Castlefield School- Maths

Topic: Add and subtract within 10000	Year: Four	Theme: Addition and subtraction

Key concepts and questions

Why do you need to add from the 1s?

Always add from the 1s first because you may need to carry by exchanging. In this example, 10 ones are exchanged for 1 ten.
6+5 =11 ones=1 ten and 1 one.

	Th	H	T	O
	3	3	5	6
+	2	4	3	5
	5	7	9	1
			1	

Why do you need to subtract from the 1s?

When subtracting, make sure the whole is on top and the part underneath. Subtract from the ones first because you may need to borrow by exchanging. In this example, 1 ten is exchanged for 10 ones.

	Th	H	T	O
	5	6	3 4	1 3
−	4	3	1	6
	1	3	2	7

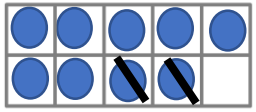
What is bridging?

Bridging is adding or subtracting across a multiple of 10, 100 or 1000, e.g. 137+6. 7+6 is > 10 so it will bridge the next multiple of 10. Use known number facts to help bridge.

Making connections

Addition and subtraction facts to 1000

Use addition and subtraction facts you know to 10, 100 and 1000 to help solve problems up to 10000.



This shows 9 – 7=2
90 – 70 = 20
900 – 700 = 200
9000 – 7000 =2000

Efficient methods

Use mental methods and known facts to choose the most efficient method for addition and subtraction. e.g. 135 + 7 could be done mentally but 1352 – 796 would be quicker and more accurate with column subtraction.

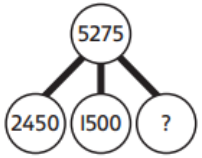
Key Vocabulary

addition	subtraction	partition	place value
ones	tens	hundreds	thousands
exchange	Exchange in addition e.g. 10 ones for 1 ten. This is sometimes called carrying. Exchange in subtraction e.g. 1 ten for 10 ones. This is sometimes called borrowing.		
bar model	represent the whole/parts		
commutative	addition can be done in any order		
column method	use place value to + and -		
efficient	the quickest method		
estimate	an approximate calculation		
difference	finding a part		
total	finding a whole		

Representations

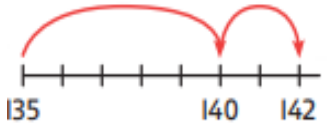
Part whole model

Shows how numbers relate to each other and can be split into parts.



Number lines

Help with counting on and back, and are useful for visualising bridging multiples of 10, 100 and 1000.



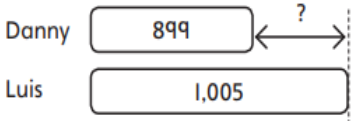
Column method

Use knowledge of place value to add and subtract numbers in columns.

	Th	H	T	O
	3	3	5	6
+	2	4	3	5
	5	7	9	1
			1	

Bar model

This one represents a finding the difference (subtraction) question 1005 - 899



This one represents an addition as it is finding the whole.