

Addition and Subtraction		Knowledge Organiser																										
Key Vocabulary	Addition	Subtraction																										
Add	<div>Place Value Grid: $3274 + 5601 = 8875$</div> <table><tr><td rowspan="2">Th</td><td><div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div></td></tr><tr><td><div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div></td></tr><tr><td rowspan="2">H</td><td><div><div>100</div><div>100</div><div>100</div><div>100</div></div></td></tr><tr><td><div><div>100</div><div>100</div><div>100</div><div>100</div></div></td></tr><tr><td rowspan="2">T</td><td><div><div>10</div><div>10</div><div>10</div><div>10</div></div></td></tr><tr><td><div><div>10</div><div>10</div><div>10</div></div></td></tr><tr><td>O</td><td><div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div></td></tr></table> <div>Column Method</div> <div>Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands, ten thousands and/or as required.</div> <div><div><div>45864</div><div>+23497</div><div><div>69361</div><div>111</div></div></div></div>	Th	<div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div>	<div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div>	H	<div><div>100</div><div>100</div><div>100</div><div>100</div></div>	<div><div>100</div><div>100</div><div>100</div><div>100</div></div>	T	<div><div>10</div><div>10</div><div>10</div><div>10</div></div>	<div><div>10</div><div>10</div><div>10</div></div>	O	<div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>	<div>Place Value Grid: $35\ 727 - 6313 = 29\ 414$</div> <table><tr><td>TTh</td><td><div><div>10 000</div><div>10 000</div><div><div>10 000</div><div></div></div></div></td><td>2 ten thousands left</td></tr><tr><td>Th</td><td><div><div>1000</div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div><div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div></td><td>5 thousands – 6 thousands cannot be done. Exchange ten thousand for ten thousands becoming 15 thousands – 6 thousands = 9 thousands</td></tr><tr><td>H</td><td><div><div>100</div><div>100</div><div><div>100</div><div></div></div><div>100</div></div><div><div>100</div><div>100</div><div><div>100</div><div></div></div></div></td><td>7 hundreds – 3 hundreds = 4 hundreds</td></tr><tr><td>T</td><td><div><div>10</div><div><div>10</div><div></div></div></div></td><td>2 tens – 1 ten = 1 ten</td></tr><tr><td>O</td><td><div><div>1</div><div>1</div><div><div>1</div><div></div></div><div>1</div></div><div><div>1</div><div>1</div><div><div>1</div><div></div></div></div></td><td>7 ones – 3 ones = 4 ones</td></tr></table> <div>Column Method</div> <div>Starting with the ones, subtract each column in turn. Exchange tens, hundreds, thousands and/or ten thousands as required.</div> <div><div><div>35727</div><div>- 6313</div><div><div>29414</div></div></div></div>	TTh	<div><div>10 000</div><div>10 000</div><div><div>10 000</div><div></div></div></div>	2 ten thousands left	Th	<div><div>1000</div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div> <div><div>1000</div><div>1000</div><div>1000</div><div>1000</div></div>	5 thousands – 6 thousands cannot be done. Exchange ten thousand for ten thousands becoming 15 thousands – 6 thousands = 9 thousands	H	<div><div>100</div><div>100</div><div><div>100</div><div></div></div><div>100</div></div> <div><div>100</div><div>100</div><div><div>100</div><div></div></div></div>	7 hundreds – 3 hundreds = 4 hundreds	T	<div><div>10</div><div><div>10</div><div></div></div></div>	2 tens – 1 ten = 1 ten	O	<div><div>1</div><div>1</div><div><div>1</div><div></div></div><div>1</div></div> <div><div>1</div><div>1</div><div><div>1</div><div></div></div></div>	7 ones – 3 ones = 4 ones
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Plus																												
Sum																												
More																												
Altogether																												
Difference																												
Subtract																												
Less																												
Minus																												
Take away																												
Column addition																												
Column subtraction																												
Estimate																												
Inverse operation																												
Number facts																												
Place value																												
Complex																												
Year 5																												

Addition and Subtraction

Knowledge Organiser

Estimate and Approximate

Rounding to Estimate

$$41\ 635 + 7386 = 49\ 021$$

Round to ten:

$$41\ 630 + 7380 = 49\ 010$$

$$41\ 630 + 7390 = 49\ 020$$

$$41\ 640 + 7390 = 49\ 030$$

Rounding is not as accurate when both numbers are rounded up. A better estimate comes from "rounding" one down and one up.

Estimating on a Number Line



The arrow is about $\frac{3}{4}$ of the way across the line so it is 40 000.

Year 5



Inverse Operations

Use the inverse to check:

53 476

32 732

20 744

To check $53\ 476 - 32\ 732 = 20\ 744$
use $32\ 732 + 20\ 744 = 53\ 476$

Start with a number, subtract 409 and double. I end with 6264. To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132. $3132 + 409 = 3541$. The starting number was 3541.

Multistep Problems

Using a Bar Model

The sum of two numbers is 25 567.

The difference is 1875.



Subtract 1875 from 25 567 = 23 692.

Halve 23 692 to find smaller number = 11 846.

Add 1875 to find larger number = 13 721.

£20			£20 is used to buy 2 books costing £3.75 and £8.49.
£3.75	£8.49	?	

£12.24	£7.76	How much change is given?
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$$£3.75 + £8.49 = £12.24$$

$$£20.00 - £12.24 = £7.76$$