

Multiplication - Year Six

- **Multiply multi-digit numbers (including decimals) up to 4 digits by a two-digit whole numbers**

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

Continue to practise and develop the **formal short multiplication** method and **formal long multiplication** method with larger numbers and decimals throughout Y6. Return to an expanded forms of calculation initially, if necessary (see Y5 guidance).

The **grid method** (decimal number multiplied by a two-digit number):

$$53.2 \times 24 = 1276.8$$

| | | | | |
|----|------|----|-----|--------|
| x | 50 | 3 | 0.2 | |
| 20 | 1000 | 60 | 4 | 1064.0 |
| 4 | 200 | 12 | 0.8 | 212.8 |
| | | | | 1276.8 |

The **formal written method of long multiplication**:

$$\begin{array}{r} 53.2 \\ \times 24.0 \\ \hline 212.8 \\ 1064.0 \\ \hline 1276.8 \end{array}$$

(53.2 x 4)
(53.2 x 20)

It is an option to include .0 in this example, but not essential.

The prompts (in brackets) can be omitted if children no longer need them.

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

Our aim is that by the end of Y6 children use **mental methods (with jottings)** when appropriate, but for calculations that they cannot do in their heads, they use an efficient **formal written method** accurately and with confidence.