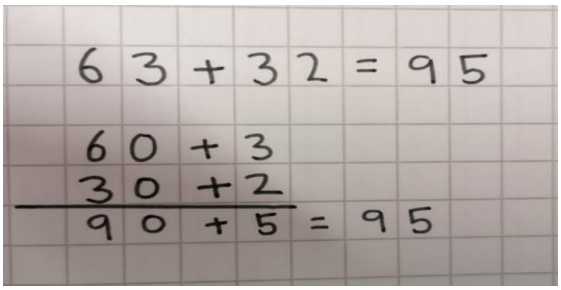
Addition – Stage Three

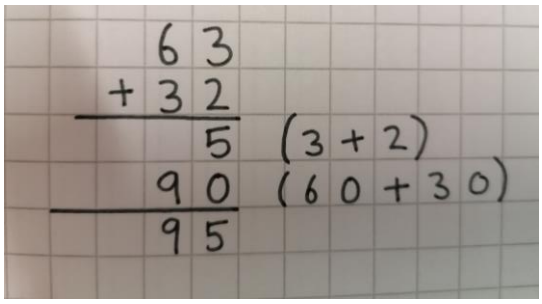
Add numbers with up to three digits, using formal written method of column addition

Expanded Written Method

Introduce the **expanded written method** with the calculation presented both horizontally and vertically (in columns).
Initially use calculations where it has not been necessary to bridge across the tens or hundreds:

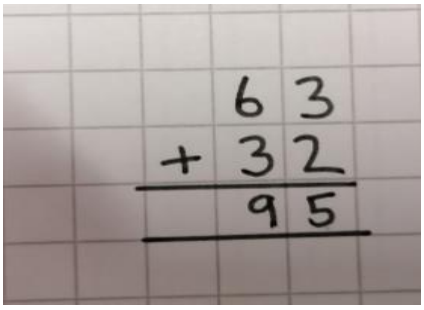


'Partition the numbers into tens and ones. Add the tens together and then add the one together. 'Recombine to give the answer.'
Then…



Add the least significant digits (ones) together first and then the tens in preparation for the formal written method.
This will lead into the formal written method

Formal Written Method

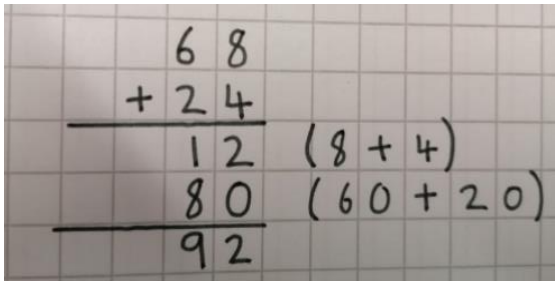


Use the language of place value to ensure understanding: **'Three add two equals five'.** Write five in the one's column. 60 add 30 equals 90. Write 9 (90) in the ten's column.
Mental methods could be more appropriate for numbers of this size, but use two-digit numbers when introducing the column method.

Expanded written method bridging across tens

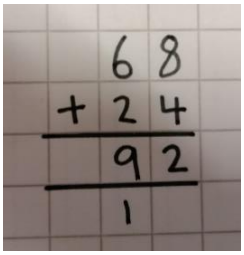
'Partition the numbers into tens and ones. Add the tens together and then add the ones together. 'Recombine to give the answer.'

Then,



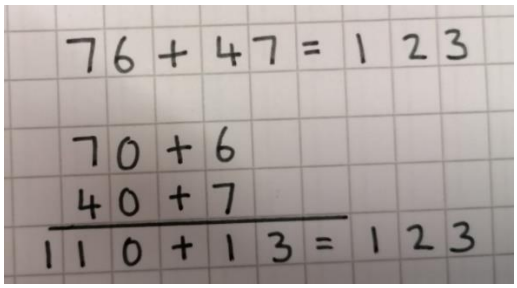
Add the least significant digits (ones) together first and then the tens in preparation for the formal written method.

Formal written method, where it is necessary to 'carry' tens



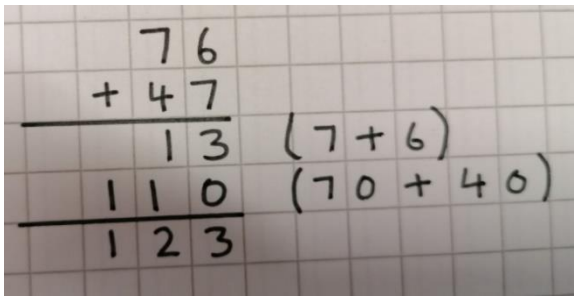
Use the language of place value to ensure understanding: 'Eight add four equals 12' Write two in the ones column and 'carry' 10 across into the ten's column. 60 add 20 and the ten that we 'carried' equals 90. Write 9 (90) in the ten's column. 92 is the answer.
The digit that has been 'carried' should be recorded under the line in the correct column.

Expanded written method bridging across tens and hundreds



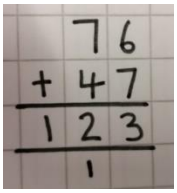
'Partition the numbers into tens and ones. Add the tens together and then add the ones together. Recombine to give the answer.'

Then…..

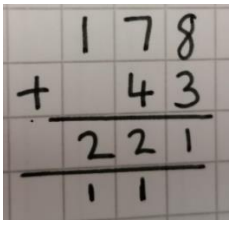


Add the least significant digits (ones) together first and then the tens in preparation for the formal written method.

Formal written method, where it is necessary to 'carry' across the columns and bridge 100:



Use the language of place value to ensure understanding: **'Seven add six equals 13'** Write three in the ones column and 'carry' 10 across into the tens column and write 1 (10) under the answer line. 40 add 70 and the ten that we 'carried' equals 120. Write 2 (20) in the tens column and 'carry' 100 across into the hundred's column.
The digits that have been 'carried' should be recorded under the line in the correct column.
If children are confident, further develop with the addition of a three- digit number and a two -digit number:

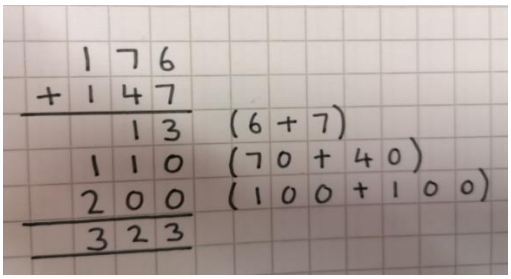


If, at any time, children are making significant errors, return to the previous stage in calculation.

Addition – Stage Four

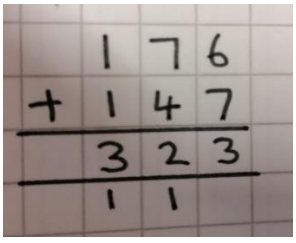
Add numbers with up to 4 digits using the formal written method of column addition where appropriate

Ensure that children are confident with the methods outlined in the previous stage's guidance before moving on.
Revisit the expanded method first, if necessary:



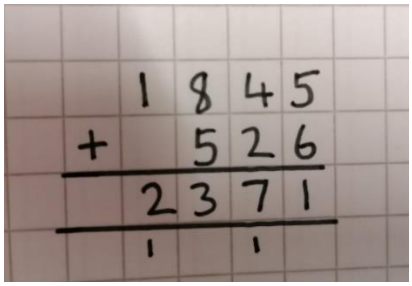
This will lead into..

Formal written method



Use the language of place value to ensure understanding: **'Seven add six equals 13.'** Write three in the ones column and 'carry' 10 across into the tens column and write 1 (10) under the answer line. 40 add 70 and the ten that we carried equals 120. Write 2 in the ten's column (20) and 'carry' 100 across into the hundreds column and write 1 (100) under the answer line. 100 add 100 and the 100 that has been carried equals 300. Write 3 in the hundred's column (300).

The digits that have been 'carried' should be recorded under the line in the correct column.
If children are confident, introduce the addition of a four-digit number and a three-digit number:

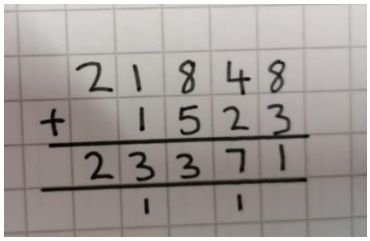


Continue to develop with addition of two four-digit numbers and with decimals (in the context of money or measures). If, at any time, children are making significant errors, return to the previous stage in calculation.

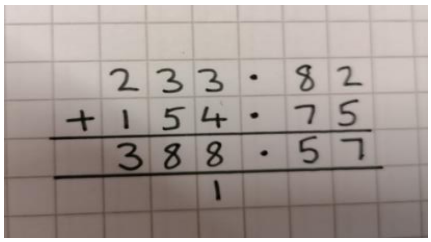
Addition – Stage Five

Add whole numbers with more than 4 digits, including using formal written method (column addition).

Ensure that children are confident with the methods outlined in the previous stage's guidance before moving on. Continue to develop the formal written method for addition with larger numbers (and decimal numbers) and with the addition of three or more numbers:



Continue to use the language of place value to ensure understanding. Ensure that the digits that have been 'carried' are recorded under the line in the correct column.
Use the **formal written method** for the addition of decimal numbers:



Ensure that the decimal points line up.
Continue to 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.

Addition - Stage Six

No objectives have been included in the programmes of study explicitly related to written methods for addition in stage six. However, there is an expectation that children will continue to practise and use the **formal written method for larger numbers and decimals** and use these methods when solving problems, when appropriate (see previous stage's guidance for methods).

Our aim is that by the end of stage six, children **use mental methods (with jottings)** when appropriate, but for calculations that they cannot do in their heads, they use an efficient **formal written method** accurately and with confidence.