	EYFS/Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition	Combining two parts to make a whole: part whole model. Starting at the bigger number and counting on – using cubes. Regrouping to make 10 using ten frame	Adding three single digits. Use of base 10 to combine two numbers	Column method- regrouping. (up to 3 digits) Using place value counters	Column method- regrouping. (up to 4 digits) Using place value counters	Column method- regrouping. Use of place value counters for adding decimals	Column method- regrouping. Abstract methods. Use of place value counters for adding decimals
Written Methods	Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	Add and subtract two two-digit numbers using concrete objects, pictorial representations progressing to formal written methods $\begin{array}{r} 46 \\ +27 \\ \hline 73 \\ \hline {\scriptstyle 1} \end{array}$	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction $\begin{array}{r} 423 \\ +88 \\ \hline 511 \\ {\scriptstyle 1\ 1} \end{array}$	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition where appropriate $\begin{array}{r} 2458 \\ +596 \\ \hline 3054 \\ {\scriptstyle 1\ 1\ 1} \end{array}$	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) $\begin{array}{r} 23454 \\ +596 \\ \hline 24050 \\ {\scriptstyle 1\ 1\ 1} \end{array}$	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
With jottings … or in your head	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	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	Add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Add and subtract numbers mentally with increasingly large numbers	Perform mental calculations, including with mixed operations and large numbers
Just know it!	Represent & use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20, including zero	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
Foundations	1 less	10 less. Number bonds, subtraction: 20, 12, 13	Subtract multiples of 10 and 100	Subtract multiples of 10 and 100	Subtract multiples of 10s, 100s, 1000s, tenths,	Subtract multiples of 10s, 100s, 1000s, tenths, hundredths
	Number bonds, subtraction: 5, 6	Number bonds, subtraction: 14, 15 Subtract 1 digit from 2 digit by bridging	Subtract single digit by bridging through boundaries	Subtract single digit by bridging through boundaries	Fluency of 2 digit - 2 digit including with decimals	Fluency of 2 digit - 2 digit including with decimals
	Count back. Number bonds, subtraction: 7, 8	Partition second number, count back in 10s then 1s	Partition second number to subtract	Partition second number to subtract	Partition second number to subtract	Partition second number to subtract
	Subtract 10. Number bonds, subtraction: 9, 10	Subtract 10 and multiples of 10. Number bonds, subtraction: 16, 17	Difference between	Difference between	Difference between	Use number facts bridging and place value
	Teens subtract 10.	Subtract near multiples of 10	Subtract near multiples of 10 and 100 by rounding and adjusting	Subtract near multiples of 10 and 100 by rounding and adjusting	Adjust numbers to subtract	Adjust numbers to subtract

	Difference between	Difference between Number bonds, subtraction: 18, 19	Difference between	Difference between	Difference between	Difference between
Subtraction	Taking away ones Counting back Find the difference Part whole model Make 10 using ten frame	Counting back Find the difference Part whole model Make 10 Use of base 10	Column method with regrouping. (up to 3 digits using place value counters).	Column method with regrouping. (up to 4 digits using place value counters).	Column method with regrouping. Abstract for whole numbers. Start with place value counters for decimals - with the same amount of decimal places.	Column method with regrouping. Abstract methods. Place value counters for decimals – with different amounts of decimal places.
Written Methods	Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	Add and subtract two two-digit numbers using concrete objects, pictorial representations progressing to formal written methods ⁶ ¹ 7̶3 - 4 6 2 7	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction ² ³ ¹ 3̶4̶4 - 1 8 7 1 5 7	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition where appropriate ¹ ² ³ ¹ 2̶3̶4̶4 - 1 8 7 2 1 5 7	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
With jottings … or in your head	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	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	Add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens a three-digit number and hundreds	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Add and subtract numbers mentally with increasingly large numbers	Perform mental calculations, including with mixed operations and large numbers
Just know it!	Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
Foundations	1 less	10 less Number bonds, subtraction: 20, 12, 13	Subtract multiples of 10 and 100	Subtract multiples of 10s , 100s, 1000s	Subtract multiples of 10s , 100s, 1000s, tenths,	Subtract multiples of 10s , 100s, 1000s, tenths, hundredths
	Number bonds, subtraction: 5, 6	Number bonds, subtraction: 14, 15 Subtract 1 digit from 2 digit by bridging	Subtract single digit by bridging through boundaries	Fluency of 2 digit subtract 2 digit	Fluency of 2 digit - 2 digit including with decimals	Fluency of 2 digit - 2 digit including with decimals
	Count back Number bonds, subtraction: 7, 8	Partition second number, count back in 10s then 1s	Partition second number to subtract	Partition second number to subtract Decimal subtraction from 10 or 1	Partition second number to subtract	Partition second number to subtract
	Subtract 10. Number bonds, subtraction: 9, 10	Subtract 10 and multiples of 10 Number bonds, subtraction: 16, 17	Difference between	Difference between	Difference between	Use number facts bridging and place value

	Teens subtract 10.	Subtract near multiples of 10	Subtract near multiples of 10 and 100 by rounding and adjusting	Subtract near multiples by rounding and adjusting	Adjust numbers to subtract	Adjust numbers to subtract
	Difference between	Difference between Number bonds, subtraction: 18, 19	Difference between	Difference between	Difference between	Difference between
Multiplication	Recognising and making equal groups. Doubling Counting in multiples – use cubes and other objects in the classroom.	Arrays- showing commutative multiplication	Arrays 2d x 1d using base 10	Column multiplication – introduced with place value counters. (2 and 3 digit multiplied by 1 digit)	Column multiplication Abstract only but might need a repeat of year 4 first (up to 4 digit numbers multiplied by 1 or 2 digits)	Column multiplication Abstract methods (multi-digit up to 4 digits by a 2 digit number)
Written Methods		Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	Write and calculate mathematical statements for ÷ using the x tables they know progressing to formal written methods.	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout 243 x 6 2058 1	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 243 x 36 1458 7290 8748 1	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication 5172 x 38 41376 155160 196536 1
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 Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers establish whether a number up to 100 is prime	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 Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	
	Count in 2s	2 x table	Review 2x, 5x and 10x	4x, 8x tables 10 times bigger	4x, 8x tables 100, 1000 times bigger	Multiplication facts up to 12 x 12
	Count in 10s	10 x table	4x table	3x, 6x and 12x tables	3x, 6x and 12x tables 10, 100, 1000 times smaller	Partition to multiply mentally
Foundations	Doubles up to 10	Doubles up to 20 and multiples of 5	Double two digit numbers	Double larger numbers and decimals	Double larger numbers and decimals	Double larger numbers and decimals
	Count in 5s	5 x table	8 x table	3x, 9x tables	3x, 9x tables	Multiplication facts up to 12 x 12
	Double multiples of 10	Count in 3s	3 x table	11x, 7 x tables	11x, 7 x tables Partition to multiply mentally	Partition to multiply mentally
	Count in 2s, 5s and 10s	2 x, 5 x and 10 x tables	6 x table or review others	6x, 12 x tables	6x, 12 x tables	Double larger numbers and decimals
Division	Sharing objects into groups Division as grouping e.g. I have 12 sweets and put them in groups of 3, how many groups? Use cubes and draw round 3 cubes at a time.	Division as grouping Division within arrays – linking to multiplication Repeated subtraction	Division with a remainder – using lollipop sticks, times tables facts and repeated subtraction. 2d divided by 1d using base 10 and/or place value counters	Division with a remainder Short division (up to 3 digits by 1 digit - concrete and pictorial)	Short division (up to 4 digits by a 1 digit number including remainders)	Short division Long division with place value counters (up to 4 digits by a 2 digit number) Children should exchange into the tenths and hundredths column too.
Written Methods		Calculate mathematical statements for multiplication and division	Write and calculate mathematical statements for ÷ using the x tables they know progressing to formal	Divide numbers up to 4 digits by a one-digit number using the formal written method of short	Divide numbers up to 4-digits by a two-digit whole number using the formal	

		within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	written methods.	division and interpret remainders appropriately for the context	written method of short division where appropriate for the context	
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	Count back in 2s	Division facts (2 x table)	Review division facts (2x, 5x, 10x table)	Division facts (4x, 8x tables) 10 times smaller	Division facts (4x, 8x tables) 100, 1000 times smaller	Division facts (up to 12 x 12)
	Count back in 10s	Division facts (10 x table)	Division facts (4 x table)	Division facts (3x, 6 x, 12x tables)	Division facts (3x, 6 x, 12x tables) Partition to divide mentally	Partition to divide mentally
	Halves up to 10	Halves up to 20	Halve two digit numbers	Halve larger numbers and decimals	Halve larger numbers and decimals	Halve larger numbers and decimals
	Count back in 5s	Division facts (5 x table)	Division facts (8 x table)	Division facts (3x, 9x tables)	Division facts (3x, 9x tables) 100, 1000 times smaller	Division facts (up to 12 x 12)
	Halve multiples of 10	Count back in 3s	Division facts (3 x table)	Division facts (11x, 7x tables)	Review division facts (11x, 7x tables) Partition decimals to divide mentally	Partition to divide mentally
	How many 2s? 5s? 10s?	Review division facts (2x, 5x, 10x table)	Division facts (6 x table) or review others	Division facts (6x, 12x tables)	Review division facts (6x, 12x tables) Halve larger numbers and decimals	Halve larger numbers and decimals