

Division



Year	1	2	3	4	5	6
Written Methods		Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs	Write and calculate mathematical statements for ÷ using the x tables they know progressing to formal written methods.		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 $194 \div 6$ $6 \overline{) 194} \begin{array}{r} 32 \\ \underline{18} \\ 14 \\ \underline{12} \\ 2 \end{array}$	Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context $564 \div 13$ $13 \overline{) 564} \begin{array}{r} 43r5 \\ \underline{52} \\ 44 \\ \underline{39} \\ 5 \end{array}$
Developing conceptual understanding	<p>6 ÷ 2 = 3 by sharing into 2 groups and by grabbing groups of 2</p> <p>How many 2s?</p>	<p>15 ÷ 3 = 5 in each group (sharing)</p> <p>Link to fractions</p> <p>15 ÷ 3 = 5 groups of 3 (grouping)</p> <p>10 ÷ 2 = 5</p> <p>Use language of division linked to tables</p> <p>How many 2s?</p>	<p>Grouping using partitioning $43 \div 3$ If I know 10×3 ...</p> <p>Use language of division linked to tables</p> <p>How many 3s?</p>	<p>Grouping using partitioning $196 \div 6$ If I know 3×6 ... then 30×6 ...</p> <p>*'Chunking up' on a number line $196 \div 6 = 32 r 4$</p> <p>Use language of division linked to tables.</p>	<p>Papa Titmouse method for division after the number line and the concrete alongside formal bus stop method.</p> <p>$726 \div 6 = 121$</p> <ol style="list-style-type: none"> How many lots of 6 can you get out of 77? (1) Put one 100 in each grid. Exchange the last 100 for ten 10's, giving you twelve tens / 120. How many lots of 6 can you get out of 12? (2) Put two 10's in each grid. How many lots of 6 can you get out of 6? (1) Put one 1 in each grid. With each step, show them how this links to setting it out as above. <p>This can be done with:</p> <ul style="list-style-type: none"> no exchange } Year 4 one exchange } Year 5 two exchanges remainders <p>This is the progression.</p>	<p>Using known multiplication facts</p> <p>$564 \div 13 = 43 r 5$</p> <p>$564 \div 13 = 43 r 5 = 43 \frac{5}{13} = 43.38...$</p> <p>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</p> <p>$564 \div 13$</p> <p>$= 43 r 5 = 43 \frac{5}{13} = 43.4$ (to 1dp)</p>
With jottings ... or in your head ...	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	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	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods	Use 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 and divide numbers mentally drawing upon known facts Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Perform mental calculations, including with mixed operations and large numbers
Just know it!	Count in multiples of twos, fives and tens	Recall and use x and ÷ facts for the 2, 5 and 10 x tables, including recognising odd and even numbers.	Recall and use x and ÷ facts for the 3, 4 and 8 times tables.	Recall x and ÷ facts for x tables up to 12 x 12.	Recall prime numbers up to 19 know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	
Foundations	<p>Count back in 2s</p> <p>Count back in 10s</p> <p>Halves up to 10</p> <p>Count back in 5s</p> <p>Halve multiples of 10</p> <p>How many 2s? 5s? 10s?</p>	<p>Division facts (2 x table)</p> <p>Division facts (10 x table)</p> <p>Halves up to 20</p> <p>Division facts (5 x table)</p> <p>Count back in 3s</p> <p>Review division facts (2x, 5x, 10x table)</p>	<p>Review division facts (2x, 5x, 10x table)</p> <p>Division facts (4 x table)</p> <p>Halve two digit numbers</p> <p>Division facts (8 x table)</p> <p>Division facts (3 x table)</p> <p>Division facts (6 x table) or review others</p>	<p>Division facts (4x, 8x tables) 10 times smaller</p> <p>Division facts (3x, 6 x, 12x tables)</p> <p>Halve larger numbers and decimals</p> <p>Division facts (3x, 9x tables)</p> <p>Division facts (11x, 7x tables)</p> <p>Division facts (6x, 12x tables)</p>	<p>Division facts (4x, 8x tables) 100, 1000 times smaller</p> <p>Division facts (3x, 6 x, 12x tables) Partition to divide mentally</p> <p>Halve larger numbers and decimals</p> <p>Division facts (3x, 9x tables) 100, 1000 times smaller</p> <p>Review division facts (11x, 7x tables) Partition decimals to divide mentally</p> <p>Review division facts (6x, 12x tables) Halve larger numbers and decimals</p>	<p>Division facts (up to 12 x 12)</p> <p>Partition to divide mentally</p> <p>Halve larger numbers and decimals</p> <p>Division facts (up to 12 x 12)</p> <p>Partition to divide mentally</p> <p>Halve larger numbers and decimals</p>