

Key Stage 2 – Addition

Y3

- Continue with partitioned columnar method.
- Introduce expanded columnar addition.

	H	T	O
2	3	6	
+	7	3	
		9	
1	0	0	
2	0	0	
3	0	9	

Progressing to the compact columnar method.

$\begin{array}{r} \text{TO} \\ 23 \\ + 42 \\ \hline 65 \end{array}$	$\begin{array}{r} \text{HTO} \\ 315 \\ + 624 \\ \hline 939 \end{array}$	$\begin{array}{r} \text{TO} \\ 94 \\ + 73 \\ \hline 167 \end{array}$	$\begin{array}{r} \text{HTO} \\ 561 \\ + 718 \\ \hline 1279 \end{array}$	$\begin{array}{r} \text{TO} \\ 47 \\ + 25 \\ \hline 72 \\ 1 \end{array}$	$\begin{array}{r} \text{HTO} \\ 237 \\ + 516 \\ \hline 753 \\ 1 \end{array}$
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- Add money using both £ and pence in practical contexts.

Video clip:

[Demonstration of expanded 3 digit columnar addition](#)

National Curriculum requirements:

Add numbers with up to 3 digits, using the formal written method of columnar addition.

Key Stage 2 – Subtraction

Y3

- Continue with vertical number line subtraction progressing to the expanded columnar subtraction method.

$$89 - 35 = 54$$

$$80 + 9$$

$$- \underline{30 + 5}$$

$$\underline{50 + 4} = 54$$

- Introduce exchanging through the expanded columnar subtraction method.

$$72 - 47$$



$$60 + 12$$

$$- \underline{40 + 7}$$

$$\underline{20 + 5} = 25$$

- Pro

umnar subtraction.

T O 47 $-\underline{23}$ 24	HTO 864 $-\underline{621}$ 243	T O $\overset{4}{\cancel{5}}1$ $-\underline{36}$ 15
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- Emphasise value of digit, e.g. 4 tens subtract 2 tens = 2 tens. Use the correct language for subtraction i.e. exchange rather than borrow.
- Subtract amounts of money to give change.

Video clips:

[Subtraction - teaching children to consider the most appropriate methods before calculating](#)

[Introducing partitioned column subtraction method, from practical to written](#)

National Curriculum requirements:

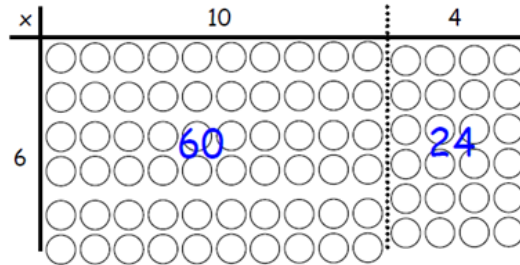
Subtract numbers with up to 3 digits using the formal written method of columnar subtraction.

Key Stage 2 – Multiplication

Y3

- Recall and use multiplication tables for 3, 4 and 8.
- Continue to use arrays and number lines/Cuisenaire rods for 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication. Statements to include the multiplication tables that they know and 2 digit numbers x 1 digit numbers. Pupils use mental methods and progress to formal written methods.
- Introduce grid model.

$$\begin{array}{r|l} \text{X} & 10 \quad 4 \\ 6 & 60 + 24 = 84 \end{array}$$



- Progressing to expanded method of multiplication.

$$\begin{array}{r} \text{T O} \\ 14 \\ \times \quad 5 \\ \hline 20 \quad (5 \times 4) \\ + 50 \quad (5 \times 10) \\ \hline 70 \end{array}$$

Video clips: [Teaching the grid method as an interim step](#)
(Partitioning and counters to introduce grid).

National Curriculum requirements: Multiply 2 digits by 1 digit, using mental and progressing to formal written methods.

Key Stage 2 – Division

Y3

- Recall and use division facts for 3, 4, and 8 times tables.
- Continue with repeated subtraction on a vertical number line.
- Write and calculate mathematical statements for division using the tables they know.
- Introduce grouping method before short division, encourage children to estimate answers before attempting calculation. Create fact box to encourage efficient grouping e.g. not always groups of 10 - 1x, 2x, 5x, 10x, 20x, 50x, 100x.

$$\begin{array}{r} \underline{13} \\ 5) 65 \\ \underline{-50} \quad (5 \times 10) \\ 15 \\ \underline{-15} \quad (5 \times 3) \\ \underline{0} \end{array}$$

- Introduce short division, with exact answers.

$$\begin{array}{r|l} & 32 \\ \hline 3 & 96 \end{array}$$

- Progressing to short division involving carrying, with exact answers.

National Curriculum requirements:

Division questions based on multiplication tables they know.

Divide 2 digits by 1 digit, progressing to formal written methods.

The National Curriculum statutory requirements for Year 3 and the use of written methods are not clear therefore our guidance for Year 3 has been based on the skills required to access Year 4 statutory requirements.

Calculation: Fractions

Year3

Add and subtract fractions with the same denominator within one whole
E.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$