



Year	Counting	Addition and Subtraction	Multiplication and Division	Fractions
<b>Rec</b>	Count reliably with numbers from 1 to 20 Place numbers from 1-20 in order	Using quantities and objects, add and subtract two single-digit numbers and count on or back to find the answer	Solve problems, including doubling	Solve problems, including halving and sharing
<b>1</b>	Count, read and write numbers to 100 in numerals Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count in multiples of twos, fives and tens Say 1 more and 1 less Use a number line Use the language of: equal to, more than, less than (fewer), most, least Read and write numbers from 1 to 20 in numerals and words	Write mathematical statements involving addition (+), subtraction (-) and equals (=) signs Use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero Solve problems that involve addition and subtraction, using concrete objects and pictures Complete missing number problems such as $7 = ? - 9$	Solve problems involving multiplication and division, by calculating the answer using concrete objects or pictures (e.g. arrays) Count in multiples of twos, fives and tens	Recognise, find and name a half and a quarter as equal parts of an object, shape or quantity
<b>2</b>	Count in steps of 2, 3, 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) Use a 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 Use mental and written methods Use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Add and subtract numbers using objects, pictures 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 Use the inverse relationship between addition and subtraction to check calculations and solve missing number problems	Use multiplication and division facts for the 2, 5 and 10 multiplication tables Calculate within the multiplication tables and write them using the multiplication ( $\times$ ), division ( $\div$ ) 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	Recognise, find, name and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{1}{2}$ (or two quarters) and $\frac{3}{4}$ of a length, shape, set of objects or quantity Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and $\frac{1}{2}$

<p><b>3</b></p>	<p>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          Compare and order numbers up to 1000          Read and write numbers up to 1000 in numerals and in words          Solve number problems and practical problems</p>	<p>Add and subtract numbers mentally, including:          Three-digit number and ones          Three-digit number and tens          Three-digit number and hundreds          Add and subtract numbers with up to three digits, using formal written methods of column 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 addition and subtraction          Add multiples of 10 and 100 mentally to 2 and 3 digit numbers</p>	<p>Use multiplication and division facts for the 2,3,4,5 and 8 multiplication tables          Calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers and two-digit numbers divided by one-digit numbers          Solve problems, including missing number problems, involving multiplication and division</p>	<p>Count up and down in tenths          Understand what tenths are          Find fractions of a discrete set of objects          Use fractions as numbers          Recognise and show equivalent fractions          Add and subtract fractions with the same denominator          Compare and order unit fractions, and fractions with the same denominators</p>
<p><b>4</b></p>	<p>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          Order and compare numbers beyond 1000          Round any number to the nearest 10, 100 or 1000          Read Roman numerals to 100 (I to C)</p>	<p>Add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction          Estimate and use inverse operations to check answers to a calculation          Add and subtract simple decimals, including mentally          Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</p>	<p>Know multiplication tables up to <math>12 \times 12</math>          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          Divide 3-digit numbers by a 1-digit number using short division          Use the distributive law to multiply two digit numbers by one digit</p>	<p>Use common equivalent fractions          Count up and down in hundredths          Add and subtract fractions with the same denominator          Recognise and write decimal equivalents of any number of tenths or hundredths          Know the decimal equivalents 0.25, 0.5 and 0.75          Find the effect of dividing a one- or two-digit number by 10 and 100          Round decimals with one decimal place to the nearest whole number          Compare numbers with the same number of decimal places up to two decimal places</p>

<p><b>5</b></p>	<p>Read, write, order and compare numbers to at least 1 000 000 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 Read Roman numerals to 1000 (M) and recognise years written in Roman numerals Partition decimal numbers</p>	<p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction also including decimals) 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 Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p>	<p>Identify multiples and factors using known tables to 12x12 Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers Know 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 Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders Multiply and divide whole numbers and decimals by 10, 100 and 1000 Recognise and use square numbers and cube numbers and the notation Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p>	<p>Compare and order fractions Know equivalent fractions of a given fraction Recognise mixed numbers and improper fractions and convert from one form to the other Add and subtract fractions Multiply proper fractions and mixed numbers by whole numbers Read and write decimal numbers as fractions Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Round decimals with two decimal places to the nearest whole number and to one decimal place Read, write, order and compare numbers with up to three decimal places Solve problems involving number up to three decimal places Recognise the per cent symbol (%) and write percentages as a fraction and as a decimal</p>
<p><b>6</b></p>	<p>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</p>	<p>Perform mental calculations with mixed operations and large numbers Use knowledge of the order of operations to carry out calculations Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition and subtraction</p>	<p>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 Divide numbers up to 4 digits by a two-digit number using the formal written method of short division, interpreting remainders Complete above using numbers with up to three decimal places Identify common factors, common multiples and prime numbers Solve problems involving multiplication and division Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p>	<p>use common factors to simplify fractions Compare and order fractions, including fractions <math>&gt; 1</math> Add and subtract fractions with different denominators Multiply simple pairs of proper fractions, writing the answer in its simplest form Divide proper fractions by whole numbers Associate a fraction with division and calculate decimal fraction equivalents Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Multiply one-digit numbers with up to two decimal places by whole numbers Use written division methods in cases where the answer has up to two decimal places Solve problems which require answers to be rounded to specified degrees of accuracy Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</p>

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