



Multiplication Written Calculation Progression

St Paul's CE VC Junior School



Language to be used:

All

lots of, groups, times, altogether
double, count on, repeat, multiply.

Lower Key Stage Two

multiplication, product, multiple.

Upper Key Stage Two

square, product, factor.

Year Three

- Multiply single digit numbers by a two-digit number.
- Build on partitioning to develop the grid method.

Grid Method

$17 \times 3 =$

X	10	7	
3	30	21	=51

Year Four

- Use the grid method to multiply a three-digit number by a one-digit number.

Grid Method

$256 \times 3 =$

X	200	50	6	
3	600	150	18	=768

- Use a vertical ladder to multiply 3-digits by 1-digit.

Ladder

$$\begin{array}{r} 253 \\ \times 6 \\ \hline 1200 \\ 300 \\ 18 \\ \hline 1518 \end{array}$$

Year Five

- Multiply two-digit by two-digit numbers using the grid method.

$46 \times 18 =$

X	40	6	
10	400	60	460
3	320	48	368
			828

- Short multiplication for multiplying by a single digit.
- Long multiplication for 2,3 or 4 digit number by a teen number.

Short Multiplication

$387 \times 6 =$

$$\begin{array}{r} 387 \\ \times 6 \\ \hline 54 \\ 2322 \end{array}$$

Long Multiplication

$346 \times 13 =$

$$\begin{array}{r} 346 \\ \times 13 \\ \hline 1038 \\ 3460 \\ \hline 4498 \end{array}$$

Year Six

- Continue short multiplication for multiplying by a single digit number.

Short Multiplication

$387 \times 6 =$

$$\begin{array}{r} 387 \\ \times 6 \\ \hline 54 \\ 2322 \end{array}$$

- Use long multiplication for a 2,3 or 4 digit number by a two-digit number.

Long Multiplication

$346 \times 13 =$

$$\begin{array}{r} 346 \\ \times 13 \\ \hline 1038 \\ 3460 \\ \hline 4498 \end{array}$$