



Mathematics Skills Progression

Aspect (NUMBER)	Key Stage 1 Essential Skills		Lower Key Stage 2 Essential Skills		Upper Key Stage 2 Essential Skills	
	End of Year 1 Expectations	End of Year 2 Expectation	End of Year 3 Expectation	End of Year 4 Expectations	End of Year 5 Expectations	End of Year 6 Expectations
Addition & Subtraction						
Adding & subtracting mentally	<p>Represent, reason with and use number bonds and related subtraction facts within 20 (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$).</p> <p>Add and subtract one-digit and two-digit numbers to 20 (e.g. $9 + 9 = 18$, $18 - 9 = 9$), including zero, using abstract representation.</p>	<p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related addition and subtraction facts up to 100 (e.g. $3 + 7 = 10$; $10 - 7 = 3$; $30 + 70 = 100$; $100 - 70 = 30$).</p> <p>Add and subtract numbers to 100 using concrete objects, pictorial representations and mentally, including:</p> <ul style="list-style-type: none"> - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers. 	<p>Recall and use addition and subtraction facts to 100 (e.g. $27 + 73 = 100$; $100 - 27 = 73$).</p> <p>Derive and use related facts up to 1000, working with more complex combinations (e.g. $27 + 73 = 100$; $270 + 730 = 1000$).</p> <p>Choose their own equipment appropriate to task, trying different approaches and finding ways of overcoming difficulties.</p> <p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - a three-digit number and ones - a three-digit number 	<p>Continue to practice mental methods for addition and subtraction with increasingly large numbers, including partitioning to aid fluency.</p>	<p>Add and subtract increasingly large numbers, identifying and using the best mental strategies to tackle a range of problems.</p>	<p>Perform more complex mental calculations, including mixed operations and large numbers.</p>



Mathematics Skills Progression

			and tens – a three-digit number and hundreds.			
Adding and subtracting using written methods	Read, write and interpret simple mathematical statements, involving addition (+), subtraction (-) and equals (=) signs, recognising that addition and subtraction are related operations.	Show, with examples, that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Record addition and subtraction in columns to support their understanding of place value in preparation for formal written methods with larger numbers.	Add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction, carrying and exchanging when necessary.	Where appropriate, add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction, including adding decimal numbers through the context of money.	Add and subtract whole numbers with more than five digits (including decimal numbers), using formal written methods of columnar addition and subtraction.	Use their knowledge of the order of operations to carry out calculations, involving the four operations, identifying how the position of the brackets can affect the answer. Continue to add and subtract in columns with increasingly large numbers (including decimals) to improve procedural fluency.



Mathematics Skills Progression

Estimating and checking	N/A	<p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</p> <p>Check their calculations by adding numbers in a different order (e.g. $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$).</p>	<p>Estimate, by rounding to the nearest 10, the answer to addition and subtraction calculations with numbers up to 1000 and use inverse operations to check answers.</p> <p>Begin to recognise estimation, rounding and approximation as strategies to check their working out.</p>	<p>Estimate, by rounding to the nearest 10, 100 and 1000, and use inverse operations to check answers to a calculation with increasingly large numbers.</p>	<p>Use rounding to estimate and check answers to calculations and determine, in the context of a problem, levels of accuracy, including rounding by 10, 100, 1000, 10,000 and 100,000.</p> <p>Estimate within addition and subtraction problems by rounding decimal numbers to the nearest whole number, choosing how to round depending on the context.</p> <p>Check answers using inverse operations.</p>	<p>Use estimation/rounding/approximation to check answers to calculations and determine, in the context of a problem, an appropriate level of accuracy.</p> <p>Estimate by rounding decimal numbers with three or more decimal places to the nearest whole number or to one or two decimal places, depending on the context of the problem.</p> <p>Check answers using inverse operations.</p>
--------------------------------	-----	--	---	---	---	--



Mathematics Skills Progression

Problem solving and applying	<p>Solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, including missing number problems (e.g. $4 + ? = 9$, $7 = ? - 9$).</p> <p>Use addition and subtraction in familiar and practical contexts.</p>	<p>Apply their increasing knowledge of mental and written methods to solve simple problems with addition and subtraction, using concrete objects and pictorial representations (including those involving numbers, quantities and measures).</p>	<p>Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction with numbers up to 1000.</p>	<p>Solve addition and subtraction two-step problems (with increasingly large numbers) in contexts, deciding which operations and methods to use, explaining their choices.</p>	<p>Solve addition and subtraction multi-step problems in contexts, involving all of the above, deciding which operations and methods to use and why.</p>	<p>Solve addition and subtraction multi-step problems in contexts, involving all of the above, deciding which operations and methods to use, explaining their choices.</p>
Algebra						
Formulae, expressions and equations	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Express missing number problems algebraically using all four operations and mixed operations (e.g. $3n + 5 = 20$, what is the value of n? If $n = 9$, what is $9n + 2$?).</p> <p>Use and choose simple formulae in other contexts (e.g. to find missing</p>



Mathematics Skills Progression

						<p>numbers, lengths, co-ordinates and angles).</p> <p>Find pairs of numbers that satisfy an equation involving two unknowns, including solving problems and puzzles (e.g. here are three equations: – $a + b + c = 30$ – $a + b = 24$ – $b + c = 14$ What are the values of a, b and c?).</p> <p>Enumerate possibilities of combinations of two variables, including solving problems and puzzles (e.g. what two numbers can add up to).</p>
--	--	--	--	--	--	---



Mathematics Skills Progression

Sequences	N/A	N/A	N/A	N/A	N/A	Generate and describe linear sequences.
Problem solving	N/A	N/A	N/A	N/A	N/A	Solve multi-step number and practical problems that involve all of the above.
Decimals & Percentages						
Recognise, read, write and compare decimals	N/A	N/A	N/A	<p>Recognise and write decimal equivalents of any number of tenths or hundredths, including plotting tenths and hundredths on a number line.</p> <p>Recall and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$.</p> <p>Compare and order numbers with the same number of decimal places up to two decimal places.</p>	<p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Read and write decimal numbers, up to three decimal places, as fractions (e.g. $0.771 = \frac{771}{1000}$).</p> <p>Read, write, order and compare numbers with up to three decimal places (e.g. can you order 2.321, 2.4, 2.34, 2.401 and 2.5?).</p>	<p>Identify the value of each digit in numbers given to three decimal places.</p> <p>Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places and, solve related problems with increasing fluency.</p>



Mathematics Skills Progression

Rounding decimal numbers	N/A	N/A	N/A	Round any decimal with one decimal place to the nearest whole number to estimate when problem solving, including mixed digit numbers (e.g. 1345.4 – 1345 345.6 – 346 34.6 – 35).	Round any decimals with two decimal places to the nearest whole number and to one decimal place (e.g. 380.64 – 380.6 – 381 34.65 – 34.7 – 35 1456.54 – 1456.5 – 1457).	Round decimals with three decimal places to the nearest whole number and to one or two decimal places and decide independently how decimal numbers should be rounded when estimating (e.g. 34.365 – 34 34.365 – 34.4 34.365 – 34.37).
Multiplying decimal numbers	N/A	N/A	N/A	N/A	Multiply whole numbers and those involving decimals by 10, 100 and 1000, in context and apply to problem solving.	Multiply numbers with up to two decimal places by whole numbers, using formal and informal written methods.
Dividing with decimal answers	N/A	N/A	N/A	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 with increasing fluency	Divide whole numbers and those involving decimals by 10, 100 and 1000, in context and apply to problem solving.	Use written division methods in cases where the answer has up to two decimal places.



Mathematics Skills Progression

				and solve simple problems mentally.		
Percentages	N/A	N/A	N/A	N/A	<p>Recognise the percent symbol (%), knowing that percent relates to 'number of parts per hundred', and write percentages as a fraction with denominator hundred, and as a decimal.</p> <p>Recall from memory 50%, 25%, 75% and 10% as a fraction and a decimal.</p>	<p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>
Problem solving	N/A	N/A	N/A	Solve simple measure and money problems involving fractions and decimals to two decimal places.	<p>Solve problems involving number up to three decimal places, including converting between units of measure in context.</p> <p>Solve problems which require knowing percentage</p>	<p>Solve problems, involving all of the above, which require answers to be rounded to specified degrees of accuracy.</p> <p>Solve problems involving the calculation of</p>



Mathematics Skills Progression

					and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	percentages of whole numbers or measures, such as 15% of 360 and the use of percentages for comparison. Use advanced mental strategies (e.g. when finding 90% take away 10% from the total, or when finding 60% find a half and 10% and add them together).
Fractions, Ratio & Proportion						
Recognise, represent and name fractions	Recognise, find and name half as one of two equal parts and find half of discrete and continuous quantities by problem solving, using shapes, objects and quantities (e.g. recognise and find half of a length, quantity, set of objects or shape).	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity, meeting $\frac{2}{4}$ and $\frac{3}{4}$ as the first example of non-unit fractions.	Recognise and show, using diagrams, equivalent fractions with small denominators to tenths. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators to tenths, and instantly recognise	Recognise and show, using diagrams, families of common equivalent fractions. Use factors and multiples to find and recognise equivalent fractions and simplify where appropriate.	Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths and cancel fractions to their simplest form using factors. Recognise mixed numbers and improper fractions	Use common factors to simplify fractions. Use common multiples to express fractions in the same denomination and cancel fractions to their simplest form with increasing fluency.



Mathematics Skills Progression

	Recognise, find and name a quarter as one of four equal parts and find a quarter of discrete and continuous quantities by problem solving, using shapes, objects and quantities (e.g. recognise and find a quarter of a length, quantity, set of objects or shape).		fractions equivalent to a half.	Recall and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ and recognise and write decimal equivalents of any number of tenths or hundredths with increasing fluency.	and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}$).	Associate any fraction with division to calculate decimal fraction equivalents (e.g. 0.333333) for a simple fraction (e.g. $\frac{1}{3}$).
Compare and order fractions	N/A	N/A	Compare and order unit fractions with the same denominator, to tenths, and place them on a blank number line.	Compare and order unit fractions with increasingly large denominators (including hundredths) and order on the number line.	Compare and order non-unit fractions whose denominators are all multiples of the same number with more than four fractions in a set. Use the greater than and less than symbols ($>$) to construct number sentences incorporating fractions.	Compare and order fractions, including fractions > 1 , those with mixed numbers, decimals and percentages.



Mathematics Skills Progression

Counting	N/A	Count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (e.g. $1\frac{1}{4}$, $1\frac{2}{4}$ (or $1\frac{1}{2}$), $1\frac{3}{4}$, 2).	Count up and down in tenths fluently, recognising that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.	Count fluently in fractions, including hundredths, recognising that hundredths arise when dividing an object or number by one hundred and dividing tenths by ten.	Continue to practice counting forwards and backwards in fractions to improve fluency.	Continue to practice counting forwards and backwards in fractions to improve fluency.
Finding fractions of amounts	N/A	Write simple fractions with numbers up to and including 100 (e.g. $\frac{1}{2}$ of 30 = 15, $\frac{1}{2}$ of 40 = 20, $\frac{1}{2}$ of 50 = 25, $\frac{1}{2}$ of 100 = 50. Recognise the equivalence of two quarters ($\frac{2}{4}$) and one half ($\frac{1}{2}$).	Recognise, find and write fractions of a discrete set of objects: unit and non-unit fractions including; halves, thirds, quarters, fifths, eighths and tenths.	Continue to find fractions of amounts, with unit and non-unit fractions, applying knowledge of the appropriate multiplication tables.	Continue to develop their understanding of fractions as numbers, measures and operators by finding fractions of numbers and quantities.	Use their understanding of the relationship between unit fractions and division to work backwards by multiplying a quantity that represents a unit fraction to find the whole quantity (e.g. if $\frac{1}{4}$ of a length is 36 cm then the whole length is $36 \times 4 = 144$ cm).
Adding and subtracting fractions	N/A	N/A	Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ and $\frac{1}{3} + \frac{2}{3}$ make a whole).	Add and subtract fractions with the same denominator to become fluent through a variety of increasingly	Fluently add and subtract fractions with the same denominator and denominators that	Add and subtract fractions with different denominators and mixed numbers, using the concept



Mathematics Skills Progression

				complex problems beyond one whole (e.g. $5/8 + 7/8 = 1\ 1/2$, therefore $1\ 1/2 - 7/8 = 5/8$).	are multiples of the same number.	of equivalent fractions.
Multiplying and dividing fractions	N/A	N/A	N/A	N/A	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	<p>Multiply simple pairs of proper fractions, with any denominator, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers (e.g. $1/3 \div 2 = 1/6$).</p>
Ratio and proportion	N/A	N/A	N/A	N/A	N/A	Solve more complex problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts, including working backwards (e.g. In a class, 18 of the



Mathematics Skills Progression

						<p>children in the class are boys. How many children are there altogether?).</p> <p>Solve more complex problems involving similar shapes where the scale factor is known or can be found (e.g. scale drawings of shapes with a scale factor of 2, meaning the new shape is twice the size, or a scale factor of 3, meaning the shape is 3 times the size).</p> <p>Solve increasingly complex problems involving unequal sharing and grouping, using knowledge of fractions and multiples (e.g. 2 diamond rings and 4 silver rings cost £1,440. A diamond</p>
--	--	--	--	--	--	--



Mathematics Skills Progression

						ring and a silver ring cost £660. How much does a silver ring cost?).
Problem solving	N/A	N/A	Solve more complex problems, involving all of the above.	Solve simple measure and money problems involving fractions and decimals to two decimal places.	Solve problems that involve all of the above, including problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.	Solve problems in context, involving all of the above.
Multiplication & Division						
Multiplication & Division	Count in multiples of 2, 5 and 10 up to and including 100 (where appropriate).	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.	Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables.	Recall multiplication and division facts for multiplication tables up to 12×12 .	Improve speed of recall for multiplication and division facts for multiplication tables up to 12×12 and consolidate the related division facts.	Improve speed of recall for multiplication and division facts for multiplication tables up to 12×12 . Derive multiplication and division facts for 10, 100 and 1000 and



Mathematics Skills Progression

					Derive multiplication and division facts for multiples of 10 and 100.	for decimal numbers (e.g. $0.6 \times 7 = 4.2$ and $0.6 \times 0.7 = 0.42$).
Multiplying and dividing mentally	Use mental strategies to double and half one and two-digit numbers to and including 50, using concrete objects and pictorial representation.	Calculate mathematical statements for multiplication and division within the 2, 5 and 10 multiplication tables.	Use the 2, 3, 4, 5, 8 and 10 multiplication tables, including for two-digit numbers times one-digit numbers. Multiply one-digit numbers by 2, 3, 4, 5, 8 and 10, using mental strategies.	Use place value, known and derived facts to multiply and divide mentally with numbers up to 12×12 , including: – multiplying by 0 and 1 – dividing by 1 – multiplying together three numbers.	Multiply and divide numbers mentally, drawing upon known facts, including multiplying by multiple of 10 and 100.	Perform more complex mental calculations, including those with mixed operations, increasingly large numbers, negative numbers and decimals.
Multiplying and dividing using written methods	Use written strategies to double and half one and two-digit numbers to and including 50, using concrete and pictorial representation.	Show, with examples, that multiplication of two numbers in the 2, 5 and 10 times table can be done in any order (commutative) and division of one number by another cannot (e.g. $2 \times 6 = 12$ therefore $6 \times 2 = 12$ $12 \div 6 = 2$ $5 \times 3 = 15$ therefore 3×5	Write and calculate mathematical statements for multiplication and division using multiplication tables that they know (2, 3, 4, 5, and 10). Progress to formal written methods to multiply two-digit	Multiply two-digit and three-digit numbers by and one-digit number, using formal written layout (demonstrating improved procedural fluency).	Multiply multi-digit numbers (those with up to 4 digits) by a two digit whole number, using the formal written method of long multiplication. Divide numbers with up to four digits by a one-digit number,	Continue to multiply multi-digit numbers (those with up to four digits) by a two-digit whole number, using the formal written method of long multiplication to improve procedural fluency.



Mathematics Skills Progression

		<p>= 15 $15 \div 5 = 3$ $6 \times 10 = 60$ therefore $10 \times 6 = 60$ $60 \div 10 = 6$).</p>	<p>numbers by a one-digit number (multiplying by 2, 3, 4, 5 and 8).</p>	<p>Divide two-digit and three-digit numbers by any one-digit number using a formal written layout (including remainders).</p>	<p>using the formal written method of short division and interpret remainders appropriately according to context (including fractions, decimals and rounding).</p>	<p>Divide numbers with up to four 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.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations. Identify how the position of the brackets can affect the answer.</p>
--	--	--	---	---	--	--



Mathematics Skills Progression

Estimating and checking	N/A	<p>Recognise and use the inverse relationship between multiplication and division in calculations (working within the 2, 5 and 10 times tables).</p>	<p>Recognise and use the relationship between multiplication and division when performing calculations to check answers and written methods (when multiplying and dividing by 2, 3, 4, 5, 8 and 10).</p>	<p>Recognise and use the inverse relationship between multiplication and division when performing calculations, up to 12 x 12, to check answers and written methods (including two and three-digit numbers, multiplied and divided by any one-digit number).</p>	<p>Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p>	<p>Continue to use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p>
Properties of number	N/A	<p>Identify multiple of 2, 5 and 10.</p> <p>Recognise that multiples of 2 are always even, multiples of 5 always end with 0 or 5 and multiples of 10 always end in 0.</p>	<p>Identify, from a set of numbers, multiples of 2, 3, 4, 5, 8 and 10 by their properties (e.g. multiples of 8 are always multiples of 4).</p>	<p>Identify multiples of numbers up to 12 x 12 by their properties and make connections between certain times tables (e.g. multiples of 2, 4 and 8 are connected and multiples of 3, 6 and 9 are connected).</p>	<p>Identify multiples and factors, including finding all factor pairs of increasing large numbers and common factors of pairs of numbers.</p> <p>Recognise and use the vocabulary of prime numbers, prime factors and</p>	<p>Identify common multiples, including finding the least common multiple of two numbers (e.g. 20, 40, 60, 80 and 100 are common multiples of 4 and 5. The least common multiple is 20 as it is the smallest number).</p> <p>Identify common factors of pairs of</p>



Mathematics Skills Progression

				<p>Recognise and use factor pairs and commutativity in mental calculations for numbers up to 12×12 (e.g. $12 = 4 \times 3 = 3 \times 4$)</p>	<p>composite (non-prime) numbers.</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19.</p> <p>Recognise and use square numbers up to 12^2 and cube numbers up to 10^3 and the notation for squared and cubed numbers.</p>	<p>numbers, including using factor trees to find prime factors and prime factorisation of any number (e.g. $48 = 2 \times 2 \times 2 \times 3$).</p> <p>Use factors to find equivalent fractions and ratios, including cancelling fractions and ratios to their simplest form.</p> <p>Continue to establish whether numbers beyond 100 are prime and recall prime numbers to 30 to maintain fluency.</p> <p>Recognise and use square numbers to 20^2 and cube numbers up to 20^3 and use the notation for squared and cubed numbers in context,</p>
--	--	--	--	---	--	--



Mathematics Skills Progression

						including algebra (e.g. $n^2 + 30 = 79$, what is the value of n ?).
Place value	N/A	Multiply numbers to 20 by 10, beginning to understand the effect.	Recall and use multiplication and division facts for $\times 10$ and know the effect on the place value of the numbers being multiplied (e.g. $45 \times 10 = 450$ therefore $450 \div 10 = 45$).	Multiply and divide increasingly large numbers by 10, including solving problems which involve measures in context.	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 in context and apply to problem solving.	Continue to multiply and divide whole numbers and those involving decimals by 10, 100, 1000 and 10,000 in context and apply to problem solving.
Problem solving	Solve, with teacher support, simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays.	<p>Solve problems involving multiplication and division, using materials, arrays, repeated addition and mental methods for all the above.</p> <p>Solve problems in contexts when multiplying by 2, 5 and 10, including doubling and halving.</p>	<p>Solve problems, including missing number problems, involving multiplying and dividing by 2, 3, 4, 5, 8 and 10.</p> <p>Solve problems including measuring and scaling contexts (e.g. 8 times as high, 10 times as long).</p> <p>Solve problems including correspondence in which n objects are</p>	<p>Solve problems involving multiplying and adding, using the distributive and associative law, including two-step problems in context.</p> <p>Solve increasingly complex problems in context, including integer scaling.</p>	<p>Solve problems involving multiplication and division where larger numbers are used, decomposing them into their factors in context.</p> <p>Solve multi-step problems involving addition, subtraction, multiplication and division and a</p>	<p>Solve problems involving addition, subtraction, multiplication and division.</p> <p>Systematically arrange the information in a problem, identifying and recording the steps needed to solve it, using symbols where appropriate.</p>



Mathematics Skills Progression

			connected to m objects (e.g. 3 hats and 4 coats, how many different outfits are possible?).	Solve harder correspondence problems with an increasing number of combinations and outcomes in which n objects are connected to m objects.	combination of these. Explain the equals sign to indicate equivalence, including in missing number problems (e.g. $33 = 5 \times ?$). Solve more complex problems involving multiplication and division, including scaling by simple fractions involving simple rates to support the introduction of ratio in Y6 (e.g. adapting a simple recipe for more or fewer servings).	Interpret solutions in the original context, checking their accuracy. Organise written work systematically for a range of problem types. Independently review their work and strategies suggesting other problem solving strategies which they could have used.
Number & Place Value						
Identifying and representing numbers	Identify and represent numbers beyond 50 using concrete objects, pictorial representations and the number line.	Identify, represent and estimate numbers to 100 using different representations, including the number line.	Identify, represent and estimate numbers to 1000 using different representations, including more complex number lines.	Identify, represent and estimate numbers using different representations, showing some	Recognise the place value of each digit in numbers up to at least 1,000,000 with increasing fluency.	Recognise the place value of each digit in numbers up to at least 10,000,000 with increasing fluency.



Mathematics Skills Progression

	<p>Confidently use the language of: equal to, more than, less than (fewer), most and least in other mathematical concepts with examples.</p> <p>Begin to recognise the place value of two-digit numbers (tens and ones to 20).</p>	<p>Recognise the place value of each digit in a two-digit number (tens and ones).</p>	<p>Recognise the place value of each digit in a three-digit number (hundreds, tens and ones), showing some awareness of thousand.</p>	<p>awareness of five-digit numbers.</p> <p>Recognise the place value of each digit in a four-digit number, beginning to show awareness of five-digit numbers.</p>		<p>Identify the value of each digit in numbers with up to three decimal places.</p>
<p>Comparing, reading and writing numbers</p>	<p>Read and write numbers to 100 in numerals.</p> <p>Read and write numbers from 1 to 20 in words (not necessarily spelt correctly).</p>	<p>Read and write numbers to at least 100 in numerals and words.</p> <p>Use place value to compare and order numbers from 0 up to 100.</p> <p>Use $<$, $>$ and $=$ signs to compare numbers up to 100.</p>	<p>Read and write numbers up to 1000 in numerals and words.</p> <p>Compare and order numbers up to 1000.</p> <p>Read Roman numerals to 12 (I to XII).</p>	<p>Order and compare numbers up to and including 10,000 with increasing fluency.</p> <p>Use the notation for negative numbers and identify numbers less than 0.</p> <p>Use the $>$ and $<$ signs to accurately compare pairs of numbers, including</p>	<p>Read, write, order and compare numbers up to at least 1,000,000 using $>$ and $<$ signs to make number sentences with more than two numbers, with increasing fluency.</p> <p>Interpret negative numbers in context.</p> <p>Read Roman numerals to 1000 (M) and recognise years</p>	<p>Read, write, order and compare numbers up to and including 10,000,000 using $>$ and $<$ signs to make number sentences with more than two numbers, with increasing fluency.</p> <p>Use negative numbers in context, and calculate intervals across zero.</p>



Mathematics Skills Progression

				<p>positive and negative integers.</p> <p>Read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</p>	<p>written in Roman numerals.</p>	
<p>Counting</p>	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Given a number, identify 1 more and 1 less with numbers up to 100. Count in different multiples, including ones, twos, fives and tens.</p>	<p>Count fluently in steps of 2, 3 and 5 from 0, and count in tens from any number, forward or backward.</p>	<p>Count from 0 in multiples of 4, 8, 10, 50 and 100.</p> <p>Find 10 or 100 more/less than a given number.</p>	<p>Count in multiples of 6, 7, 9, 25 and 1000.</p> <p>Count backwards in ones through zero to include negative numbers.</p> <p>Find 10, 100 or 1000 more or less than a given number, (beginning to work with five-digit numbers).</p>	<p>Count forwards or backwards in steps of powers of 10 for any given number up to at least 1,000,000 with increasing fluency.</p> <p>Count forwards and backwards with positive and negative whole numbers through zero, in context, and apply to solving simple problems</p>	<p>Use the whole number system, including counting, saying, reading and writing numbers accurately.</p>



Mathematics Skills Progression

					(e.g. involving temperature).	
Rounding	N/A	N/A	Round numbers up to 1000 to the nearest 10.	Round any four-digit number to the nearest 10, 100 or 1000.	Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, 100,000.	Round any whole number to a required degree of accuracy.
Problem solving	Use place value and number facts to solve simple concrete and pictorial problems, involving all of the above.	Use place value and number facts to solve problems that involve all of the above.	Solve number and practical problems that involve all of the above.	Solve number and practical problems that involve all of the above.	Solve number and practical problems that involve all of the above.	Solve number and practical problems that involve all of the above.