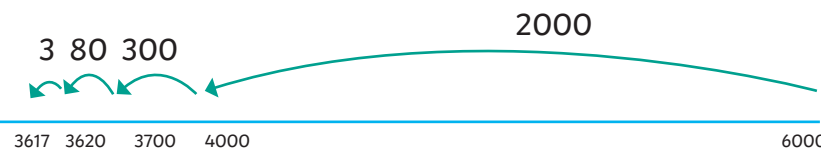


Key Vocabulary	Addition and Subtraction Methods	
Add	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <h3>Add 4-digit numbers</h3> <p><b>No exchange</b></p> <math display="block">\begin{array}{r} 5162 \\ +3427 \\ \hline 8589 \end{array}</math> <p>Starting with the ones, add each column in turn.</p> <p><b>One exchange</b></p> <math display="block">\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ 1 \end{array}</math> <p>Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens = 1 hundred + 5 tens Place 1 hundred under the hundreds answer and 5 tens in the answer.</p> <p><b>Multiple exchanges</b></p> <math display="block">\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ 111 \end{array}</math> <p>Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.</p> </div> <div style="width: 48%;"> <h3>Subtract 4-digit numbers</h3> <p><b>No exchange</b></p> <math display="block">\begin{array}{r} 5789 \\ - 3421 \\ \hline 2368 \end{array}</math> <p>Starting with the ones, subtract each column in turn.</p> <p><b>One exchange</b></p> <math display="block">\begin{array}{r} 61 \\ 5749 \\ - 3471 \\ \hline 2278 \end{array}</math> <p>Starting with the ones, subtract each column in turn. When subtracting 4 tens - 7 tens, exchange 1 hundred to make: 14 tens - 7 tens = 7 tens</p> <p><b>Multiple exchanges</b></p> <math display="block">\begin{array}{r} 6131 \\ 5742 \\ - 3476 \\ \hline 2266 \end{array}</math> <p>Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.</p> </div> </div>	
Total		
Plus		
Sum		
More		
Altogether		
Difference		
Subtract		
Less		
Minus		
Take away		
Mentally, Orally		
Column Addition		
Column Subtraction		
Exchange		
Estimate		
Inverse operation		
Solve problems	<b>Efficient subtraction</b>	
Number facts	<p>Calculate <math>6000 - 3617 = 2383</math></p>	

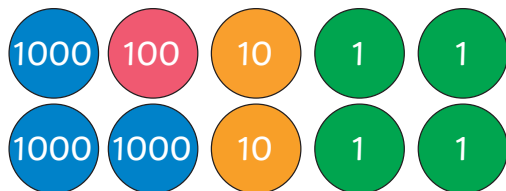


# Addition and Subtraction

# Knowledge Organiser

## Add and Subtract 1s, 10s, 100s, 1000s

Here is the number 3124



Add 2 thousands = 5124

Add 5 hundreds = 5624

Subtract 2 tens = 5604

Add 5 ones = 5609

Here is the number 6708

Thousands	Hundreds	Tens	Ones
6	7	0	8

Add 3 thousands = 9708

Subtract 4 hundreds = 9308

Add 5 tens = 9358

Subtract 7 ones = 9351

**Crossing ones, tens or hundreds**

5392 + 4 tens = 5432      crossing tens

5126 - 600 = 4526      crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.



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## Round to Estimate

$$1635 + 386 = 2021$$

Round to the nearest ten

$$1640 + 390 = 2030$$

Round to the nearest hundred

$$1600 + 400 = 2000$$

Both give a reasonable estimate, but rounding the nearest ten is more accurate.

$$9362 - 5729 = 3622$$

Round to the nearest hundred

$$9400 - 5700 = 3700$$

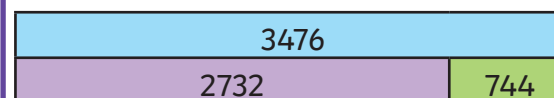
Round to the nearest thousand

$$9000 - 6000 = 3000$$

Rounding to the nearest hundred is much more accurate in this case.

## Checking Strategies

**Using Inverse**



$3476 - 744 = 2732$  can be checked using

$$2732 + 744 = 3476$$

This part whole shows the inverse calculations using these three numbers.



$1549 + 2688 = 4237$	$2688 + 1549 = 4237$
$4237 - 1549 = 2688$	$4237 - 2688 = 1549$

**Adding in a different order**

$$420 + 372 + 280 =$$

**Change to**

$$420 + 280 + 372 =$$

$$\text{As } 420 + 280 = 700$$

(because  $42 + 28 = 70$ )

$$420 + 280 + 372 = 700 + 372 = 1072$$