

CARLTON JUNIOR AND INFANT SCHOOL CALCULATION POLICY - MULTIPLICATION GUIDELINES

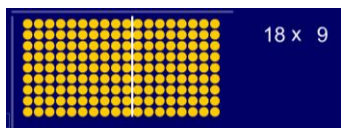
Year Four

x = signs and missing numbers

Continue using a range of equations as in Year 2 but with appropriate numbers

Partition

Continue to use arrays:



$18 \times 9 = 162$

$18 \times 9 = (10 \times 9) + (8 \times 9) = 162$

OR

Use the grid method of multiplication (as below)

Pencil and paper procedures

Grid method

23 x 7 is approximately 20 x 10 = 200

x	20	3	
7	140	21	= 161

Year Five

Partition

$47 \times 6 = 282$

$47 \times 6 = (40 \times 6) + (7 \times 6) = 282$

OR

Use the grid method of multiplication (as below)

Pencil and paper procedures

Grid method

72 x 38 is approximately 70 x 40 = 2800

x	70	2
30	2100	60
8	560	16

$2100 + 60 = 2160$

$560 + 16 = 576$

$$\begin{array}{r} 2160 \\ 560 + \\ \hline 2736 \end{array}$$

Expanded Column Multiplication

Children should describe what they do by referring to the actual values of the digits in the columns. For example, the first step in 38×7 is 'thirty multiplied by seven', not 'three times seven', although the relationship 3×7 should be stressed.

30 + 8	
$\begin{array}{r} x \\ \hline 7 \\ 56 \\ \hline 210 \\ \hline 266 \end{array}$	(8 x 7 = 56) (30 x 7 = 210)

38
$\begin{array}{r} x \\ \hline 7 \\ 56 \\ \hline 210 \\ \hline 266 \end{array}$

Year Six

Partition

$87 \times 6 = 522$

$87 \times 6 = (80 \times 6) + (7 \times 6) = 522$

OR

Use the grid method of multiplication (as below)

Pencil and paper procedures

Grid method

372 x 24 is approximately 400 x 20 = 8000

Extend to decimals with up to two decimal places.

Short Column Multiplication

The recording is reduced further, with carry digits recorded below the line.

$$\begin{array}{r} 38 \\ x \quad 7 \\ \hline 266 \\ 5 \end{array}$$

Children who are already secure with multiplication for TU x U and TU x TU should have little difficulty in using the same method for HTU x TU or applying decimals.

$$\begin{array}{r} 286 \\ x \quad 29 \\ \hline 2574 \quad (9 \times 286 = 2574) \\ 5720 \quad (20 \times 286 = 5720) \\ \hline 8294 \\ 1 \end{array}$$

