

## Multiplication- Year Four

- Recall multiplication facts for multiplication tables up to  $12 \times 12$
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout

**NB** Ensure that children are confident with the methods outlined in the previous year's guidance before moving on.

Continue to use **empty number lines**, as appropriate (see Y3 guidance).

Further develop the **grid method** for two-digit numbers multiplied by a one-digit number.

$$36 \times 4 = 144$$

X	30	6
4	120	24

$$120 + 24 = 144 \text{ (add the partial products)}$$

**Expanded short multiplication** (two-digit number by a one-digit number):

$$36 \times 4 = 144$$

$$\begin{array}{r} 30 + 6 \\ \text{X} \quad 4 \\ \hline 24 \\ + 120 \\ \hline 144 \end{array}$$

$$(4 \times 6 = 24)$$

$$(4 \times 30 = 120)$$

Include an addition symbol when adding partial products.

Refine the recording in preparation for formal short multiplication:

$$36 \times 4 = 144$$

$$\begin{array}{r} 36 \\ \times 4 \\ \hline + 24 \quad (4 \times 6) \\ \hline 120 \quad (4 \times 30) \\ \hline 144 \end{array}$$

This leads to **short multiplication (formal method)** of a two-digit number multiplied by a one-digit number:

$$36 \times 4 = 144$$

$$\begin{array}{r} 36 \\ \times 4 \\ \hline 144 \\ \hline \end{array}$$

Use the language of place value to ensure understanding.  
Ensure that the digit 'carried over' is written under the line in the correct column.

Continue to practise the formal method of short multiplication of a two-digit number by a one-digit number throughout Y4.

**If children are confident**, continue to develop short multiplication with three-digit numbers multiplied by a one-digit number.

If necessary, return to **the grid method and/or expanded method** first:

$$127 \times 6 = 762$$

<b>x</b>	100	20	7
6	600	120	42

$$600 + 120 + 42 = 762 \text{ (add the partial products)}$$

This leads to **expanded short multiplication**:

$$127 \times 6 = 762$$

$$\begin{array}{r} 127 \\ \times 6 \\ \hline 42 \quad (6 \times 7) \\ + 120 \quad (6 \times 20) \\ \hline 600 \quad (6 \times 100) \\ \hline 762 \end{array}$$

This will lead into **short multiplication (formal method)**:

$$\begin{array}{r} 127 \\ \times 6 \\ \hline 762 \\ \hline \end{array}$$

Use the language of place value to ensure understanding.

Ensure that the digits 'carried over' are written under the line in the correct column.

**NB** If, at any time, children are making significant errors, return to the previous stage in calculation.