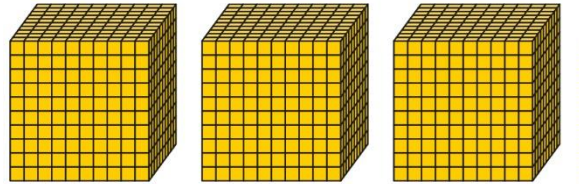

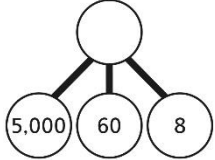
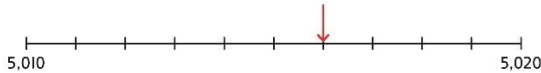


Year 4

	Concrete	Pictorial	Abstract												
<b>Year 4 Addition</b>															
<b>Understanding numbers to 10,000</b>	<p>Use place value equipment to understand the place value of 4-digit numbers.</p>  <p><i>4 thousands equal 4,000.</i> <i>1 thousand is 10 hundreds.</i></p>	<p>Represent numbers using place value counters once children understand the relationship between 1,000s and 100s.</p>  <p><math>2,000 + 500 + 40 + 2 = 2,542</math></p>	<p>Understand partitioning of 4-digit numbers, including numbers with digits of 0.</p>  <p><math>5,000 + 60 + 8 = 5,068</math></p> <p>Understand and read 4-digit numbers on a number line.</p> 												
<b>Choosing mental methods where appropriate</b>	<p>Use unitising and known facts to support mental calculations.</p> <p><i>Make 1,405 from place value equipment.</i></p> <p><i>Add 2,000.</i></p> <p><i>Now add the 1,000s.</i> <i>1 thousand + 2 thousands = 3 thousands</i></p> <p><math>1,405 + 2,000 = 3,405</math></p>	<p>Use unitising and known facts to support mental calculations.</p> <table border="1" data-bbox="952 1021 1512 1189"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>I can add the 100s mentally.</i></p> <p><math>200 + 300 = 500</math></p> <p>So, <math>4,256 + 300 = 4,556</math></p>	Th	H	T	O									<p>Use unitising and known facts to support mental calculations.</p> <p><math>4,256 + 300 = ?</math></p> <p><math>2 + 3 = 5</math>      <math>200 + 300 = 500</math></p> <p><math>4,256 + 300 = 4,556</math></p>
Th	H	T	O												

**Column addition with exchange**

Use place value equipment on a place value grid to organise thinking.

Ensure that children understand how the columns relate to place value and what to do if the numbers are not all 4-digit numbers.

Use equipment to show  $1,905 + 775$ .

Th	H	T	O
1000	900 900 900 900		50 50 50 50
	700 700	70 70 70 70 70 70	50 50 50 50

Why have only three columns been used for the second row? Why is the Thousands box empty?

Which columns will total 10 or more?

Use place value equipment to model required exchanges.

Th	H	T	O
1000	900 900 900 900	90 90 90 90 90 90	50 50 50 50
1000 1000 1000 1000	700 700	70 70 70	50 50 50 50

←

Th	H	T	O
1000	900 900 900 900	90 90 90 90 90 90	
1000 1000 1000 1000	700 700	70 70 70	50

←

Th	H	T	O
1000	900 900 900 900	90 90 90 90 90 90	
1000 1000 1000 1000	700 700	70 70 70	50

←

Th	H	T	O
1000	900 900 900 900	90 90 90 90 90 90	
1000 1000 1000 1000	700 700	70 70 70	50

←

Include examples that exchange in more than one column.

Use a column method to add, including exchanges.

Th	H	T	O
1	5	5	4
+ 4	2	3	7
<hr/>			
		9	1

Th	H	T	O
1	5	5	4
+ 4	2	3	7
<hr/>			
		9	1

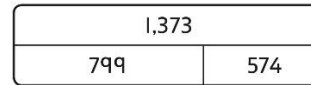
Th	H	T	O
1	5	5	4
+ 4	2	3	7
<hr/>			
7	9	1	

Th	H	T	O
1	5	5	4
+ 4	2	3	7
<hr/>			
5	7	9	1

Include examples that exchange in more than one column.

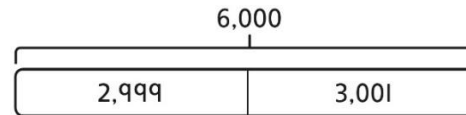
**Representing additions and checking strategies**

Bar models may be used to represent additions in problem contexts, and to justify mental methods where appropriate.



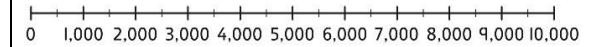
Th	H	T	O
7	9	9	
+	5	7	4
	1	3	7
	3	7	3

*I chose to work out  $574 + 800$ , then subtract 1.*



*This is equivalent to  $3,000 + 3,000$ .*

Use rounding and estimating on a number line to check the reasonableness of an addition.



$912 + 6,149 = ?$

*I used rounding to work out that the answer should be approximately  $1,000 + 6,000 = 7,000$ .*