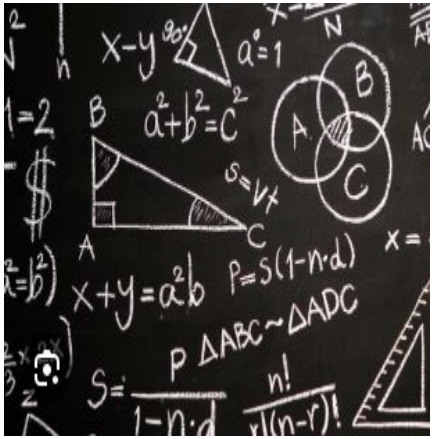
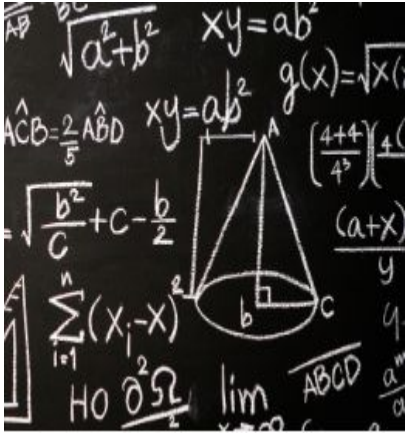


Primary maths

Calculation policy

Updated September 2024



Elmhurst Junior School has adopted the White Rose calculation policy to support pupils progression in mathematics across the Year groups.

Progression of skills - Subtraction

White Rose MATHS

Year group	Skill
Year 2	• 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	• 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 with the same denominator within 1 whole

Progression of skills - Subtraction

White Rose MATHS

Year group	Skill
Year 4	• 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	• 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 a multiple of one another
Year 6	• Subtract integers up to 10 million • Subtract decimals with up to 3 decimal places • Order of operations • Negative numbers • Subtract fractions

Subtraction

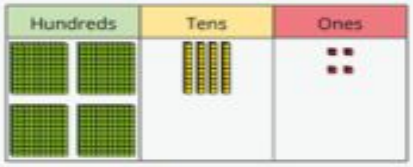
White Rose MATHS

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 =

777 − 4 =
777 − 40 =
777 − 400 =

What patterns do you notice?

235 − 3 =
235 − 30 =
235 − 300 =

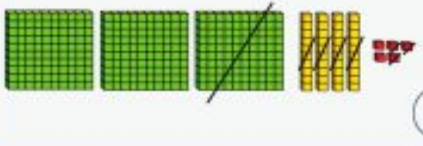
624 − 20 =
654 − 50 =
694 − 90 =

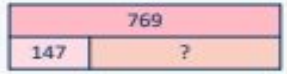
118 − ☐ = 111
181 − ☐ = 111
811 − ☐ = 111

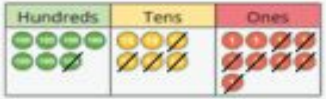
Subtract two numbers (no exchange)

Mental strategies and introduction of formal written method.

… ones − … ones = … ones
… tens − … tens = … tens
… hundreds − … hundreds = … hundreds

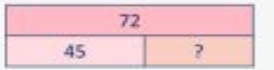
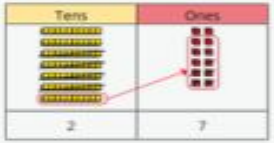
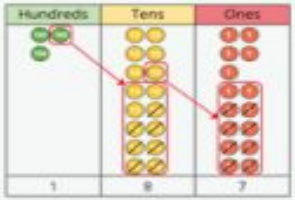
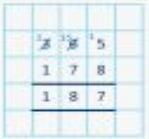
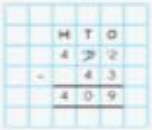
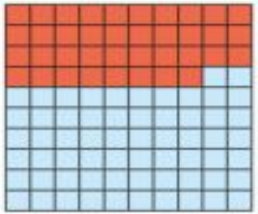
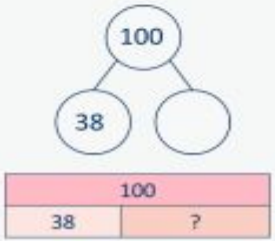
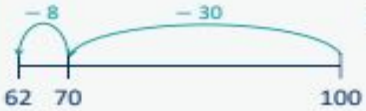






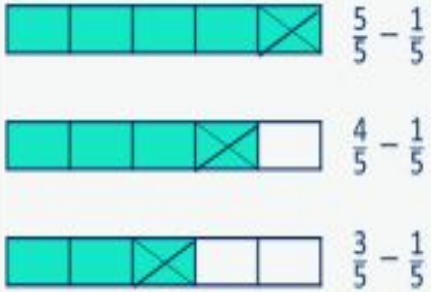
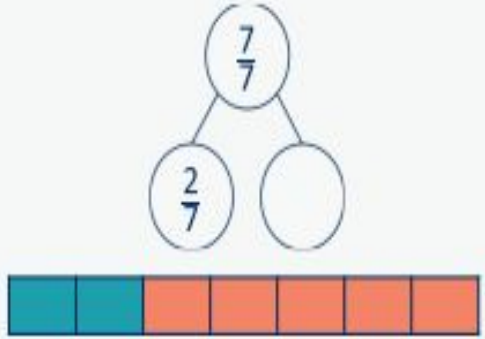
Subtraction

White Rose MATHS

Progression of skills	Key representations
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. I do/do not need to make an exchange. I need to subtract … tens. 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.  $100 - 38 = 62$ $100 - 62 = 38$ $62 = 100 - 38$ $38 = 100 - 62$

Subtraction

White Rose MATHS

Progression of skills	Key representations
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  $\frac{5}{5} - \frac{1}{5}$ $\frac{4}{5} - \frac{1}{5}$ $\frac{3}{5} - \frac{1}{5}$ 

Subtraction

White Rose MATHS

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 ...

$3,425 - 2 =$
$3,425 - 20 =$
$3,425 - 200 =$
$3,425 - 2,000 =$

What patterns do you notice?

$4,356 - 3 =$
$4,356 - 30 =$
$4,356 - 300 =$
$4,356 - 3,000 =$

$6,940 - 200 =$
$6,940 - 300 =$
$6,940 - 400 =$

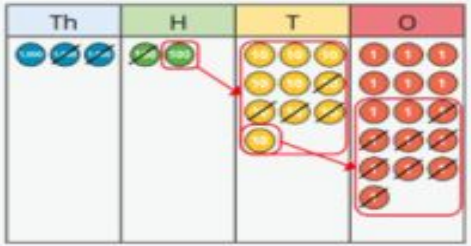
$4,433 - \square = 4,430$
$4,433 - \square = 4,033$
$4,433 - \square = 4,403$

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.

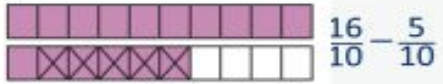
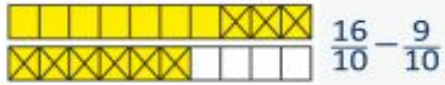
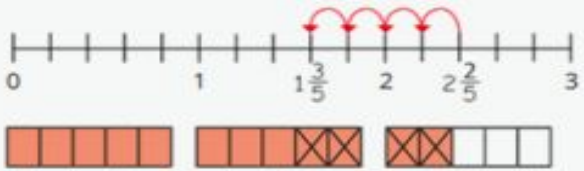
I can exchange 1... for 10...



	Th	H	T	O
	3	12	9	16
−	2	1	4	8
	1	0	5	8

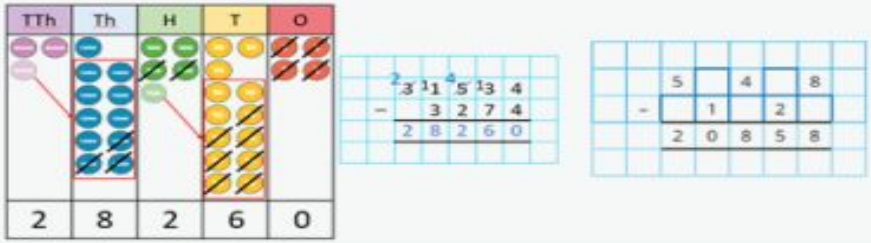
Subtraction

White Rose MATHS

Progression of skills	Key representations	
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 £... − £... = £... 100p − ...p = ...p **£5 − £3.26** £4 − £3 = £1 100p − 26p = 74p £5 - £3.26 = £1.74 	£3.26 can be partitioned into £3 + 20p + 6p 
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  $\frac{16}{10} - \frac{5}{10}$  $\frac{16}{10} - \frac{9}{10}$	 

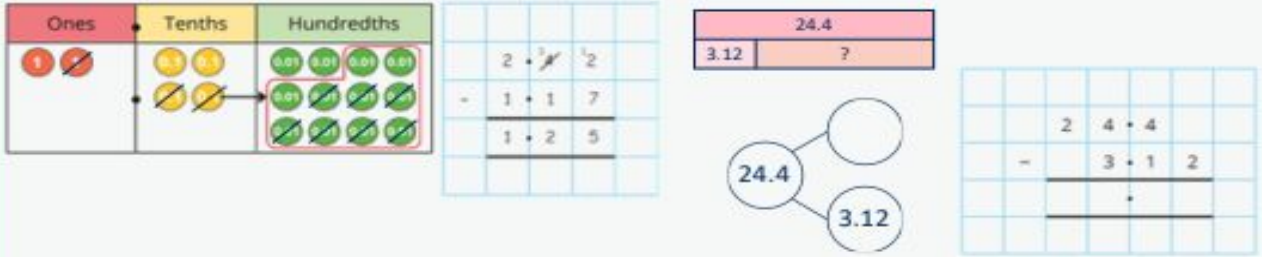
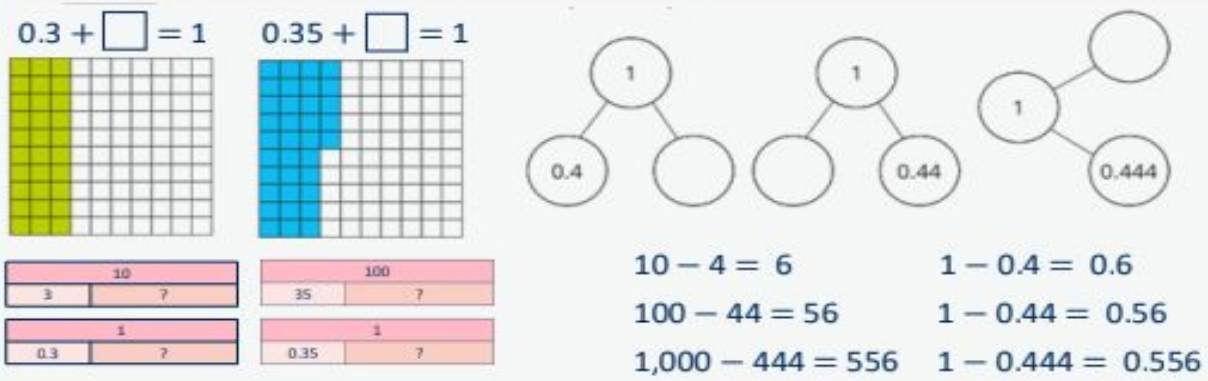
Subtraction

White Rose MATHS

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

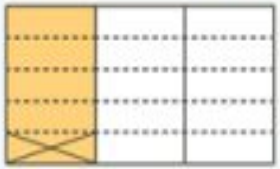
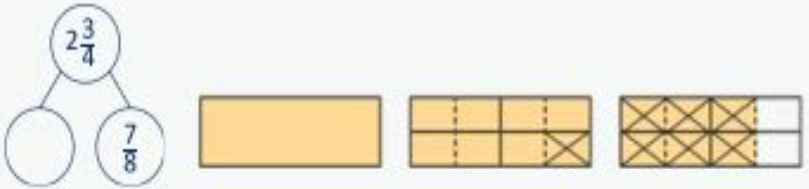
Subtraction

White Rose MATHS

Progression of skills	Key representations
Subtract 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.	
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	

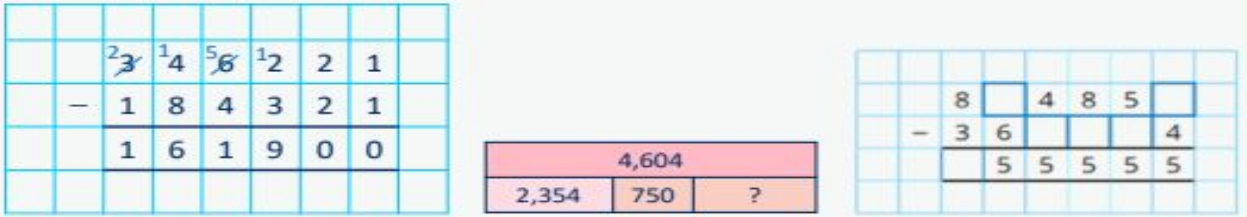
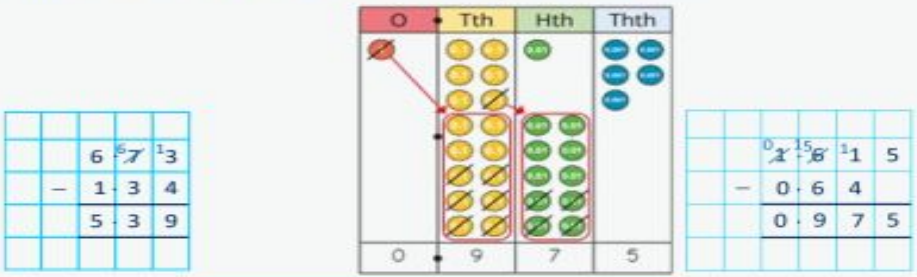
Subtraction

White Rose MATHS

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

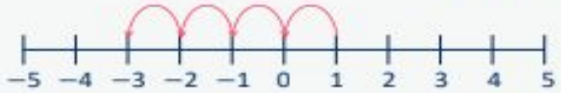
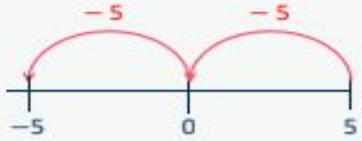
Subtraction

White Rose MATHS

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.	
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 … 

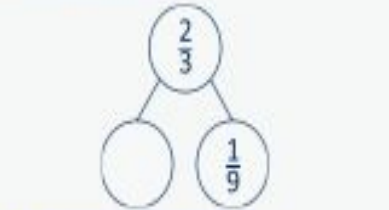
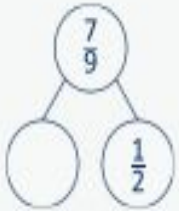
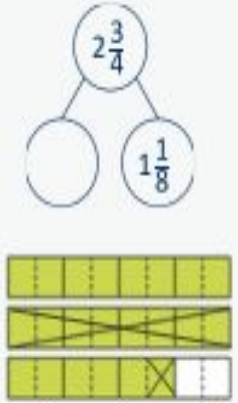
Subtraction

White Rose MATHS

Progression of skills	Key representations
Order of operations Children learn the order of priority for operations in a calculation. Calculations in brackets should be done first. Multiplication and division should be performed before addition and subtraction.	… has greater priority than … , so the first part of the calculation I need to do is …   $8 - 2 \times 3 = 2$ $(8 - 2) \times 3 = 18$ $8 - 2^2 = 4$
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  The difference between 5 and −5 is 10

Subtraction

White Rose MATHS

Progression of skills	Key representations		
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...  $\frac{2}{3} - \frac{1}{9} = \frac{6}{9} - \frac{1}{9} = \frac{5}{9}$	The lowest common multiple of ... and ... is ...  $\frac{7}{9} - \frac{1}{2} = \frac{14}{18} - \frac{9}{18} = \frac{5}{18}$	... is made up of ... wholes and ...  $2\frac{3}{4} - 1\frac{1}{8} = 1\frac{5}{8}$