Addition and Subtraction Calculation Policy - linked to White Rose (tailored to fit our school)
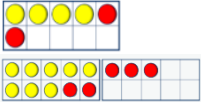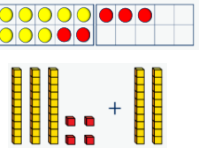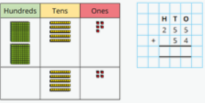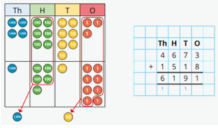
Link to models and images overview   Our familiar representation to support new learning progresses from 5 and 10 frames, to Base 10, to place value counters (when proportionality of base 10 system is secured) - once they secure concepts, they can work in the abstract.

Progression of skills:

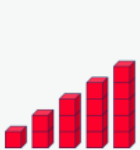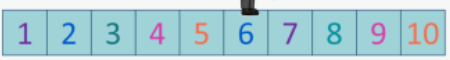| Year Group:	Addition Progression:	Subtraction Progression:
Nursery	• Subitise to 3 • Count how many • Make numbers to 5 • Add 1 more (through songs and rhymes)	• Subitise to 3 • Count how many • Make numbers to 5 • Take 1 away (through songs and rhymes)
Reception	• Conceptually subitise to 5 • 1 more • Notice the composition of numbers within 10 • Combine 2 groups • Add more	• Conceptually subitise to 5 • 1 less • Notice the composition of numbers within 10 • Partition • Take away
Year 1	• Add together • Add more • Bonds within 10 • Related facts within 20 • Missing numbers	• Find a part • Take away • Bonds within 10 • Related facts within 20 • Missing numbers
Year 2	• Add 1s to any number (related facts) • Add three 1-digit numbers • Add across a 10 • Add multiples of 10 • Add 10s to any number • Add two 2-digit numbers (not across a ten) • Add two 2-digit numbers (across a ten) • Missing numbers	• Subtract 1s from any number (related facts) • Subtract across a 10 • Subtract multiples of 10 • Subtract 10s from any number • Subtract two 2-digit numbers (not across a ten) • Subtract two 2-digit numbers (across a ten) • Missing numbers
Year 3	• Add 1s, 10s and 100s to a 3-digit number • Add two numbers (no exchange) • Add two numbers across a 10 or 100 • Complements to 100 • Add fractions with the same denominator within 1 whole • Calculate the duration of events	• Subtract 1s, 10s and 100s from a 3-digit number • Subtract two numbers (no exchange) • Subtract two numbers across a 10 or 100 • Complements to 100 • Subtract fractions (same denominator) within 1 whole

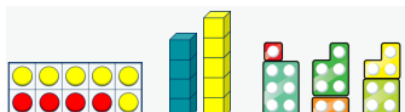|		
Year 4	• Add 1s, 10s and 100s to a 4-digit number • Add up to two 4-digit numbers • Add decimal numbers in the context of money • Add fractions and mixed numbers with the same denominator beyond 1 whole	• Subtract 1s, 10s, 100s and 1,000s from a 4-digit number • Subtract up to two 4-digit numbers • Subtract decimal numbers in the context of money • Subtract fractions and mixed numbers with the same denominator
Year 5 *Abstract formal methods* (with representations if needed)	• Add using mental strategies • Add whole numbers with more than 4 digits • Add decimals with up to 2 decimal places • Complements to 1 • Add fractions with denominators that are multiples	• Subtract whole numbers with more than 4 digits • Subtract using mental strategies • Subtract decimals with up to 2 decimal places • Complements to 1 • Subtract fractions with denominators that are multiples
Year 6 *Abstract formal methods* (with representations if needed)	• Add integers up to 10 million • Add decimals with up to 3 decimal places • Order of operations • Negative numbers • Add fractions	• Subtract integers up to 10 million • Subtract decimals with up to 3 decimal places • Order of operations • Negative numbers • Subtract fractions
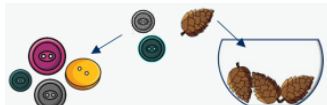
Click on the links to access the required year group and operation:		
Nursery	Addition	Subtraction
Reception	Addition	Subtraction
Year 1	Addition	Subtraction
Year 2	Addition	Subtraction
Year 3	Addition	Subtraction
Year 4	Addition	Subtraction
Year 5	Addition	Subtraction
Year 6	Addition	Subtraction

Where skills are divided into more than one section across the page, there is a progression in the level of difficulty from left to right. For example, when adding across a 10, children need to be able to add across 10 itself, before making links with related facts.
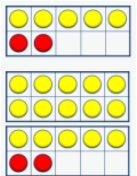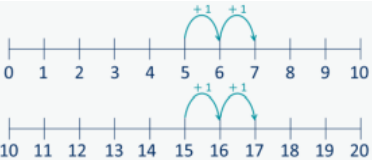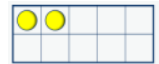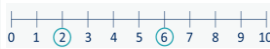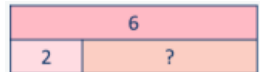
ADDITION
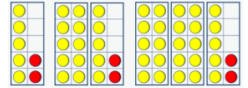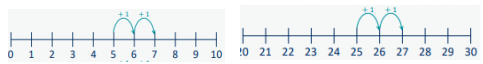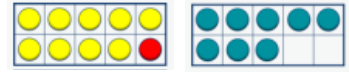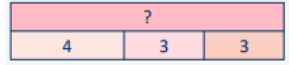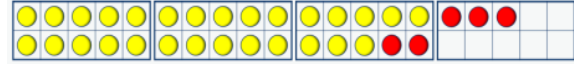
Nursery	- Begin to have an understanding of numbers to 5 - We recommend focusing on noticing, representing small quantities, perceptual subitising and counting.
Progression of skills	**Key representations**
Subitise to 3 Instantly see how many. Begin to link numerals to quantities.	How many do you see?
Count how many Begin to count objects using 1-1 correspondence.	How many are there?　　　　　　　　Count out … from a larger group. 　　　　　　　　　　　　　　　　E.g. Collect 3 beanbags for a game.
Make numbers to 5 Start by showing 1, 2 and 3 using fingers.	Show me…　　　　　　　Begin to link numerals to quantities.
Add 1 more Through stories, songs and rhymes.	How many do I have now?
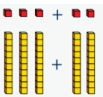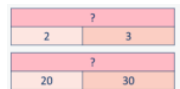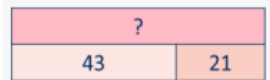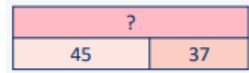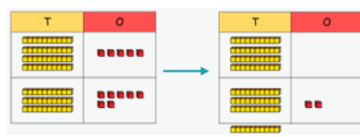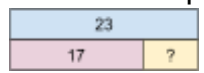
Reception	- Have a deep understanding of numbers to 10, including the composition of each number. - Subitise (recognise quantities without counting) up to 5 - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and some number bonds to 10, including double facts.
Progression of skills	**Key representations**
Conceptually subitise to 5 Notice the parts that make up the whole.	What do you see? How do you see it?
1 more Continue to link to stories, songs and rhymes.	1 more than … is …
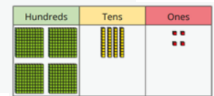
Notice the composition of numbers within 10 Link to stories, songs and rhymes.	How many…? How many…? How many altogether?	How many ways can you make…?
Combine 2 groups 2 groups are combined to find the total.	There are …. There are …. There are …. altogether.	….. and …. make ….
Add more A quantity has increased.	First… Then…. Now….	I have …. I add …. more. Now I have….

Year 1	● Read, write and interpret mathematical statements involving addition (+) and equals (=) signs. ● Represent and use number bonds within 20 ● Add 1-digit and 2-digit numbers to 20, including zero. ● Solve one-step problems that involve addition, using concrete objects and pictorial representations, and missing number problems such as 7 = _ + 2
Progression of skills	**Key representations**
Add together (aggregation) 2 quantities are combined to find the total.	There are … There are … … is a part. … is a part. ... plus … is equal to … There are … altogether. … is the whole. … is equal to …. + … 6 4 2 4 + 2 = 6 2 + 4 = 6 6 = 4 + 2 6 = 2 + 4
Add more (augmentation) A quantity is increased.	First… Then… Now… I start at … I jump on … I land on … ... plus … is equal to … 1 2 3 4 5 6 7 8 9 10 0 1 2 3 4 5 6 7 8 9 10 4 + 2 = 6 2 + 4 = 6 6 = 4 + 2 6 = 2 + 4
Bonds within 10 Include bonds for each number within 10 Encourage noticing patterns.	… is made of … and … … can be partitioned into … and … ... plus … is equal to … … and … make … 6 4 2 6 + 0 = 6 5 + 1 = 6 4 + 2 = 6 3 + 3 = 6 2 + 4 = 6 1 + 5 = 6 0 + 6 = 6

Related facts within 20 Make links to known facts. ...	I know that …and...=… so ...and… =...	… more than … is … so … more than … is … What patterns do you notice? $$5 + 2 = 7$$ $$15 + 2 = 17$$ $$7 = 5 + 2$$ $$17 = 15 + 2$$
Missing numbers Make links to known facts.	How many more do you need to make …?	If … is the whole and … is a part, the other part must be … … plus … is equal to … $$2 + \square = 6$$ $$6 = 2 + \square$$

Year 2	● Recall and use addition facts to 20 fluently, and derive and use related facts up to 100 ● Add numbers using concrete objects, pictorial representations, and mentally, including: ○ a two-digit number and 1s ○ a two-digit number and 10s ○ 2 two-digit numbers ○ adding 3 one-digit numbers ● Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Progression of skills	**Key representations**
Add ones to any number (related facts) Make links to known facts.	I know that … and ... = … … more than … is … What do you notice? so … and … = ... so … more than … is … Can you continue the pattern? $$5 + 2 = 7$$ $$15 + 2 = 17$$ $$25 + 2 = 27…$$
Add three 1-digit numbers Prompt children to understand that addition can be done in any order and to make links to known facts.	… and … are a bond to 10 Double … + … = … What do you notice? 10 + … = … Which addition is the easiest to calculate? $$8 + 9 + 1 =$$ $$8 + 1 + 9 =$$ $$9 + 1 + 8 =$$
Add across a 10 Partition the number being added to make a full ten.	… can be partitioned into … and … I add … to get to … then I add … $$8 + 5 = 13$$ $$28 + 5 = 33$$

Add multiples of 10 Make links to known facts within ten.	… ones + … ones = … ones so … tens + … tens = … tens	3 + 2 = 5 30 + 20 = 50	What is the same? What is different?
Add 10s to any number Make links to known facts.	… tens + … tens = … tens … tens and … ones = …		I know that … and ... = … so … and … = ... 30 + 20 = 50 34 + 20 = 54
Add 2-digit numbers (not across a ten) Lining up ones and tens in columns will support later written methods.	… ones + … ones = … ones … tens + … tens = … tens		3 ones + 1 one = 4 ones 4 tens + 2 tens = 6 tens 6 tens + 4 ones = 64
Add 2-digit numbers (across ten) Begin to exchange 10 ones for 1 ten.	There are …. ones, so I do/do not need to make an exchange. … ones = … ten and … ones	5 ones + 7 ones = 12 ones 12 ones = 1 ten and 2 ones 4 tens + 3 tens + 1 ten = 8 tens 8 tens and 2 ones = 82	
Missing numbers Solve missing number problems and use the inverse to check.	How many more do you need to make …? 6 + ☐ = 10 10 − ☐ = 6	If … is a whole and … is a part, then … is the other part.	… can be partitioned into … and … 10 + 8 = 12 + ☐

Year 3	• Add numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds. • Add numbers with up to three digits, using formal written methods of columnar addition. • Add fractions with the same denominator within 1 whole. • Calculate the time taken by particular events or tasks.
Progression of skills	**Key representations**
Add 1s/10s/100s to 3-digit number Emphasis on mental strategies including number bonds and related facts. Prompt children to notice which digit changes.	The ones/tens/hundreds column will increase by … What patterns do you notice? 444 + 5 = 444 + 50 = 444 + 500 = 235 + 3 = 604 + 20 = 111 + ☐ = 118 235 + 30 = 604 + 50 = 111 + ☐ = 181 235 + 300 = 604 + 90 = 111 + ☐ = 811
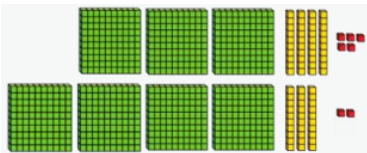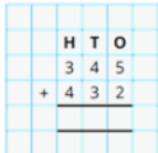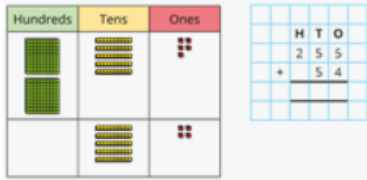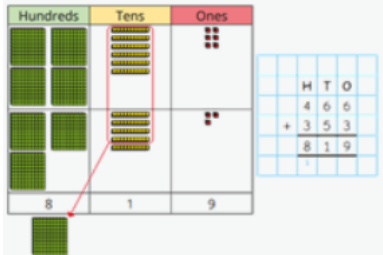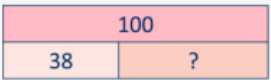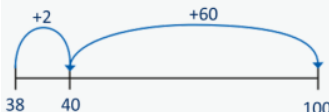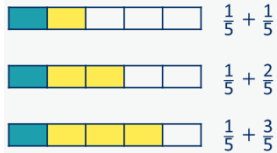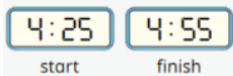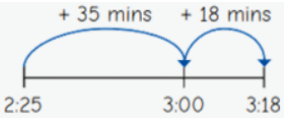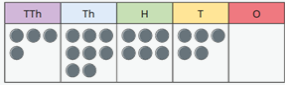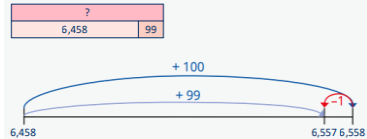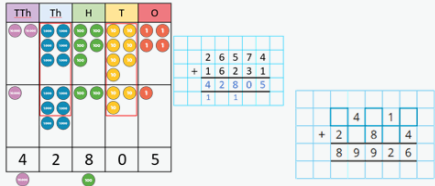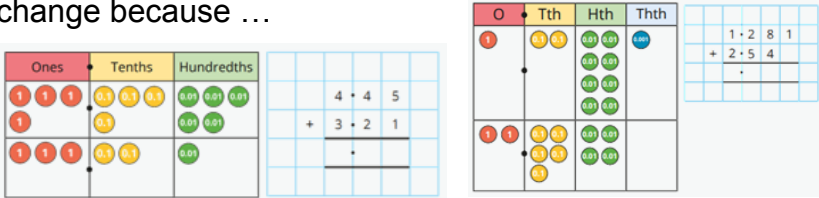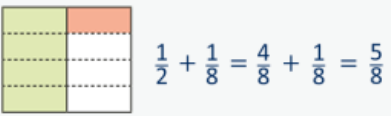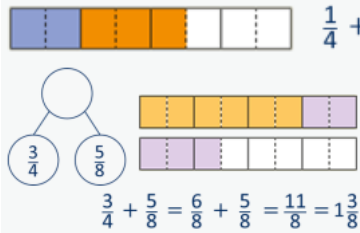
Add two numbers (no exchange) Mental strategies and introduction of formal written methods.	... ones + … ones = … ones ... tens + … tens = … tens ... hundreds + … hundreds = … hundreds	
Add two numbers across a 10 or 100 Formal written method involving up to 2 exchanges including 3-digit plus 2-digit numbers.	There are … ones, so I do/do not need to make an exchange. There are … tens, so I do/do not need to make an exchange. … ones = … ten and … ones. … tens = … hundred and … tens.	
Complements to 100 Pairs of numbers which total 100	… plus … is equal to 100 I add … to get to the next 10, then ... to get to 100	$38 + 62 = 100$ $62 + 38 = 100$ $100 = 38 + 62$ $100 = 62 + 38$
Add fractions with the same denominator within 1 whole Make links with known facts.	When adding fractions with the same denominator, I only add the numerator. … fifths + … fifths = … fifths	$\frac{1}{5} + \frac{1}{5}$ $\frac{1}{5} + \frac{2}{5}$ $\frac{1}{5} + \frac{3}{5}$
Calculate the duration of events Find durations of time between a given start and end point. Children calculate complements to 60.	From … to … o'clock is … minutes. From … o'clock to … is … minutes. The total time taken is … minutes.	

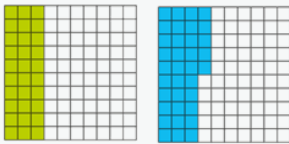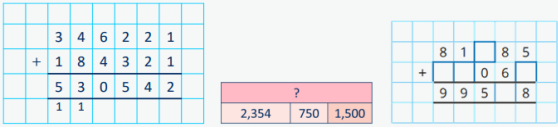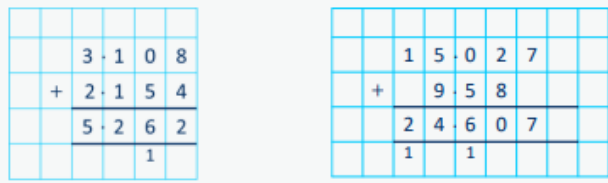|	
Year 4	● Add numbers with up to 4 digits using a formal written method. ● Solve simple measure and money problems involving fractions and decimals to 2 decimal places. ● Add fractions with the same denominator.
Progression of skills	**Key representations**

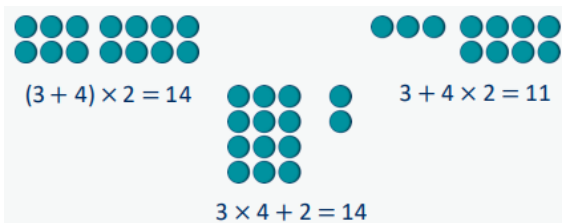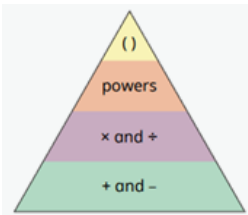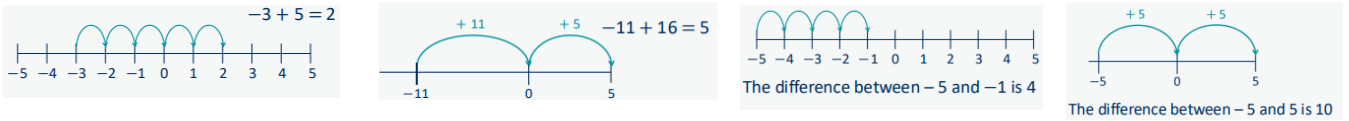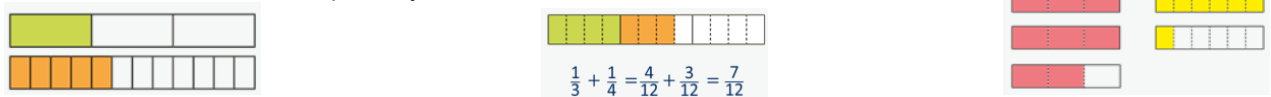|	
Add 1s, 10s and 100s to a 4-digit number Emphasis on mental strategies including number bonds and related facts. Prompt children to notice which digit changes.	The ones/tens/hundreds/thousands column will increase by … What patterns do you notice? _[Thousands / Hundreds / Tens / Ones place value chart]_ $3,425 + 3 =$ $3,425 + 300 =$ $3,425 + 30 =$ $3,425 + 3,000 =$ $2,350 + 3 =$ $2,350 + 30 =$ $2,350 + 300 =$ $2,350 + 3,000 =$ $6,040 + 200 =$ $6,040 + 500 =$ $6,040 + 900 =$ $2,211 + \boxed{\ } = 2,251$ $2,211 + \boxed{\ } = 2,215$ $2,211 + \boxed{\ } = 2,511$
Add up to two 4-digit numbers Formal written method with up to 3 exchanges. Encourage children to estimate and use inverse operations to check answers to calculations.	There are … ones/tens/hundreds so I do/do not need to make an exchange. I can exchange 10 … for 1 … _[Place value counters chart Th H T O]_ $\begin{array}{r} \text{Th H T O} \\ 4\ 6\ 7\ 3 \\ +\ 1\ 5\ 1\ 8 \\ \hline 6\ 1\ 9\ 1 \end{array}$
Add decimal numbers in the context of money Emphasis on partitioning and use of number lines rather than formal written calculations.	… pence + … pence = … pence 5p … pounds + … pounds = … pounds 45p + 25p = 70p £2 + £3 = £5 £5 + 70p = £5.70 _[hat £2.45, scarf £3.25]_ £3.25 can be partitioned into £3 + 20p + 5p _[number line: £2.45 +£3 → £5.45 +20p → £5.65 +5p → £5.70]_
Add fractions and mixed numbers with the same denominator beyond 1 whole	When adding fractions with the same denominator, I only add the numerator. … fifths + … fifths = … fifths $\frac{3}{5} + \frac{4}{5} = \frac{7}{5} = 1\frac{2}{5}$ _[number line with +$\frac{3}{5}$ jump and bar models]_

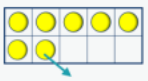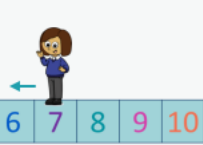|	
Year 5	• Add whole numbers with more than 4 digits, including using formal written methods. • Add numbers mentally with increasingly large numbers. • Add decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complements of 1 • Add fractions with the same denominator, and denominators that are multiples of the same number.
Progression of skills	**Key representations**

Add using mental strategies Add 1s, 10s, 100s, etc. to any number. Use number bonds and related facts.	To add …, I can add … then subtract … $48,650 + 300 =$ $48,650 + 30,000 =$ $48,650 + 30 =$
Add whole numbers with more than 4 digits Encourage children to estimate and use inverse operations to check answers to calculations.	I can exchange 10 … for 1 …
Add decimals with up to 2 decimal places Progress from the same number of decimal places to a different number of decimal places, and from no exchange to exchange.	I do/do not need to make an exchange because … I can exchange 10 … for 1 …
Complements to 1 Pairs of numbers (up to 3 decimal places) which total . Encourage children to make links with bonds to 10 and complements to 100 / 1,000	$0.3 + \boxed{} = 1$ $0.35 + \boxed{} = 1$ $4 + 6 = 10$ $\quad$ $0.4 + 0.6 = 1$ $44 + 56 = 100$ $\quad$ $0.44 + 0.56 = 1$ $444 + 556 = 1,000$ $\quad$ $0.444 + 0.556 = 1$
Add fractions with denominators that are a multiple of one another Encourage children to convert fractions to the same denominator before adding. Progress from adding fractions within 1 whole to adding fractions beyond 1 whole.	The denominator has been multiplied by …, so the numerator needs to be multiplied by… for the fractions to be equivalent. $\frac{1}{2} + \frac{1}{8} = \frac{4}{8} + \frac{1}{8} = \frac{5}{8}$ $\quad$ $\frac{1}{4} + \frac{3}{8} = \frac{2}{8} + \frac{3}{8} = \frac{5}{8}$ $\frac{3}{4} + \frac{5}{8} = \frac{6}{8} + \frac{5}{8} = \frac{11}{8} = 1\frac{3}{8}$
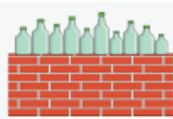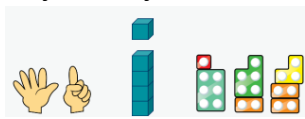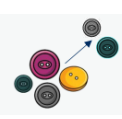
Year 6	● Add larger numbers, using the formal written method of columnar addition. ● Use their knowledge of the order of operations to carry out calculations involving the 4 operations. ● Calculate intervals across zero. ● Add fractions with different denominators and mixed numbers, using equivalent fractions.

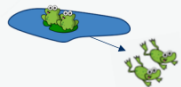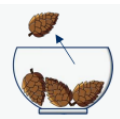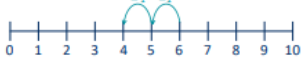| Progression of skills	Key representations
Add integers up to 10 million Encourage children to estimate and use inverse operations to check answers to calculations.	
Add decimals with up to 3 decimal places Progress to numbers with digits in different place value columns. Encourage children to check they have lined up the columns correctly.	I do/do not need to make an exchange because ...
Order of operations Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction. *When no brackets are shown and the operations have the same priority, work left to right.	… has greater priority than …, so the first part of the calculation I need to do is … $(3+4) \times 2 = 14$ $3 + 4 \times 2 = 11$ $3 \times 4 + 2 = 14$
Negative numbers Children add to negative numbers and carry out calculations which cross 0	$-3 + 5 = 2$ $-11 + 16 = 5$ The difference between -5 and -1 is 4 The difference between -5 and 5 is 10
Add fractions Convert fractions to the same denominator before adding. Progress from fractions where one denominator is a multiple of the other, to any fractions and then to mixed numbers.	The denominator has been multiplied by …, … so the numerator needs to be multiplied by … The lowest common multiple of … and … is … …is made up of … wholes and $\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$
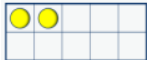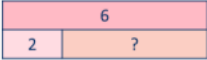
SUBTRACTION
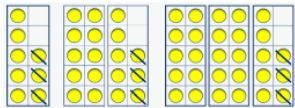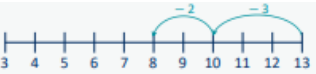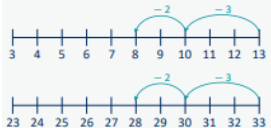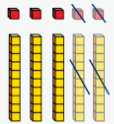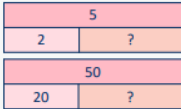
Nursery -	• Begin to have an understanding of numbers to 5 • We recommend focusing on noticing and representing small quantities, perceptual subitising and counting.
Progression of skills	**Key representations**
Subitise to 3 Instantly see how many.	How many do you see?
Count how many Begin to count objects using 1-1 correspondence.	How many are there? Count out … from a larger group. E.g. Collect a cup for everyone at the table.
Make numbers to 5 Start by showing 1, 2 and 3 using fingers.	Show me… Begin to link numerals to quantities.
Take 1 away Through stories, songs and rhymes.	How many do we have now?
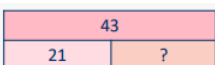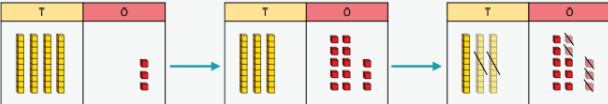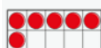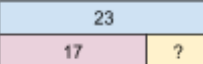
Reception-	• Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (and some subtraction facts) and some number bonds to 10, including double facts.
Progression of skills	**Key representations**
Conceptually subitise to 5 Notice the parts that make up the whole.	What do you see? How do you see it?
1 less Continue to link to stories, songs and rhymes.	1 less than … is …
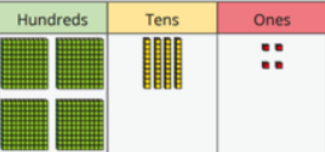
Notice the composition of numbers within 10 Link to stories, songs and rhymes.	How many…? How many…? How many altogether?	How many ways can you make…?
Partition Using objects, explore different ways to partition a number into 2 or more parts.	There are … altogether. I can see … here and … there.	… and … make …
Take away A quantity is reduced.	First… Then…. Now….	I have …. I take …. away. Now I have….

Year 1-	● Read, write and interpret mathematical statements involving subtraction (–) and equals (=) signs. ● Represent and use number bonds and related subtraction facts within 20 ● Subtract one-digit and two-digit numbers to 20, including zero. ● Solve one-step problems that involve subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = _ − 9
Progression of skills	**Key representations**
Find a part Link to number bonds and known facts. E.g. 2 + 4 = 6 so if 6 is the whole and 4 is a part, the other part must be 2	There are … in total. … is the whole. … subtract … is equal to … … are … How many are not …? … is a part. … is a part. … is equal to … − … $6 - 2 = 4$ $4 = 6 - 2$ $6 - 4 = 2$ $2 = 6 - 4$
Take away A quantity is decreased.	First… Then… Now… I start at … I jump back … I land on … ... minus … is equal to … $6 - 2 = 4$ $4 = 6 - 2$ $6 - 4 = 2$ $2 = 6 - 4$
Bonds within 10 Focus on subtraction facts. Encourage noticing patterns.	… is made of … and … … can be partitioned into … and … … minus … is equal to … $6 - 0 = 6$ … and … make … $6 - 1 = 5$ $6 - 2 = 4$ $6 - 3 = 3$ $6 - 4 = 2$ $6 - 5 = 1$ $6 - 6 = 0$

Related facts within 20 Make links to known facts.	I know that … minus ... = … so … minus … = ... 	… less than … is … so … less than … is … 	What patterns do you notice? $8 - 3 = 5$ $18 - 3 = 15$ $5 = 8 - 3$ $15 = 18 - 3$
Missing numbers Make links to known facts.	How many do you need to subtract to make …? 	If … is the whole and … is a part, the other part must be… | 6	
2	?		… minus … is equal to … $2 + \square = 6$ $6 = 2 + \square$
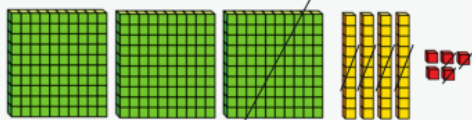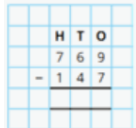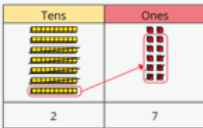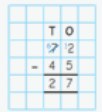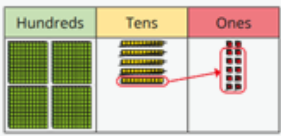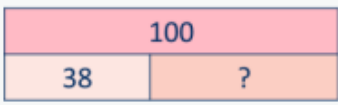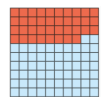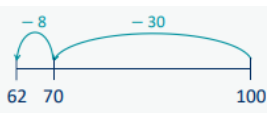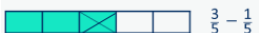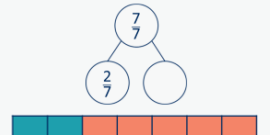
Year 2-	- Recall and use subtraction facts to 20 fluently, and derive and use related facts up to 100 - Subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and 1s - a two-digit number and 10s 2 two-digit numbers - Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Progression of skills	**Key representations**
Subtract ones from any number (related facts) Make links to known facts.	I know that … minus ... = … … less than … is … What do you notice? so … minus … = ... so … less than … is … Can you continue the pattern? $8 - 3 = 5$ $18 - 3 = 15$ $28 - 3 = 25...$
Subtract across a 10 Partition the number being subtracted to bridge through a ten.	… can be partitioned into … and … Make links with related facts.
Subtract multiples of 10 Make links to known facts within ten.	… ones - … ones = … ones What is the same? so … tens - … tens = … tens What is different? $5 - 2 = 3$ $50 - 20 = 30$ | 5	
2	?
50	
20	?	

Subtract 10s from any number Make links to known facts.	… tens - … tens = … tens … tens and … ones = …	I know that … minus ... = … so … minus … = ... $50 - 20 = 30$ $54 - 20 = 34$
Subtract two 2-digit numbers (not across a ten)	… ones - … ones = … ones … tens - … tens = … tens 43 21 ?	3 ones − 1 one = 2 ones 4 tens − 2 tens = 2 tens 2 tens and 2 ones = 22
Subtract two 2-digit numbers (across a ten) Begin to exchange 1 ten for 10 ones.	I need to make an exchange because I do not have enough ones to subtract … ones.	3 ones − 5 ones (I need to exchange 1 ten for 10 ones) 13 ones − 5 ones = 8 ones 3 tens − 2 tens = 1 ten 1 ten and 8 ones = 18
Missing numbers Solve missing number problems and use the inverse to check.	How many more do you need to subtract to make …? $10 - \Box = 6$ $6 + \Box = 10$	If … is a whole and … is a part, then … is the other part. 23 17 ? …can be partitioned into …and… $18 - \Box = 12 + 2$
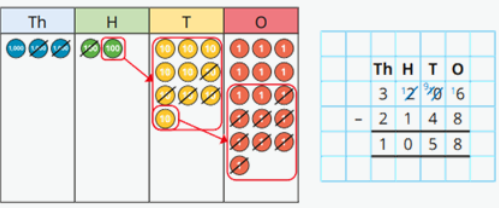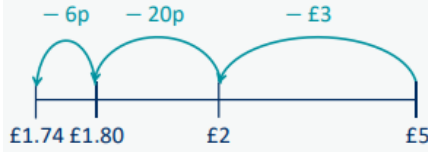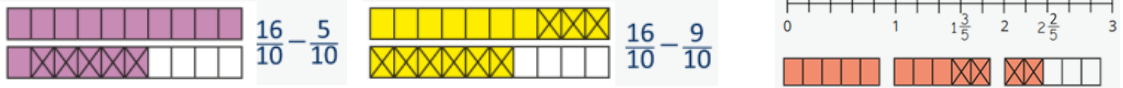
Year 3-	- Subtract numbers mentally, including: - a three-digit number and ones, - a three-digit number and tens, - a three-digit number and hundreds. - Subtract numbers with up to three digits, using formal written methods. - Subtract fractions with the same denominator within 1 whole.
Progression of skills	**Key representations**
Subtract 1s, 10s and 100s from a 3-digit number Emphasis on mental strategies including number bonds and related facts. Prompt children to notice which digit changes.	The ones/tens/hundreds column will decrease by $444 - 2 =$ $444 - 20 =$ $444 - 200 =$ Hundreds / Tens / Ones What patterns do you notice? $235 - 3 =$ $624 - 20 =$ $118 - \Box = 111$ $235 - 30 =$ $654 - 50 =$ $181 - \Box = 111$ $235 - 300 =$ $694 - 90 =$ $811 - \Box = 111$
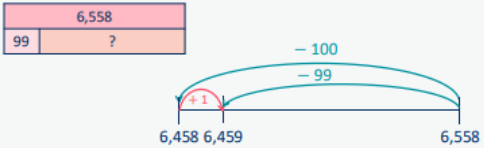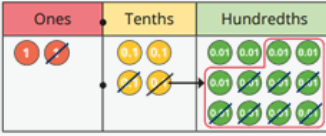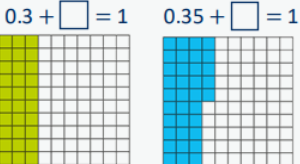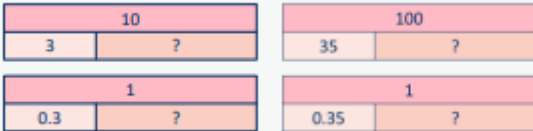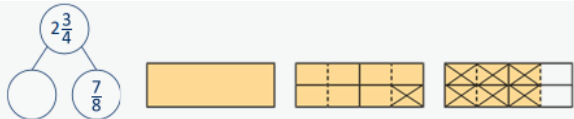
Subtract two numbers (no exchange) Mental strategies and introduction of formal written methods.	... ones - … ones = … ones ... tens - … tens = … tens ... hundreds - … hundreds = … hundreds
Subtract two numbers across a 10 or 100 Formal written method involving up to 2 exchanges including 3-digit subtract 2-digit numbers.	I need to subtract … ones, so I do/do not need to make an exchange. I need to subtract … tens, so I do/do not need to make an exchange. I can exchange 1 … for 10 …
Complements to 100 Focus on subtraction facts. Encourage children to notice patterns.	100 minus … is equal to … I subtract … tens, then I subtract … ones. $100 - 38 = 62$ $100 - 62 = 38$ $62 = 100 - 38$ $38 = 100 - 62$
Subtract fractions with the same denominator within 1 whole Make links with known facts.	When subtracting fractions with the same denominator, I only subtract the numerator. … fifths − … fifths = … fifths $\frac{5}{5} - \frac{1}{5}$ $\frac{4}{5} - \frac{1}{5}$ $\frac{3}{5} - \frac{1}{5}$

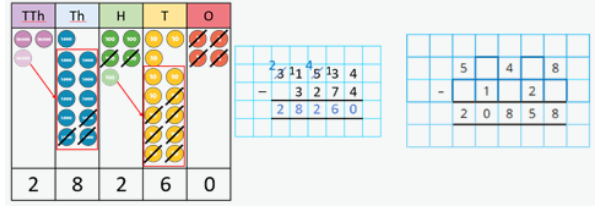| Year 4-	● Subtract numbers with up to 4 digits using a formal written method. ● Solve simple measure and money problems involving fractions and decimals to 2 decimal places. ● Subtract fractions with the same denominator.
Progression of skills	Key representations
Subtract 1s, 10s, 100s and 1,000s from a 4-digit number Emphasis on mental strategies including number bonds and related facts. Prompt children to notice which digit changes.	The ones/tens/hundreds/thousands column will decrease by … What patterns do you notice? $3,425 - 2 =$ $3,425 - 200 =$ $3,425 - 20 =$ $3,425 - 2,000 =$ $4,356 - 3 =$ $4,356 - 30 =$ $4,356 - 300 =$ $4,433 - \boxed{} = 4,430$ $4,356 - 3,000 =$ $4,433 - \boxed{} = 4,033$ $4,433 - \boxed{} = 4,403$ $6,940 - 200 =$ $6,940 - 300 =$ $6,940 - 400 =$

Subtract up to two 4-digit numbers Formal written method with up to 3 exchanges. Encourage children to estimate and use inverse operations to check answers to calculations.	I need to subtract… ones/tens/hundreds. I do/do not need to make an exchange. I can exchange 1… for 10…
Subtract decimal numbers in the context of money Emphasis here is on partitioning and use of number lines rather than formal written calculations.	I can partition £… into £… and 100p £3.26 can be partitioned into £3 + 20p + 6p £… − £… = £… 100p − …p = …p £5 − £3.26 £4 − £3 = £1 100p − 26p = 74p £5 - £3.26 = £1.74
Subtract fractions and mixed numbers with the same denominator Include subtracting fractions from wholes.	When subtracting fractions with the same denominator, I only subtract the numerator. … tenths − … tenths = … tenths

Year 5-	● Subtract whole numbers with more than 4 digits. ● Subtract numbers mentally with increasingly large numbers. ● Subtract decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complements of 1 ● Subtract fractions with the same denominator, and denominators that are multiples of the same number.
Progression of skills	**Key representations**
Subtract whole numbers with more than 4 digits Encourage children to estimate and use inverse operations to check answers to calculations.	I can exchange 1 … for 10 …

Subtract using mental strategies		To subtract …, I can subtract … then add …
Subtract 1s, 10s, 100s etc from any number. Use number bonds and related facts.	$48,650 - 300 =$ $48,650 - 30,000 =$ $48,650 - 30 =$	

Subtract decimals with up to 2 decimal places	I do/do not need to make an exchange because … I can exchange 10 … for 1 …
Progress from the same number of decimal places to a different number of decimal places and from no exchange to exchange.	

Complements to 1	
Encourage children to make links with bonds to 10 and complements to 100 and 1,000 when finding a missing part or subtracting from 1	$0.3 + \boxed{} = 1$ $0.35 + \boxed{} = 1$ $10 - 4 = 6$ $1 - 0.4 = 0.6$ $100 - 44 = 56$ $1 - 0.44 = 0.56$ $1,000 - 444 = 556$ $1 - 0.444 = 0.556$

Subtract fractions with denominators that are a multiple of one another	The denominator has been multiplied by …, so the numerator needs to be multiplied by… for the fractions to be equivalent.
Convert fractions to the same denominator before subtracting. Progress from subtracting fractions within 1 whole to subtracting from a mixed number.	 $\frac{1}{3} - \frac{1}{15} = \frac{5}{15} - \frac{1}{15} = \frac{4}{15}$ $\frac{2}{3} - \frac{2}{9} = \frac{6}{9} - \frac{2}{9} = \frac{4}{9}$

Year 6-	- Subtract larger numbers, using the formal written methods of columnar subtraction. - Use their knowledge of the order of operations to carry out calculations involving the 4 operations. - Calculate intervals across zero. - Subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
Progression of skills	**Key representations**

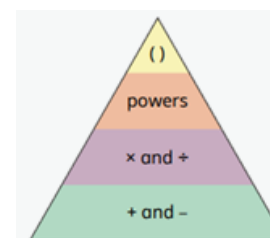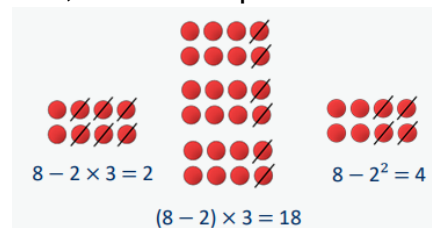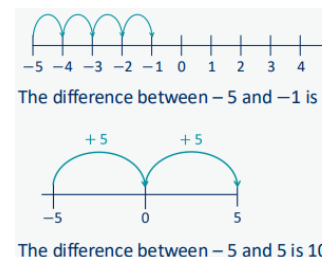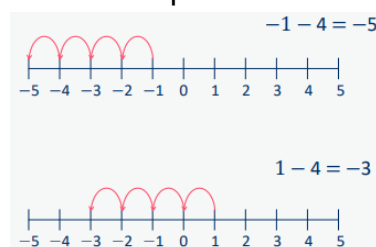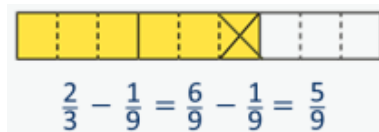|	
Subtract integers up to 10 million Encourage children to estimate and use inverse operations to check answers to calculations.	A column subtraction example with exchanges showing $23456221 - 1843211 = 1619000$, a bar model showing 4,604 split into 2,354, 750 and ?, and a column subtraction $8\_485\_ - 36\_\_4 = 55555$
Subtract decimals with up to 3 decimal places Progress from the same number of decimal and whole number places to a different number of decimal and whole number places.	I do/do not need to make an exchange because ... $6.7\,3 - 1.3\,4 = 5.3\,9$ $1.6\,1\,5 - 0.6\,4 = 0.9\,7\,5$
Order of operations Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction. *When no brackets are shown and the operations have the same priority, work left to right.	... has greater priority than ..., so the first part of the calculation I need to do is ... $8 - 2 \times 3 = 2$ $8 - 2^2 = 4$ $(8 - 2) \times 3 = 18$ Priority pyramid: ( ), powers, × and ÷, + and −
Negative numbers Children subtract from positive and negative numbers and calculate intervals across 0	... minus ... is equal to ... $-1 - 4 = -5$ $1 - 4 = -3$ The difference between -5 and -1 is 4 $+5$ $+5$ The difference between -5 and 5 is 10
Subtract fractions Convert fractions to the same denominator before subtracting. Progress from fractions where one denominator is a multiple of the other, to any fractions and then subtracting from a mixed number.	The denominator has been multiplied by ..., so the numerator needs to be multiplied by ... The lowest common multiple of ... and ... is ... ...is made up of ... wholes and ... $\frac{2}{3} - \frac{1}{9} = \frac{6}{9} - \frac{1}{9} = \frac{5}{9}$ $\frac{7}{9} - \frac{1}{2} = \frac{14}{18} - \frac{9}{18} = \frac{5}{18}$ $2\frac{3}{4} - 1\frac{1}{8} = 1\frac{5}{8}$
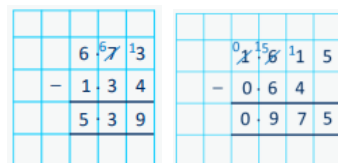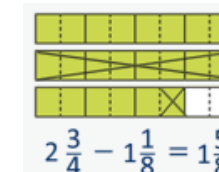
Addend - A number to be added to another.

Aggregation - combining two or more quantities or measures to find a total.

Augmentation - increasing a quantity or measure by another quantity.

Commutative – numbers can be added in any order.

Complement – in addition, a number and its complement make a total e.g. 300 is the complement to 700 to make 1,000

Difference – the numerical difference between two numbers is found by comparing the quantity in each group.

Exchange – Change a number or expression for another of an equal value.

Minuend – A quantity or number from which another is subtracted.

Partitioning – Splitting a number into its component parts.

Reduction – Subtraction as take away.

Subitise – Instantly recognise the number of objects in a small group without needing to count.

Subtrahend - A number to be subtracted from another.

Sum - The result of an addition.

Total – The aggregate or the sum found by addition.