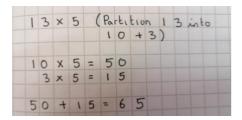
Multiplication - Stage Three

Recall and use multiplication facts for the 3, 4 and 8 multiplication tables (continue to practise the 2, 5 and 10 multiplication tables)

Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to a formal written method.

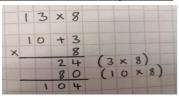
Partitioning Method



To support children's understanding of the **partitioning method**, teacher could <u>demonstrate</u> by using an empty number line

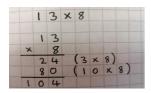
However, children are not expected to record in this way unless it supports their progression.

Expanded Short Multiplication

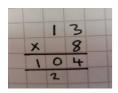


Use the language of place value to ensure understanding. Include an addition symbol when adding partial products. Encourage children to use **multiplication facts** to support this process

Expanded short multiplication (refined)



Formal short multiplication



Ensure that the digit 'carried over' is written under the line in the correct column.

Use the language of place value to ensure understanding.

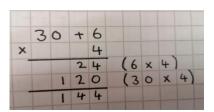
If, at any time, children are making significant errors, return to the previous stage in calculation.

Multiplication Stage Four

Recall multiplication facts for multiplication tables up to 12 × 12

Multiply two-digit and three-digit numbers by a one-digit number using formal written layout

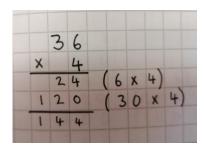
Expanded Short Multiplication (two-digit number by a one-digit number):



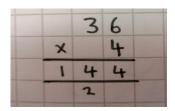
Include an additional symbol when adding partial products.

Use multiplication facts to support – in particular with multiples of 10 (e.g. x 20, 40).

Expanded Short Multiplication (Refined)



Short Multiplication (formal method) of a two-digit number multiplied by a one-digit number



Use the language of place value to ensure understanding.

Ensure that the digit 'carried over' is written **under the line in the correct column and then added not multiplied.**Continue to practise the formal method of short multiplication of a two-digit number by a one -digit number throughout. If children are confident, continue to develop short multiplication with three- digit numbers multiplied by a one-digit number.

Expanded Long Multiplication

Short Multiplication (Formal Method):

	١	2	7
X			6
	7	6	2
	1	4	

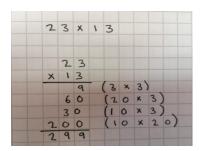
Use the language of place value to ensure understanding.

Ensure that the digits 'carried over' are written under the line in the correct column and then added, not multiplied If, at any time, children are making significant errors, return to the previous stage in calculation.

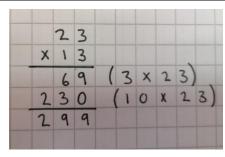
Multiplication - Stage Five

Multiply numbers up to 4 digits by a one- or two-digit number using a **formal written method**, including **long multiplication** for two-digit numbers. Ensure that children are confident with the methods outlined in the previous year's guidance before moving on. Build on the work covered in stage four with the formal method of short multiplication (two-digit number multiplied by a one-digit number).

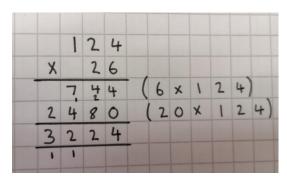
Expanded Long Multiplication



Compact Long Multiplication (Formal method)



When children are confident with long multiplication extend with three-digit numbers multiplied by a two-digit number, returning to the grid method first, if necessary:



Multiplication - Stage Six

Multiply multi-digit numbers (including decimals) up to 4 digits by a two-digit whole numbers/
Ensure that children are confident with the methods outlined in the previous stage'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 Stage six. Return to an expanded forms of calculation initially, if necessary (see stage five guidance).