

# Multiplication

Children may need to refer 'back' to previous years' recording at any time, particularly when decimals or larger numbers are introduced.

Children to use practical apparatus, number lines and hundred squares for support

Year Group: 5

## Signs and Symbols

- Know by heart all the multiplication facts to 10 x 10

Working rapidly using known facts:

$70 \times 6 = \square$        $11 \times \square = 88$        $\square \times 9 = 0.36$

$80 \times 9 = \square$        $6 \times \square = 48$        $\square \times 7 = 0.49$

$\triangle \times \triangle = 21$

$72 \times 6 = \square$        $180 \times \square = 540$        $\square \times 9 = 189$

$(14 \times \square) + 8 = 50$        $46 \times 28 = \square$

## Pencil and Paper Procedures

Grid Method (TU x TU) to support progression to long then short multiplication

72 x 38

x	70	2
30	2100	60
8	560	16

$$\begin{array}{r} 2160 \\ + 576 \\ \hline 2736 \\ 1 \end{array}$$

Grid Method (HTU x U)

346 x 7

x	300	40	6
7	2100	280	42

$$\begin{array}{r} 2100 \\ + 280 \\ \hline 42 \\ \hline 2422 \\ 1 \end{array}$$

and

$$\begin{array}{r} 276 \\ \times 3 \\ \hline 600 \quad (3 \times 200) \\ 210 \quad (3 \times 70) \\ \underline{18} \quad (3 \times 6) \\ \hline 828 \end{array}$$

$$\begin{array}{r} 26 \\ \times 12 \\ \hline 12 \quad (2 \times 6) \\ 40 \quad (2 \times 20) \\ 60 \quad (10 \times 6) \\ \hline 200 \quad (20 \times 10) \\ \hline 312 \\ 1 \end{array}$$

progressing to

$$\begin{array}{r} 276 \\ \times 3 \\ \hline 828 \\ 21 \end{array}$$

to be achieved by all children

## Other Jottings

As Year 4 but with larger numbers

### Explaining (Verbally and in Writing)

- $49 \times 30$        $50 \times 30 = 1500$ , subtract 30 is 1470.
- $15 \times 12$        $This is 15 \times 4 \times 3 = 60 \times 3 = 180.$
- $400 \times 80$        $This is the same as 4000 \times 8 = 32000$