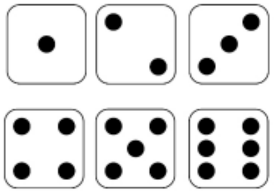
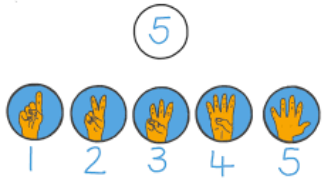
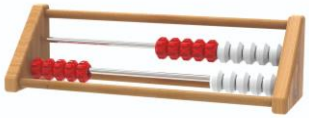
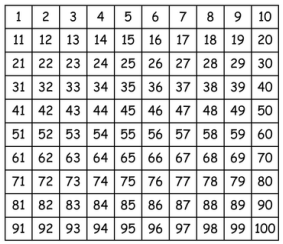
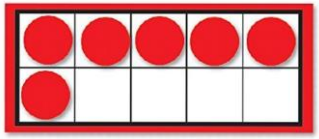
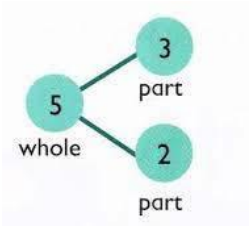
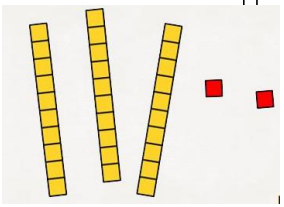
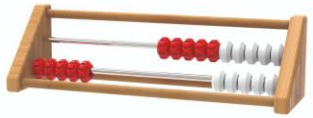
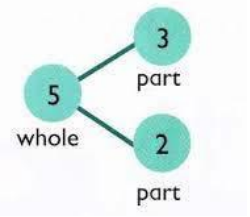
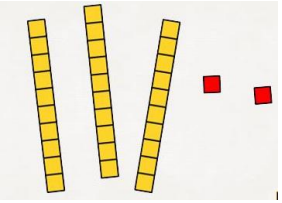
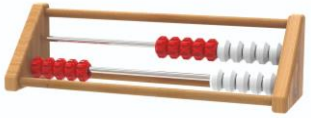
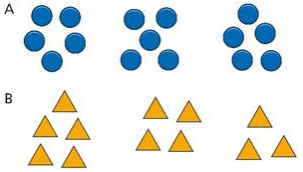
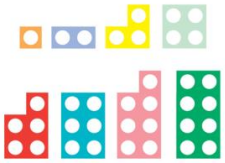
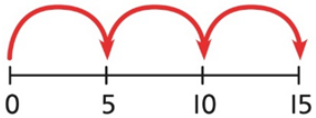
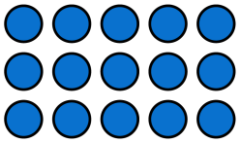
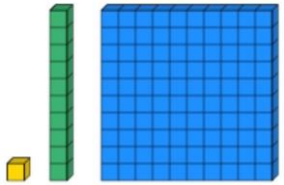
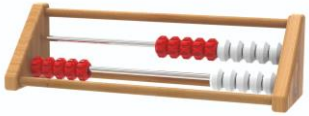
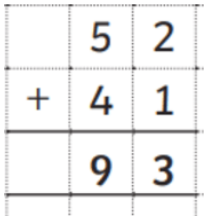
Year Group:	Key learning intentions (national curriculum):	How to support the learning:
EYFS	• Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. • In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. • ELG: Number Children at the expected level of development will: • Have a deep understanding of number to 10, including the composition of each number • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	Hungarian dice patterns     Fingers 5 and a bit structure also represented here with 5 on 1 hand and 'a bit' on the other hand
	•	
Year 1 Addition and subtraction (incl place value)	• Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • Represent and use number bonds and related subtraction facts within 20 • Add and subtract one-digit and two-digit numbers to 20, including zero • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.	 Rekenreks used to develop number sense within 5 and '5 and bit structure' and partitioning. Rekenreks used to develop number bonds to 10 and related facts; rekenreks to support '10 and a bit structure' to count numbers 10 – 20 Rekenreks to support subtraction from 10. E.g 12 – 5 = 10 – 5 5+ 2 = 7

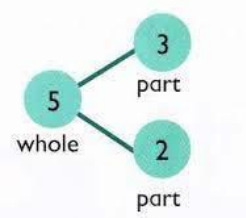
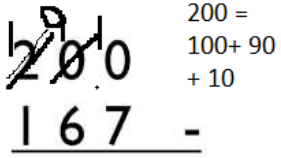
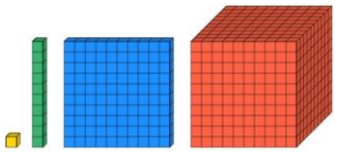
		Rekenreks also support subtracting to 'find ten' E.g 12 - 5 = 12 - 2 10 - 3 = 7 Children taught different methods so that they can become flexible with their choice of methods and develop their conceptual understanding  Number Lines to support ordinality of numbers and finding the difference between numbers including 1 more and 1 less  Number tracks and hundred used to develop cardinality and ordinality    Tens frame to support addition and subtraction of one-digit and two-digit numbers. Tens frame to support the 'teen' numbers and the '10 and a bit structure' (as well as the rekenreks) E.g 12 - 5 = 12 - 2 10 - 3 = 7

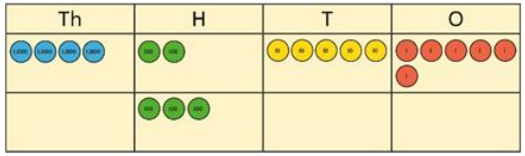
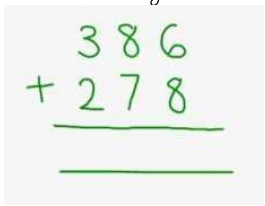
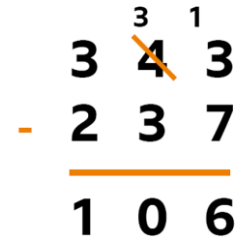
		 Part part whole structure to support relationship between addition and subtraction; exploring the relationship between addends and sums; also used to support missing parts  Sticks and bricks to secure place value understanding and allow children to being unitising with 10
Year 2 **Addition and Subtraction (incl place value)**	• Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward • Recognise the place value of each digit in a two-digit number (tens, ones) • Identify, represent and estimate numbers using different representations, including the number line • Compare and order numbers from 0 up to 100; use <, > and = signs Read and write numbers to at least 100 in numerals and in words Use place value and number facts to solve problems • Solve problems with addition and subtraction • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	 Rekenreks used to develop number sense within 5 and '5 and bit structure' and partitioning Rekenreks used to develop number bonds to 10 and related facts; rekenreks to support '10 and a bit structure' to count numbers 10 - 20 Rekenreks to support subtraction <u>from</u> 10 which can then be applied to multiples of 10 E.g 23 - 7 = 20 - 7 13 + 3 = 16 Rekenreks also support subtracting 'find ten' and then the rest. E.g 23 - 7 = 23 - 3 20 - 4 = 16  Number Lines to support ordinality of numbers and finding the difference between numbers; pupils need to begin to recognise and

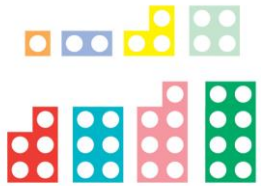
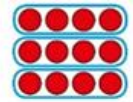
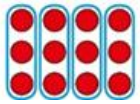
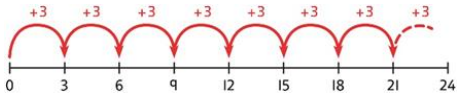
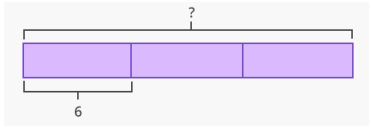
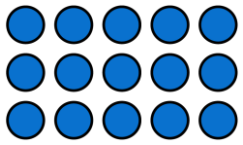
		learn when some strategies would be better than others and to become flexible with their maths. E.g 34-25 would be solved more efficiently when finding the difference as the number as close together  Part part whole structure to support relationship between addition and subtraction and the inverse; also used to support finding missing parts; and place value understanding E.g 5 = 3 and 2 50 = 30 and 20  Sticks and bricks used to consolidate place value understanding; children exposed to exchanging 1 tens for 10 ones in subtraction calculations; deines also support understanding of unitising in 10s. 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 100 200 300 400 500 600 700 800 900 10 20 30 40 50 60 70 80 90 1 2 3 4 5 6 7 8 9 Gattegno chart used to support place value
Year 1 Multiplication and Division	• Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. • Recognise, find and name a half as one of two equal parts of an object, shape or quantity • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	 Rekenreks to show the relationship between odd and even numbers

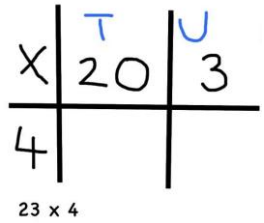
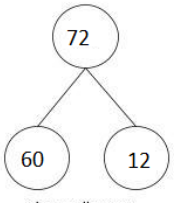
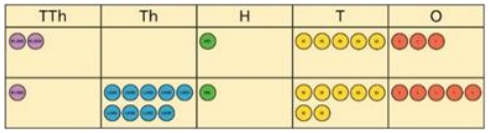
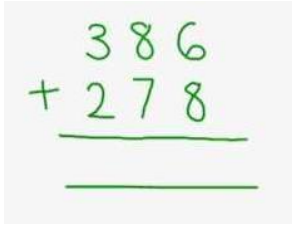
		 Images and concrete resources used to recognise equal and unequal groups  Children draw equal groups; also use arrays to support the idea of equal groups
Year 2 Multiplication and Division	• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	 Rekenreks to show the relationship between odd and even numbers; link this to equal and unequal groups  Children use concrete resources and also draw unequal and equal groups  Numicon and arrays to support multiplicative and additive relationships; also to develop unitising in 5s, 10s and 2s  Number lines used to support repeated addition

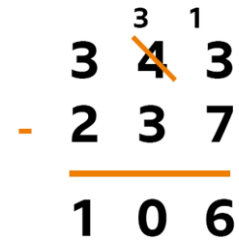
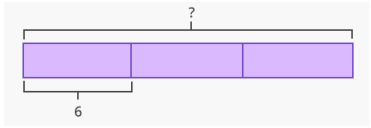
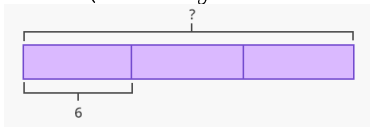
		 Arrays used to develop the x sign and the cumulative law.
Year 3 Addition and subtraction (incl place value)	• Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • Compare and order numbers up to 1000 • Identify, represent and estimate numbers using different representations • Read and write numbers up to 1000 in numerals and in words solve number problems and practical problems involving these ideas • Pupils should be taught to: add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds • Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • Estimate the answer to a calculation and use inverse operations to check answers • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	 Dienes further support and extend place value understanding and knowledge of 1 ten = 10 ones; 10 tens = 1 hundred; 120 = 12 tens etc...and further develop unitising into hundreds  Number tracks used to support cardinality with hundreds and being able to count forwards and backwards  Rekenreks used to consolidate learning (if needed) of year 1 and 2 number facts to ensure automaticity.  Column method introduced as an efficient method but made explicitly clear to the children, then when like values can be added/subtracted mentally then it is more efficient to do so; friendly values however are used to model with to ensure a deep understanding for the children

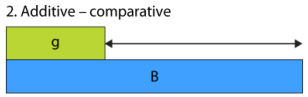
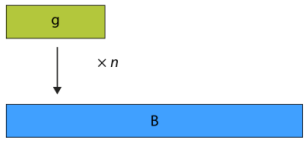
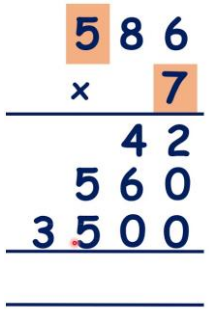
		When children are exchanging (or redistributing the values, ensure that units are carried underneath the line) E.g 52 + 41 – can be done mentally – no need for column But 37 + 45 may be more difficult (although children still need to be aware of how to quickly add 7+5 without using their fingers)  Part part whole model used to further support inverse operations and to support children finding missing parts  Pupils taught column subtraction but can see and understand how the 200 (or the minuend) has been redistributed so it can be subtracted from the subtrahend
Year 4 Addition and subtraction (incl place value)	• Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Count backwards through zero to include negative numbers Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers • Read Roman numerals to 100 (I to C) and know that over time,	 Dienes used to further support and secure place value understanding and values into the thousands; develops further understanding of unitising in the thousands

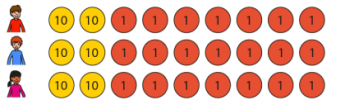
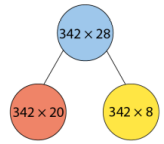
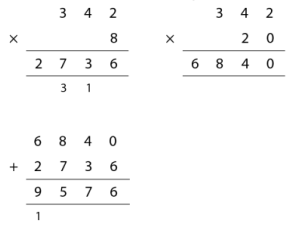
	the numeral system changed to include the concept of zero and place value. • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse operations to check answers to a calculation • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	 Place value counters used to further develop unitising and place value understanding; also used to develop addition and subtraction understanding  Compact column addition method; units carried underneath the line; pupils explicitly taught the value of digits carried underneath the line  Compact column subtraction, explicit teaching reference made to the redistribution of columns **e.g** 43 = 30 + 13 so the subtrahend can be subtracted from the minuend to find the difference- this needs to developed fully and supported with the use of dienes so that children can physically see the link

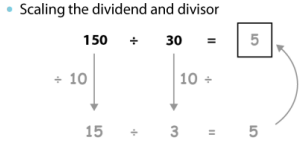
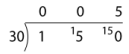
Year 3 Multiplication and Division	• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know • Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	  Numicon and arrays to support multiplicative relationships; to support automaticity with new times tables.   Number lines used to expose repeated addition within x tables and how this can then link to the x symbol.  Bar models are introduced to show the relationship between parts and whole; also highlight additive relationships in relation to multiplication facts Pupils use x tables knowledge to then solve division problems (with no formal method)
Year 4 Multiplication and Division	• Recall multiplication and division facts for multiplication tables up to 12 × 12 • se place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • Recognise and use factor pairs and commutativity in mental calculations • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout • Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one	 Arrays used to support new times tables knowledge

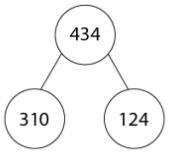
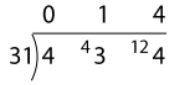
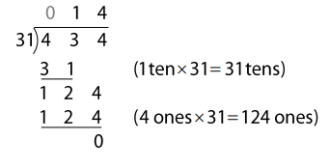
	digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	 23 x 4 Grid method to support partitioning of factors to solve 2 digit by 1 digit calculations and scaling  Partitioning into smaller units appropriate for division where children understand that the parts need to be divisible by the divisor (using x tables knowledge)
Year 5 **Addition and subtraction (incl place value)**	• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • Solve number problems and practical problems that involve all of the above read Roman numerals to 1000 (M) and recognise years written in Roman numerals • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Add and subtract numbers mentally with increasingly large numbers Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	 Place value counters used to support place value and unitising; used to also deepen understanding within addition and subtraction before looking again at column methods; also applied within decimals  Compact column addition method; units carried underneath the line; pupils explicitly taught the value of digits carried underneath the

	• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	line' this can also be applied when adding decimals  Compact column subtraction, explicit teaching reference made to the redistribution of columns **e.g** 43 = 30 + 13 so the subtrahend can be subtracted from the minuend to find the difference; this also needs to be made clear when adding decimals  Bar models used to help represent word problems and help children to visual problems and what they need to do to solve problems and find the missing parts
Year 6 **Addition and subtraction (incl place value)**	• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero • Solve number and practical problems that involve all of the above. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Year 6 (same as year 5 but with larger place value units)  Bar models used to help begin to express algebraic expressions and help to secure understanding between additive and multiplicative relationships

		2. Additive – comparative  3. Additive or multiplicative  4. Multiplicative – scaling 
Year 5 Multiplication and Division	• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Know and use the vocabulary of prime numbers, prime factors and composite (non prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	 Expand columns to ensure understanding of place value when multiplying larger digits. Compacted columns of 1 digit multiplication which quickly moves to multiplication of 2 digit numbers. |		
	4	8
x		6
2	8	8
	4	|

		 6 tens ÷ 3 = 2 tens 21 ones ÷ 3 = 7 ones 81 ÷ 3 = 27 Formal division is introduced first with the use of place value counters; building on from knowledge in year 4 and how partitioning numbers into numbers divisible by the divisor can help 4 4 r3 6 ⟌ 2 5²7 Learning then moves onto using short division which build upon known x tables facts and how known facts can be used to help dividend ÷ divisor = quotient quotient divisor ⟌ dividend
Year 6 Multiplication and Division	• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers identify common factors, common multiples and prime numbers	Part–part–whole model:  Short multiplication and combining partial products:  Solve multiplication calculations through partition and addition to

	• Use their knowledge of the order of operations to carry out calculations involving the four operations	ensure secure place value understanding and a deeper understanding $$\begin{array}{rrr} & 3 & 1 \\ \times & & 2 \quad 4 \\ \hline & 1 & 2 \quad 4 \\ & 6 & 2 \quad 0 \\ \hline & 7 & 4 \quad 4 \end{array}$$ Children then moved onto compact column multiplication • Scaling the dividend and divisor  • Recording as short division  Scaling used to initially introduce dividing when the divisor is a 2 digit number (children still required to use their known number facts) • Recording as long division $$\begin{array}{r} 2 \quad \text{r } 25 \\ \hline 30\overline{)8 \quad 5} \\ \underline{6 \quad 0} \\ 2 \quad 5 \end{array}$$ Long division: introduce when calculations can be solved with known number facts and remainder is clear to see

		Partitioning  310 ÷ 31 = 10 124 ÷ 31 = 4 434 ÷ 31 = 14 Short division  Long division  Children are encouraged to use a range of different methods for division and then they can make informed choices on the most efficient method for different calculations which allows for flexible learners

PROGRESSION OF SKILLS

	Place Value	Addition and Subtraction	Multiplication and Division	Fractions & Decimals	Percentages	Ratio and Proportion

Yr1	Count to and across 100, forwards and backwards, beginning from 0 or 1, or from any given number Count numbers to 100 in numerals; count in multiples of 2s, 5s, 10s Identify and represent numbers using objects and pictorial representations Read and write numbers up to 100 in numerals Read and write numbers from 1 to 20 in numerals and words Given a number, identify one more and one less	Read, write and interpret mathematical statements involving additional (+) and subtraction (-) and equals (=) signs Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and 2-digit numbers to 20 including 0. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 - ? = 9	Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity		
Yr2	Count in steps of 2, 3 and 5 from 0 and in 10s from any number, forward and backward Read and write numbers to at least 100 in numerals and words Identify, represent and estimate numbers using different representations, including the number line Recognise the place value of each digit in a two-digit number Compare and order numbers from 0 up to 100	Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use and the inverse relationship between addition and subtraction and use this to check	Recall and use multiplication and division facts for the 2, 5, and 10 multiplication tables, including recognise odd and even numbers Show that multiplication of 2 numbers can be done in any order (commutative) and division of one number by another cannot Calculate mathematical statements for multiplication and	Recognise, find, name and write fractions ⅓, 1/4, 2/4 and ¾ of length,shape, set of objects or quantity Recognise the equivalence of 2/4 and ½ Write simple fractions for example, ½ of 6 = 3		

	Use place value and number facts to solve problems	calculations and solve missing number problems Add and subtract numbers using concrete objects, pictorial representations, and mentally including: -2-digit numbers and ones -2-digit numbers and tens -two 2-digit numbers -adding three 1-digit numbers Solve problems with addition and subtraction Using concrete objects and pictorial representations, including those involving numbers, quantities and measures Apply their increasing knowledge of mental and written calculations	division within the multiplication tables and write them using the multiplication (x), division () and equals (=) sign Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context.			
Yr3	Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Identify, represent and estimate numbers using different representations Read and write numbers up to 1000 in numerals and words	Estimate the answer to a calculation and use inverse operation to check answers Add and subtract numbers, mentally, including: -3-digit number and ones -3-digit numbers and tens -3-digit number and hundreds	Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators		

	Recognise the place value of each digit in a 3-digit number Compare and order numbers up to 1000 Solve number problems and practical problems	Add and subtract numbers with up to 3-digits, using formal written method of columnar addition and subtraction Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction	digit number, using mental and progressing to formal written methods Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions, and fractions with the same denominators Add and subtract fractions with the same denominator within one whole (e.g 5/7 +1/7 = 6/7) Solve problems that involve all of the above		
Yr4	Count in multiples of 6, 7, 9, 25 and 1000 Count backwards through zero to include negative numbers Identify, represent and estimate numbers using different representations Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include include the concept of zero and place value FInd 1000 more or less than a given number Recognise the place value of each digit in a 4-digit number Order and compare numbers beyond a 1000	Estimate and use inverse operations to check answers to a calculation Add and subtract numbers with up to 4-digits using the formal written method of columnar addition and subtraction where appropriate Solve addition and subtraction two-step problems in contexts, deciding which operations and method to use and why	Recall multiplication and division facts for the multiplication tables up to 12 x 12 Use place value, known and derived facts to multiply and divide mentally, including; multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers Recognise and use factor pairs and commutativity in mental calculations Multiply 2-digit and 3-digit numbers by 1-digit numbers using formal written layout Solve problems involving multiplying and adding, including using the distributive law to multiply 2-	Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 Recognise and show, using diagrams, families of common equivalent fractions Add and subtract fractions with the same denominator Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Recognise and write decimals equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to ¼, ½, ¾	Solve simple measure and money problems involving fractions and decimals to two places	

	Round any number to the nearest 10, 100, 1000 Solve problems that involve all of the above		digit numbers by 1-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to 2 decimal places Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths		
Yr5	Count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000 Count forwards and backwards with positive and negative whole numbers, including through zero Read, write, (order and compare) numbers up to at least 1, 000, 000 and determine the value of each digit Read Roman numerals to 1000 (M) and recognise years written in roman numerals Interpret negative numbers in context Round any number up to 1,000,000 Solve problems	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Add and subtract whole numbers with more than 4-digits, including using formal written methods (columnar addition and subtraction) Add and subtract numbers mentally with increasingly larger numbers Solve addition and subtraction multi-step problems in context deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division and a combination of these,	Identify multiples and factors, including finding all factors pairs of a number, and common factors of 2 numbers Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared and cubed Multiply numbers up to 4-digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers Multiply and divide numbers mentally	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 +4/5 = 6/5 = 1 1/5) Compare and order fractions whose denominators are all multiples of the same number Add and subtract fractions with the same denominator and denominators that are multiples of the same number Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Read and write decimal numbers as fractions (e.g 0.71 = 71/100) Recognise and use thousandths and relate	Recognise the percent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of ½, ¼, ⅕, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25	

		including understanding the meaning of the equals sign	drawing upon known facts Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates	them to tenths, hundredths and decimal equivalent Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place Read, write, order and compare numbers with up to 3 decimal places Solve problems involving number up to 3 decimal places		
Yr6	Read, write (order and compare) numbers up to 10, 000, 000 and determine the value of each digit Round any whole number to a required degree of accuracy Use negative numbers in context and calculate intervals across zero	Perform mental calculations , including with mixed operations and large numbers Use their knowledge of the order of operations to carry out calculations involving the four operations Solve addition and subtraction multi-	Identify common factors, common multiples and prime numbers Use estimation to check answers to calculations and determine, in the context of the problem, an appropriate degree of accuracy	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions, including fractions >1 Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions	Associate a fraction with division and calculator decimals fraction equivalents (e.g. 0.375 for a simple fraction - e.g. $\frac{3}{8}$) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication and division facts Solve problems involving the calculation of percentages (e.g. measures, and such as 15% of 360) and the

	Solve number and practical problems that involve all of the above.	step problems in context, deciding which operations and methods to use and why	Multiply multi-digit numbers up to 4-digits by a 2-digit whole number using the formal written method of long multiplication Divide numbers up to 4-digits by a 2-digit whole number using the formal written method of long division and short division and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Perform mental calculations, including with mixed operations and large numbers Solve problems involving all four operations Use their knowledge of the order of operations to carry out calculations involving all 4 operations.	Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g ¼ x1/2 = ⅛) Divide proper fractions by whole numbers (e.g ⅓ divided by 2 = ⅙) Identify the value of each digit in numbers given to 3 decimal places Multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places Multiply one-digit numbers with up to 2 decimal places by whole numbers Use written division methods in cases where the answer has up to 2 decimal places Solve problems which require answers to be rounded to specified degrees of accuracy		use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples