

# Multiplication

Children's recordings are the expectations for the end of Year 4  
Children to use practical apparatus, number lines and hundred squares for support

Year Group: 4

## Signs and Symbols

Know all multiplication facts to 10 x 10

$3 \times 7 = 21$

$8 \times 15 = 15 \times \triangle$

$90 \times 6 = \square$

$8 \times \square = 560$

$\square \times 90 = 720$

$\triangle \times 7 = 21$

$4 \times \square + 8 = 24$

$\square \times \triangle = 21$

Extend to

$121 = 60 \times \square + 1$

$22 = 5 \times \square + 2$

## Pencil and Paper Procedures

Grid Method (TU x TU)

$72 \times 38$

x	70	2
30	2100	60
8	560	16

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

Grid Method (HTU x U)

$346 \times 7$

x	300	40	6
7	2100	280	42

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

or

$$\begin{array}{r} 276 \\ \times 3 \\ \hline 600 \text{ (3x200)} \\ 210 \text{ (3x70)} \\ 18 \text{ (3x6)} \\ \hline 828 \end{array}$$

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

progressing to

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

## Other Jottings

Partitioning

$15 \times 3 = 45$

$13 \times 11 = 143$

$15 \times 3 = (10 \times 3) + (5 \times 3) = 45$

$13 \times 11 = (13 \times 10) + 13$

$13 \times 9 = (13 \times 10) - 13$

$10 \times 3 = 30$

$$\begin{array}{r} 5 \times 3 = 15 \\ \hline 45 \end{array}$$

Factorising

$14 \times 20 = 14 \times 10 \times 2$

$= 140 \times 2$

$= 280$

## Explaining (Verbally)

- $24 \times 2$

$24 \times 2 \text{ is } 24 + 24 = 20 + 20 + 4 + 4 = 40 + 8 = 48$

- $15 \times 3$

*15 x 3 is 3 lots of 10 and 3 lots of 5 which is 30 + 15 = 45.*