



Addition and Subtraction Knowledge Organiser				
Key Vocabulary	Addition	Subtraction		
Add	Place Value Grid: 3274 + 5601 = 8875	Place Value Grid: 35 727 - 6313 = 29 414		
Total				
Make	Th 1000 1000 1000	TTh	10 000 10 000	2 ten thousands left
Plus	1000 1000 1000			5 thousands – 6
Sum				thousands cannot
More	100 100 100	Th	1000 1000 1000 1000	be done. Exchange ten thousand for ten
Altogether	H 100 100 100 100		1000 1000 1000	thousands becoming 15
Difference				thousands - 6 thousands = 9 thousands
Subtract	10 10 10			7 thousands
Less	T O O	н		7 hundreds – 3 hundreds
Minus			100 100	= 4 hundreds
Take away				
Column addition		Т		2 tens – 1 ten = 1 ten
Column subtraction	Column Method			
Estimate	Starting with the ones, add each column in turn. Regroup tens, hundreds, thousands,	О		7 ones – 3 ones = 4 ones
Inverse operation	ten thousands and/or as required.			
Number facts		Column	Method	
Place value	Starting with the ones, subtract each 35 $742$			
Complex	+23497	column in turn. Exchange tens, hundreds, - 3476		
Year 5	thousands and/or ten thousands as required. $32266$			quired. <u>32266</u>





#### Addition and Subtraction

# **Knowledge Organiser**

# **Estimate and Approximate**

#### **Rounding to Estimate**

Round to ten:

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

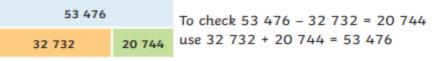


The arrow is about  $\frac{3}{4}$  of the way across the line so it is 40 000.



## **Inverse Operations**

Use the inverse to check:



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					
£3.75	£8.49	?			
£	£7.76				

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

How much change is given?