

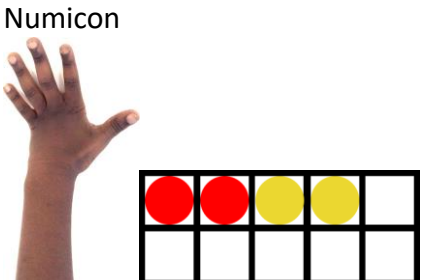
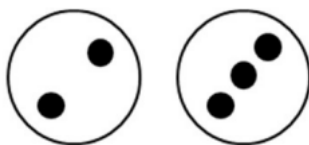








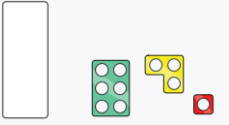
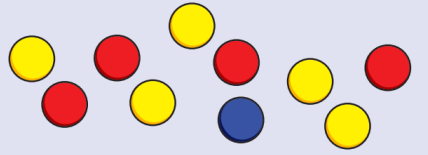
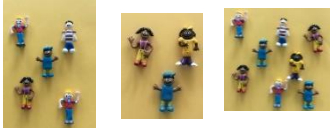
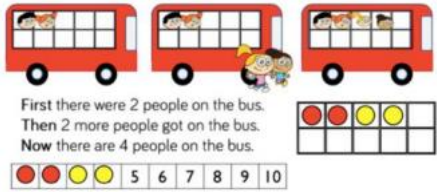
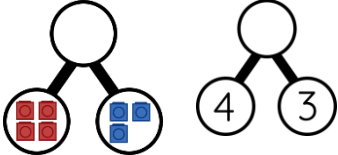
Calculation Policy

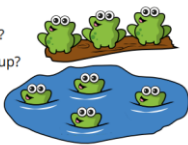
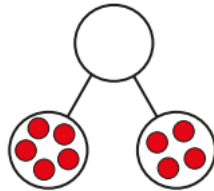
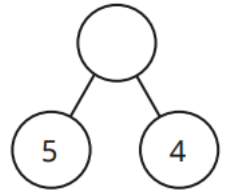
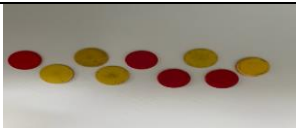
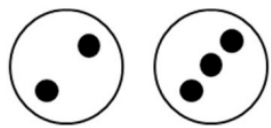



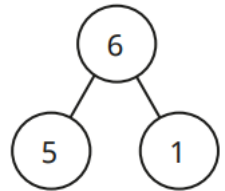
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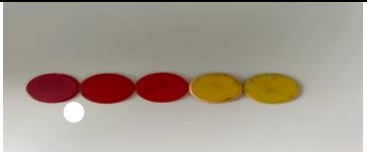
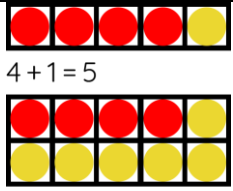
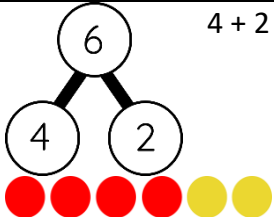

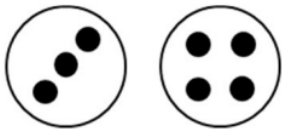
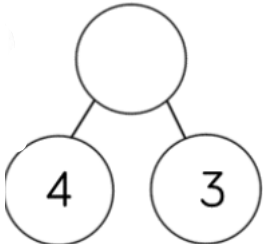


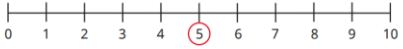
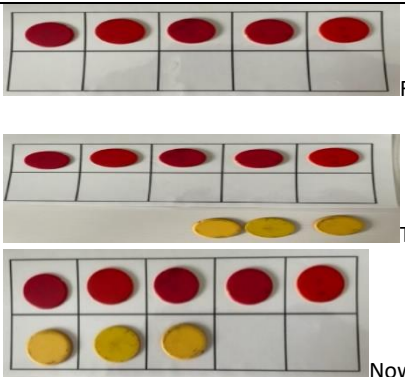


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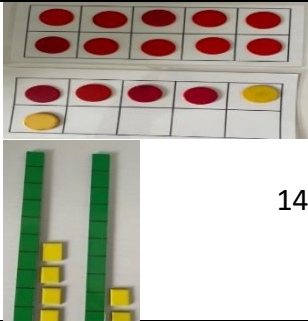
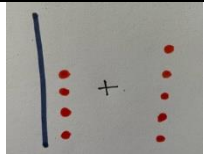
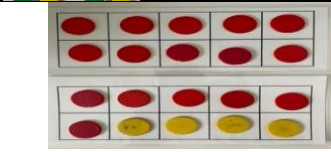
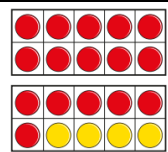

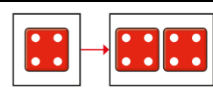

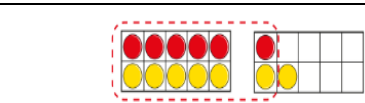
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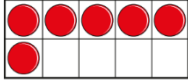

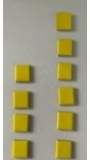
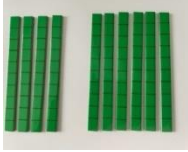


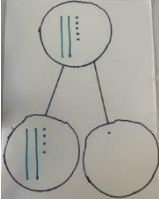
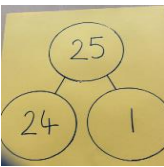
EYFS:			
Vocabulary:	first, then, now, add, plus, altogether, total, part, whole	Manipulatives & scaffolds:	Fingers Five frames Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model
Small step:	Concrete:	Pictorial:	Abstract:
Combining two groups	Children begin to combine 2 groups of objects to find how many there are altogether. Numicon 		How many ___ can you see? How many ___ can you see? How many can you see altogether?
1 more	 There are 7 altogether. 1 more than 6 is 7. 7 is 1 more than 6.	 There are 7 (starfish). 1 more than 7 is 8. 8 is 1 more than 7.	There are ___ There are ___ altogether. ___ is 1 more than ___ 1 more than ___ is ___


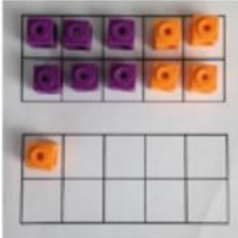

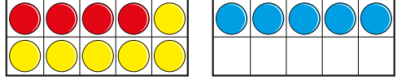
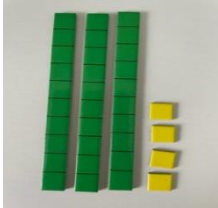

<p>Combine two groups</p>	 <p>There are 3 here and 4 there. There are 7 altogether. 3 and 4 make 7.</p>	 <p>There are 4 dots and 2 dots. There are 6 altogether. 4 and 2 make 6.</p>	<p>There are ___ here and ___ there. There are ___ altogether. ___ and ___ make ___</p>
<p>Bonds to 10 (2 parts)</p>	 <p>The whole is 10. 6 is a part and 4 is a part. 6 and 4 are a bond to 10. If 6 is a part then the other part must be 4.</p>	 <p>The whole is 10 If 6 is a part then the other part must be 4. 6 and 4 are a bond to 10.</p>	<p>The whole is ___ ___ is a part and ___ is a part ___ and ___ are a bond to 10 If ___ is a part, then the other part must be ___</p>
<p>Bonds to 10 (3 parts)</p>	 <p>Use 3 Numicon pieces to cover a 10 piece. The whole is 10. I can see that 10 is made up of 6 and 3 and 1.</p>	 <p>There are 10 counters, the whole is 10. I can see that 10 is made up of 5 and 4 and 1.</p>	<p>I can see that 10 is made up of ___ and ___ and ___.</p>
<p>Adding more</p>	<p>Combine two groups of objects using practical resources, role play, stories and songs:</p>  <p>$5 + 3 = 8$</p>	 <p>First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus.</p>	 <p>$4 + 3 =$</p>
<p>How many did</p>	<p>To follow March 24</p>		

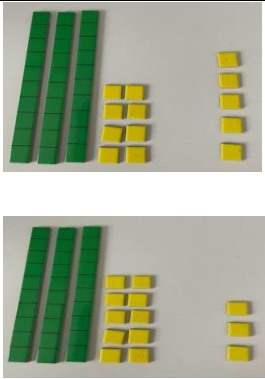
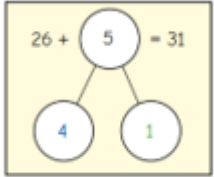
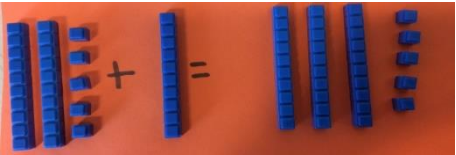
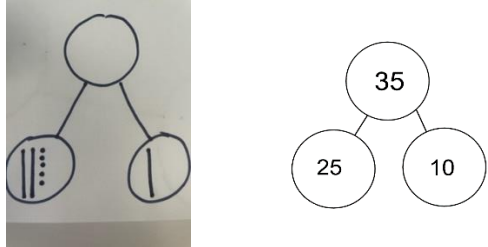
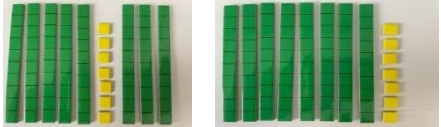
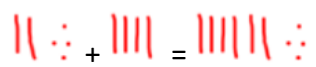
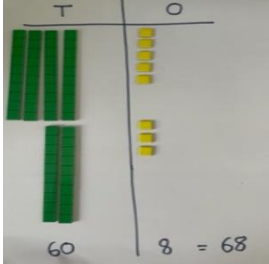
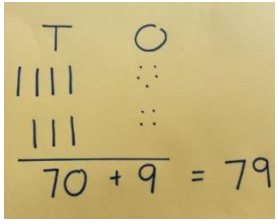
I add?			
Y1			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double	Manipulatives & scaffolds:	Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model Bar model
Small step:	Concrete:	Pictorial:	Abstract:
Understand part and whole relationships	<p>Here are some frogs.</p> <ul style="list-style-type: none"> ▶ Can you see two groups of frogs? ▶ How many frogs are in each group? ▶ Complete the sentences. <p>_____ is a part. _____ is a part. The whole is _____</p> 	 <p>___ is a part ___ is a part The whole is ___</p>	 <p>___ is a part ___ is a part The whole is ___</p>
Write number sentences	 <p>Here are some counters. Group the counters by colour.</p> <p>___ red counters plus ___ yellow counters is equal to ___ counters.</p>	 <p>$2 + 3 = 5$</p>	 <p>___ + ___ = ___</p>
Fact families – addition facts	 <p>First there were 3 children on the bus. Then 2 more children got on the bus. Now there are 5 children on the bus.</p>	 <p>___ + ___ = 7 7 = ___ + ___ ___ + ___ = 7 7 = ___ + ___</p>	 <p>$5 + 1 = 6$ $1 + 5 = 6$ $6 = 5 + 1$ $6 = 1 + 5$</p>

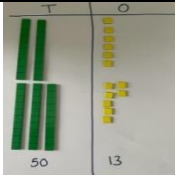
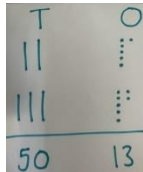
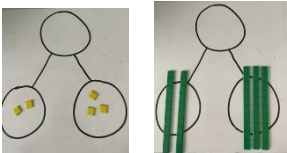
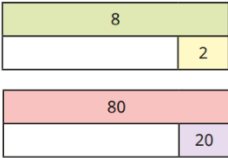
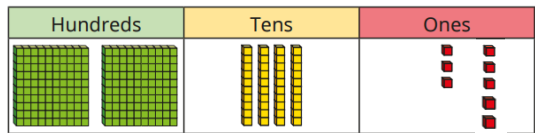
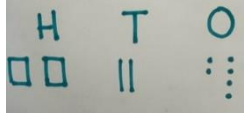
<p>Number bonds within 10</p>	 <p>$3 + 2 = 5$</p>	 <p>$4 + 1 = 5$</p> <p>$4 + 6 = 10$</p>	 <p>$4 + 2 = 6$</p>
<p>Add together</p>	 <p>$4 + 3 = 7$</p>	 <p>$3 + 4 = 7$</p>	 <p>$4 + 3 = 7$</p>
<p>Add more</p>	 <p>Put 2 counters in a tens frame. Now add 8 more counters. How many counters are there altogether?</p>	<p>$4 + 3 =$</p> 	 <p>$5 + \underline{\quad} = \underline{\quad}$</p>
<p>Add by counting on within 20</p>	 <p>First Then Now</p> <p>First there were 5 counters Then I added 3 Now there are 8 counters</p>	<p>Ann has 13 marbles. She gets 5 more marbles. How many marbles does Ann have now?</p> 	 <p>$9 + 6 = \underline{\quad}$</p>

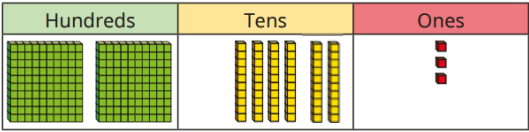
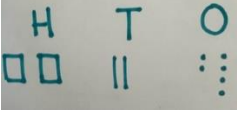
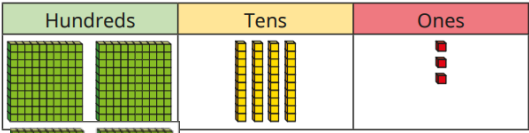
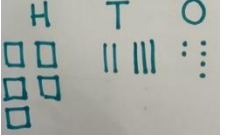
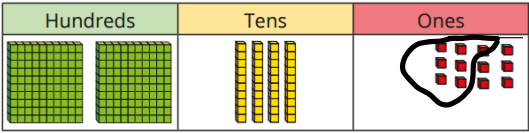
<p>Adding ones using number bonds</p>	 <p>14 + 2 =</p>	 <p>14 + 2 =</p>	<p>12 + 4 =</p>
<p>Find and make number bonds to 20</p>	 <p>16 + 4 = 20</p>	 <p>4 + 16 = 20</p>	<p>20 = ___ + ___ 20 = ___ + ___</p>
<p>Doubles</p>	 <p>Double 7 is ___</p>	 <p>Double 4 is ___</p>	<p>Double ___ is ___</p>
<p>Near doubles</p>	 <p>6 + 7 = 6 + 6 + 1 = Double 6 + 1 =</p>	 <p>6 + 7 = double _____ plus _____</p>	<p>Use doubles to work out the near doubles:</p> <p>4 + 5 = 6 + 7 = 8 + 7 =</p>
<p>Y2</p>			
<p>Vocabulary:</p>	<p>add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, commutative</p>	<p>Manipulatives & scaffolds:</p>	<p>Ten frames Double sided counters Numicon Cubes Base 10/Dienes</p>

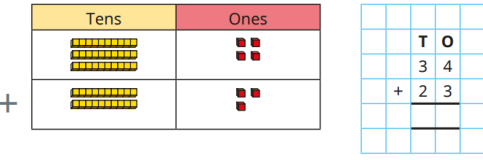
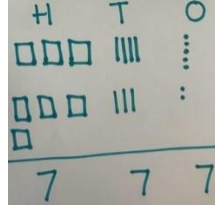
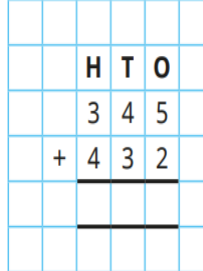
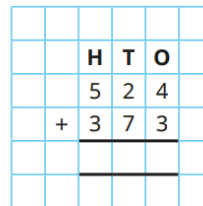
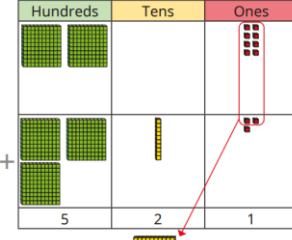
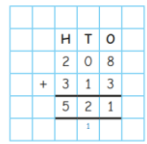
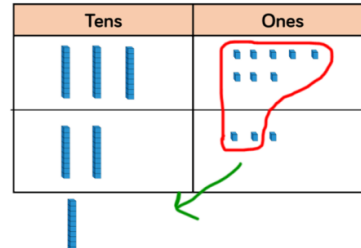
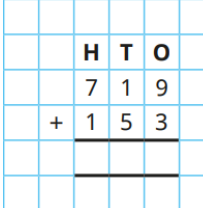
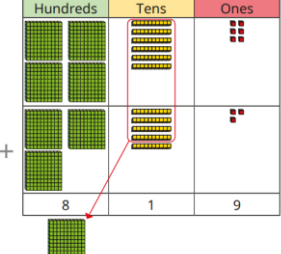
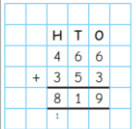
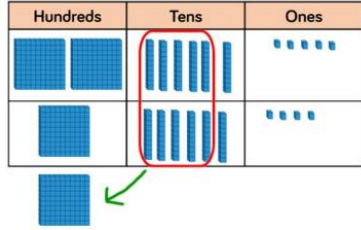
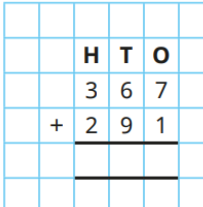
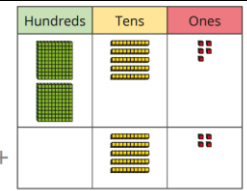
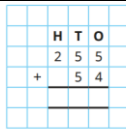
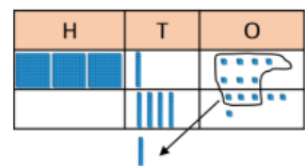
			Part-whole model Bar model Number line Place value charts
Small step:	Concrete:	Pictorial:	Abstract:
Bonds to 10	 $_ + _ = 10$	 $5 + _ = 10$	$_ + _ = 10$ $10 = _ + _$
Fact families – addition bonds within 20	 $_ + _ = _$ $_ + _ = _$ $_ = _ + _$ $_ = _ + _$	As above	$_ + _ = _$ $_ + _ = _$ $_ = _ + _$ $_ = _ + _$
Bonds to 100 (tens)	 $4 + 6 = 10$  $40 + 60 = 100$	 $3 + 4 = 7$  $30 + 40 = 70$	$_ + _ = 100$ $100 = _ + _$
Add ones		 	$46 + 1 =$ $46 + 2 =$ $46 + 3 =$

	<p>$24 + 1 = 25$</p> 		
Add by making 10	 <p>$6 + 5 = 10 + 1$ $= 11$</p>	Pictorial tens frame	<p>$7 + 4 = 11$</p> <p><i>If I have seven, how many more do I need to make ten?</i></p> <p><i>How many more do I need to add?</i></p>
Add three 1-digit numbers	 <p>$7 + 2 + 3 =$</p>	 <p>$4 + 6 + 6 =$</p>	<p>$7 + 5 + 3 =$</p> <p>$7 + 5 + 3 = 15$</p> <p><i>(Note: A bracket under 7 and 5 points to 10, and a bracket under 10 and 3 points to 15.)</i></p>
Add to the next 10	 <p>The Base 10 shows 34 How many tens are there in 34? What is the multiple of 10 after 34? How many ones are there in 34? How many more ones do I need to add to get to the next multiple of 10?</p>	 <p>$67 + \underline{\quad} = 70$</p>	<p>$45 + \underline{\quad} = 50$ $81 + \underline{\quad} = 90$ $32 + \underline{\quad} = 40$</p>

<p>34 + <u> </u> = <u> </u></p> <p>Add across a ten</p>  <p>38 + 5 = 40 + 3</p>		<p>67 + 5 =</p>
<p>10 more</p>  <p>25 + 10 = 35</p>		<p>25 + 10 = 35 10 + 25 = 35 35 = 25 + 10 35 = 10 + 25</p>
<p>Add 10s</p>  <p>57 + 30 = 87</p>	 <p>24 + 40 = 64</p>	<p>23 + 10 54 + 40</p>
<p>Add two 2-digit numbers (not across a ten)</p>  <p>60 + 8 = 68</p>	<p>45 + 34 =</p> 	<p>52 + 14 23 + 31</p>

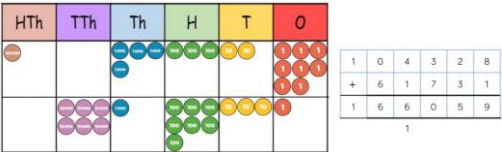
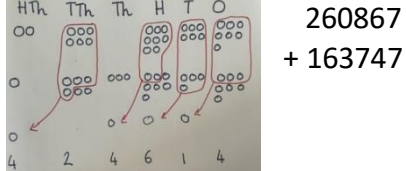

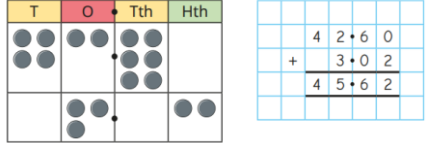
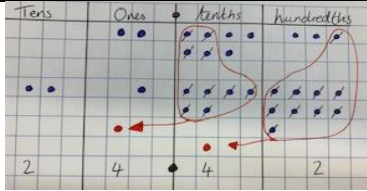
	 <p> $26 + 37 =$ $20 + 30 = 50$ $6 + 7 = 13$ $50 + 13 = 63$ </p>	 <p> $26 + 37 =$ $20 + 30 = 50$ $6 + 7 = 13$ $50 + 13 = 63$ </p>	$26 + 37$ $46 + 27 =$ $17 + 33 =$
Y3			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds	Manipulatives & scaffolds:	Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	Concrete:	Pictorial:	Abstract:
Apply number bonds	 <p> $2 + 3 = 5$ $20 + 30 = 50$ </p>	 <p> $_ + 2 = 8$ $_ + 20 = 80$ </p>	$2 + _ = 5$ $20 + _ = 50$
Add ones			$354 + 4$ $215 + 3$ $461 + 8$

	$243 + 5 =$ 	$222 + 4 =$ 	$546 + 30$ $743 + 50$ $229 + 60$
Add tens	$243 + 20 =$ 	$226 + 30 =$ 	$378 + 400$ $579 + 300$ $285 + 600$
Add hundreds	$243 + 200 =$ 	As above	$248 + 9$
Add 1s across a ten	$243 + 9 =$ $243 + 7 = 250 + 2 =$ 252	$256 + 300 =$	$695 + 80$ $476 + 60$
Add 10s across a hundred	As above	As above	

<p>Add two numbers (no exchange)</p>		 	
<p>Add two numbers (across a ten)</p>	 	 $\begin{array}{r} 38 \\ + 23 \\ \hline 61 \\ 1 \end{array}$	
<p>Add two numbers (across a hundred)</p>	 	 $\begin{array}{r} 265 \\ + 164 \\ \hline 429 \\ 1 \end{array}$	
<p>Add 2-digit and 3-digit numbers</p>	 	 $\begin{array}{r} 317 \\ + 46 \\ \hline 363 \\ 1 \end{array}$	<p>537 + 82 =</p>
<p>Y4</p>			
<p>Vocabulary:</p>	<p>add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes,</p>	<p>Manipulatives & scaffolds:</p>	<p>Ten frames Double sided counters</p>

	double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands		Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters
Small step:	Concrete:	Pictorial:	Abstract:
Add up to two 4-digit numbers – no exchange	<p>A concrete representation of adding 3256 and 2532. On the left, base ten blocks are used: 3 thousands (blue), 2 hundreds (green), 5 tens (yellow), and 6 ones (red) for 3256; and 2 thousands (blue), 5 hundreds (green), 3 tens (yellow), and 2 ones (red) for 2532. On the right, a ten frame shows the numbers stacked: 3 2 5 6 over 2 5 3 2, with a horizontal line under the second row.</p>	<p>A pictorial representation of the same addition using small circles to represent base ten blocks. The numbers are stacked and aligned by place value. The sum 2367 is written below the second row, and 4221 is written below the third row.</p>	<p>An abstract representation using a ten frame. The numbers are written in a grid: 3 2 5 6 over 2 5 3 2, with a horizontal line under the second row.</p>
Add two 4-digit numbers – one exchange	<p>A concrete representation of adding 2435 and 2435. Base ten blocks are used. A red arrow points from a ten's rod in the tens column to a hundred's rod in the hundreds column, indicating an exchange. A ten frame shows the numbers stacked: 2 4 3 5 over 2 4 3 5, with a horizontal line under the second row and a '1' written below the tens column.</p>	<p>A pictorial representation of the same addition using small circles. A red arrow points from a group of ten circles in the tens column to a group of ten circles in the hundreds column, indicating an exchange. The sum 5 8 8 2 is written below the second row.</p>	<p>An abstract representation using a ten frame. The numbers are written in a grid: 2 4 3 5 over 2 4 3 5, with a horizontal line under the second row and a '1' written below the tens column.</p>
Add two 4-digit numbers – more than one exchange	<p>A concrete representation of adding 2634 and 4517. Base ten blocks are used. Red arrows indicate multiple exchanges: from tens to hundreds, from hundreds to thousands, and from tens to hundreds. A ten frame shows the numbers stacked: 2 6 3 4 over 4 5 1 7, with a horizontal line under the second row and '1' written below the tens and hundreds columns.</p>	<p>A pictorial representation of the same addition using small circles. Red arrows indicate multiple exchanges. The sum 7 1 5 1 is written below the second row.</p>	<p>An abstract representation using a ten frame. The numbers are written in a grid: 2 6 3 4 over 4 5 1 7, with a horizontal line under the second row and '1' written below the tens and hundreds columns.</p>
Y5			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes,	Manipulatives & scaffolds:	Ten frames Double sided counters

	double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point		Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters																					
Small step:	Concrete:	Pictorial:	Abstract:																					
Add whole numbers with more than four digits			<table border="1"> <tr><td>1</td><td>0</td><td>4</td><td>3</td><td>2</td><td>8</td></tr> <tr><td>+</td><td>6</td><td>1</td><td>7</td><td>3</td><td>1</td></tr> <tr><td>1</td><td>6</td><td>6</td><td>0</td><td>5</td><td>9</td></tr> </table>	1	0	4	3	2	8	+	6	1	7	3	1	1	6	6	0	5	9			
1	0	4	3	2	8																			
+	6	1	7	3	1																			
1	6	6	0	5	9																			
Add decimals across one	Place value	Place value grids	$0.74 + 0.42$																					
Add decimals with the same number of decimal places		Place value	<table border="1"> <tr><td>3</td><td>.</td><td>6</td><td>5</td></tr> <tr><td>+</td><td>2</td><td>.</td><td>4</td><td>9</td></tr> <tr><td colspan="4"><hr/></td></tr> <tr><td>6</td><td>.</td><td>1</td><td>4</td></tr> <tr><td>1</td><td></td><td>1</td><td></td></tr> </table>	3	.	6	5	+	2	.	4	9	<hr/>				6	.	1	4	1		1	
3	.	6	5																					
+	2	.	4	9																				
<hr/>																								
6	.	1	4																					
1		1																						
Add decimals with a different number of decimal places																								

<p>Y6</p> <p>Vocabulary:</p>	<p>add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, exchange, regroup, hundreds, thousands, decimals, tenths, hundredths, thousandths, decimal point, integer</p>	<p>Manipulatives & scaffolds:</p>	<p>Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts Place value counters</p>
<p>Small step:</p>	<p>Concrete:</p>	<p>Pictorial:</p>	<p>Abstract:</p>
<p>Add integers</p>			
<p>Add decimals</p>		 <p>$1.73 + 21.69 =$</p>	<p>Insert zeros for place holders.</p> 