematical statements using $\frac{1}{2}$ for $\frac{1}{2}$ and 10 times tables and their related division facts <p>Year 6</p> <ul style="list-style-type: none"> Show that multiplication of 2 numbers can be done in any order (commutative) but division cannot <p>Year 6</p> <ul style="list-style-type: none"> Solve problems involving $\frac{1}{2}$ using materials, arrays, repeated addition, mental methods and $\frac{1}{2}$ facts <p>Year 6</p> <ul style="list-style-type: none"> Solve 1-step problems involving multiplication/division using objects, pictures and arrays with support <p>Year 6</p> <ul style="list-style-type: none"> Find the effect of a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths <p>Year 6</p> <ul style="list-style-type: none"> Round decimals with 1dp to the nearest whole number <p>Year 6</p> <ul style="list-style-type: none"> Compare numbers with the same number of decimal places up to 3dp <p>Year 6</p> <ul style="list-style-type: none"> Solve simple measure and money problems involving fractions and decimals to 3dp <p>Year 6</p> <ul style="list-style-type: none"> Count up and down in tenths <p>Year 6</p> <ul style="list-style-type: none"> Recognise that tenths arise from dividing an object into ten equal parts and dividing 1-digit numbers or quantities by 10 <p>Year 6</p> <ul style="list-style-type: none"> Compare and order unit fractions including on a number line going beyond 1 <p>Year 6</p> <ul style="list-style-type: none"> Compare and order fractions with the same denominator <p>Year 6</p> <ul style="list-style-type: none"> Recognise, and show with diagrams, equivalent fractions with small denominators <p>Year 6</p> <ul style="list-style-type: none"> Recognise and use fractions as numbers—unit fractions and non-unit fractions with small denominators <p>Year 6</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within a whole <p>Year 6</p> <ul style="list-style-type: none"> Understand the relation between unit fractions and division <p>Year 6</p> <ul style="list-style-type: none"> Solve problems that involve all the above <p>Year 6</p> <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal part of an object, shape or quantity <p>Year 6</p> <ul style="list-style-type: none"> Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity 	<p>• School enterprise day</p> <p>• Certificates to show children's achievements</p> <p>• Working collaboratively on a challenge or investigation</p> <p>• Design a meal with a given budget</p>		
		<p>Year 5</p> <ul style="list-style-type: none"> Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order numbers up to 1,000,000 <p>Year 5</p> <ul style="list-style-type: none"> Count forwards and backwards in steps of power of 10 for any given number up to 1,000,000 <p>Year 5</p> <ul style="list-style-type: none"> Round any number to the nearest 10, 100 and 1000 <p>Year 5</p> <ul style="list-style-type: none"> Count backwards through 0 to include negative numbers <p>Year 5</p> <ul style="list-style-type: none"> Identify, estimate and represent numbers using different representations including measures <p>Year 5</p> <ul style="list-style-type: none"> Compare and order numbers beyond 1000 <p>Year 5</p> <ul style="list-style-type: none"> Recognise place value of each digit in 4-digit numbers <p>Year 5</p> <ul style="list-style-type: none"> Find 1000 more or less than any number <p>Year 5</p> <ul style="list-style-type: none"> Count in 6s, 7s, 9s, 25s and 100s 	<p>Year 5</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <p>Year 5</p> <ul style="list-style-type: none"> Use rounding to check answers and determine (in the context of the problem) levels of accuracy <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4-digits including formal written methods <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract numbers mentally with increasingly large numbers <p>Year 5</p> <ul style="list-style-type: none"> Partition numbers in different ways <p>Year 5</p> <ul style="list-style-type: none"> Solve problems, including missing number problems using number facts, place value and more complex addition/subtraction <p>Year 5</p> <ul style="list-style-type: none"> Estimate answers to calculations and use inverse operations to check answers <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract numbers up to 4-digits using formal written methods <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract numbers mentally including: $HTO \pm O$, $HTO \pm H$ <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use the inverse relationship between add/subtract and use to check calculations and solve missing number problems <p>Year 5</p> <ul style="list-style-type: none"> Solve problems with addition/subtraction using concrete objects and pictures involving number, quantity and measure <p>Year 5</p> <ul style="list-style-type: none"> Show that addition of 2 numbers can be done in any order (commutative) and subtraction cannot <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract numbers using concrete objects, pictures and mentally including $TD \pm O$, $TD \pm T$, $TD \pm D$, $CH \pm O$ <p>Year 5</p> <ul style="list-style-type: none"> Recall and use addition and number facts to 20 fluently and derive & use related facts to 20 <p>Year 5</p> <ul style="list-style-type: none"> Solve missing number problems <p>Year 5</p> <ul style="list-style-type: none"> Solve 1-step problems involving addition/subtraction using concrete objects and pictures <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract 1-digit and 2-digit numbers to 20 including 0 <p>Year 5</p> <ul style="list-style-type: none"> Know number bonds and related subtraction facts to 20 <p>Year 5</p> <ul style="list-style-type: none"> Identify 1 more/less up to 100 <p>Year 5</p> <ul style="list-style-type: none"> Automatically recall number bonds for numbers 0-5 and some to 10 <p>Year 5</p> <ul style="list-style-type: none"> Automatically recall (without reference to rhymes, counting or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10, including double facts <p>Year 5</p> <ul style="list-style-type: none"> Explore and represent patterns with numbers up to 20, including evens and odds. Double facts and how quantities can be distributed evenly 				
5	Powers of 10 Factor pairs Common factor Common multiple Composite numbers, prime numbers, prime factors, square number, cubed number Proper fractions, improper fractions, mixed numbers Percentage, per cent Half, quarter, fifth, two fifths, four fifths Ratio Greater than or equal to Less than or equal to Formula Divisibility, divisible Ascending/descending order	<p>Year 5</p> <ul style="list-style-type: none"> Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order numbers up to 1,000,000 <p>Year 5</p> <ul style="list-style-type: none"> Count forwards and backwards in steps of power of 10 for any given number up to 1,000,000 <p>Year 5</p> <ul style="list-style-type: none"> Round any number to the nearest 10, 100 and 1000 <p>Year 5</p> <ul style="list-style-type: none"> Count backwards through 0 to include negative numbers <p>Year 5</p> <ul style="list-style-type: none"> Identify, estimate and represent numbers using different representations including measures <p>Year 5</p> <ul style="list-style-type: none"> Compare and order numbers beyond 1000 <p>Year 5</p> <ul style="list-style-type: none"> Recognise place value of each digit in 4-digit numbers <p>Year 5</p> <ul style="list-style-type: none"> Find 1000 more or less than any number <p>Year 5</p> <ul style="list-style-type: none"> Count in 6s, 7s, 9s, 25s and 100s 	<p>Year 5</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <p>Year 5</p> <ul style="list-style-type: none"> Use rounding to check answers and determine (in the context of the problem) levels of accuracy <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4-digits including formal written methods <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract numbers mentally with increasingly large numbers <p>Year 5</p> <ul style="list-style-type: none"> Partition numbers in different ways <p>Year 5</p> <ul style="list-style-type: none"> Solve problems, including missing number problems using number facts, place value and more complex addition/subtraction <p>Year 5</p> <ul style="list-style-type: none"> Estimate answers to calculations and use inverse operations to check answers <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract numbers up to 4-digits using formal written methods <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract numbers mentally including: $HTO \pm O$, $HTO \pm H$ <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use the inverse relationship between add/subtract and use to check calculations and solve missing number problems <p>Year 5</p> <ul style="list-style-type: none"> Solve problems with addition/subtraction using concrete objects and pictures involving number, quantity and measure <p>Year 5</p> <ul style="list-style-type: none"> Show that addition of 2 numbers can be done in any order (commutative) and subtraction cannot <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract numbers using concrete objects, pictures and mentally including $TD \pm O$, $TD \pm T$, $TD \pm D$, $CH \pm O$ <p>Year 5</p> <ul style="list-style-type: none"> Recall and use addition and number facts to 20 fluently and derive & use related facts to 20 <p>Year 5</p> <ul style="list-style-type: none"> Solve missing number problems <p>Year 5</p> <ul style="list-style-type: none"> Solve 1-step problems involving addition/subtraction using concrete objects and pictures <p>Year 5</p> <ul style="list-style-type: none"> Add/subtract 1-digit and 2-digit numbers to 20 including 0 <p>Year 5</p> <ul style="list-style-type: none"> Know number bonds and related subtraction facts to 20 <p>Year 5</p> <ul style="list-style-type: none"> Identify 1 more/less up to 100 <p>Year 5</p> <ul style="list-style-type: none"> Automatically recall number bonds for numbers 0-5 and some to 10 <p>Year 5</p> <ul style="list-style-type: none"> Automatically recall (without reference to rhymes, counting or other aids) number bonds to 5 (including subtraction facts) and some number bonds to 10, including double facts <p>Year 5</p> <ul style="list-style-type: none"> Explore and represent patterns with numbers up to 20, including evens and odds. Double facts and how quantities can be distributed evenly 	<p>Year 5</p> <ul style="list-style-type: none"> Use estimation to check answers to calculations and determine, in the context, an appropriate degree of accuracy <p>Year 5</p> <ul style="list-style-type: none"> Identify multiples & factors including finding all factor pairs of a number & common factors of 2 numbers <p>Year 5</p> <ul style="list-style-type: none"> Know & use the vocabulary of prime numbers, prime factors & composite (non-prime) numbers <p>Year 5</p> <ul style="list-style-type: none"> Establish whether a number up to 100 is prime and recall number to 19 <p>Year 5</p> <ul style="list-style-type: none"> $\frac{1}{2}$ numbers mentally drawing upon known facts up to 12 x 12 <p>Year 5</p> <ul style="list-style-type: none"> $\frac{1}{2}$ whole numbers by 10, 100 and 1000 and those including decimals <p>Year 5</p> <ul style="list-style-type: none"> Multiply numbers up to 4-digits by 3- or 2-digit numbers using formal written methods including long multiplication <p>Year 5</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by 2-digit numbers using chunking method <p>Year 5</p> <ul style="list-style-type: none"> Divide numbers up to 4-digits by a 1-digit number using formal written method and interpret remainders appropriately for the context <p>Year 5</p> <ul style="list-style-type: none"> Solve problems using knowledge of factors, multiples, squares and cubes <p>Year 5</p> <ul style="list-style-type: none"> Solve problems combining all 4 operations including understanding the meaning of the equal signs <p>Year 5</p> <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 times tables <p>Year 5</p> <ul style="list-style-type: none"> Use place value, known and derived facts to $\frac{1}{2}$ mentally, including multiplying by 0.8, 1, dividing by 1, multiplying 3 numbers together <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use factor pairs and commutativity in mental calculations <p>Year 5</p> <ul style="list-style-type: none"> Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving multiplying and adding including using the distributive law to multiply 2-digit numbers by 1-digit <p>Year 5</p> <ul style="list-style-type: none"> Solve problems of integer scaling and correspondence <p>Year 5</p> <ul style="list-style-type: none"> Use multiplication and division facts for the 2, 5 and 10 times tables <p>Year 5</p> <ul style="list-style-type: none"> Calculate and write mathematical statements using $\frac{1}{2}$ for $\frac{1}{2}$ and 10 times tables and their related division facts <p>Year 5</p> <ul style="list-style-type: none"> Show that multiplication of 2 numbers can be done in any order (commutative) but division cannot <p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving $\frac{1}{2}$ using materials, arrays, repeated addition, mental methods and $\frac{1}{2}$ facts <p>Year 5</p> <ul style="list-style-type: none"> Solve 1-step problems involving multiplication/division using objects, pictures and arrays with support <p>Year 5</p> <ul style="list-style-type: none"> Find the effect of a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths <p>Year 5</p> <ul style="list-style-type: none"> Round decimals with 1dp to the nearest whole number <p>Year 5</p> <ul style="list-style-type: none"> Compare numbers with the same number of decimal places up to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Solve simple measure and money problems involving fractions and decimals to 3dp <p>Year 5</p> <ul style="list-style-type: none"> Count up and down in tenths <p>Year 5</p> <ul style="list-style-type: none"> Recognise that tenths arise from dividing an object into ten equal parts, dividing 1-digit numbers or quantities by 10 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order unit fractions including on a number line going beyond 1 <p>Year 5</p> <ul style="list-style-type: none"> Compare and order fractions with the same denominator <p>Year 5</p> <ul style="list-style-type: none"> Recognise, and show with diagrams, equivalent fractions with small denominators <p>Year 5</p> <ul style="list-style-type: none"> Recognise and use fractions as numbers—unit fractions and non-unit fractions with small denominators <p>Year 5</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within a whole <p>Year 5</p> <ul style="list-style-type: none"> Understand the relation between unit fractions and division <p>Year 5</p> <ul style="list-style-type: none"> Solve problems that involve all the above <p>Year 5</p> <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal part of an object, shape or quantity <p>Year 5</p> <ul style="list-style-type: none"> Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity 	<p>• School enterprise day</p> <p>• Certificates to show children's achievements</p> <p>• Working collaboratively on a challenge or investigation</p> <p>• Look at spending habits and supermarket deals</p>		
		<p>Year 4</p> <ul style="list-style-type: none"> Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 <p>Year 4</p> <ul style="list-style-type: none"> Compare and order numbers up to 1,000,000 <p>Year 4</p> <ul style="list-style-type: none"> Count forwards and backwards in steps of power of 10 for any given number up to 1,000,000 <p>Year 4</p> <ul style="list-style-type: none"> Round any number to the nearest 10, 100 and 1000 <p>Year 4</p> <ul style="list-style-type: none"> Count backwards through 0 to include negative numbers <p>Year 4</p> <ul style="list-style-type: none"> Identify, estimate and represent numbers using different representations including measures <p>Year 4</p> <ul style="list-style-type: none"> Compare and order numbers beyond 1000 <p>Year 4</p> <ul style="list-style-type: none"> Recognise place value of each digit in 4-digit numbers <p>Year 4</p> <ul style="list-style-type: none"> Find 1000 more or less than any number <p>Year 4</p> <ul style="list-style-type: none"> Count in 6s, 7s, 9s, 25s and 100s 	<p>Year 4</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <p>Year 4</p> <ul style="list-style-type: none"> Use rounding to check answers and determine (in the context of the problem) levels of accuracy <p>Year 4</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4-digits including formal written methods				