

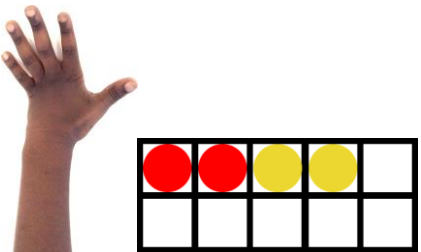
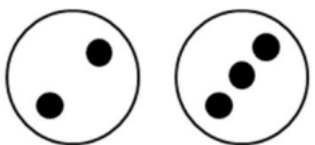
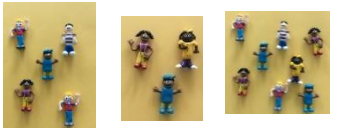
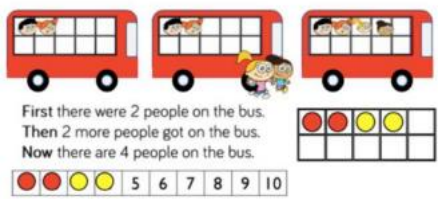
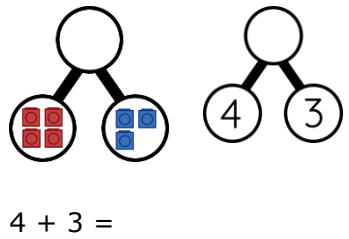



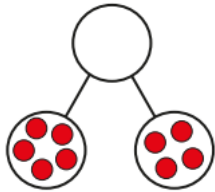
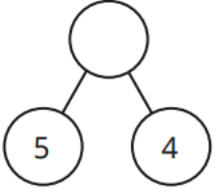

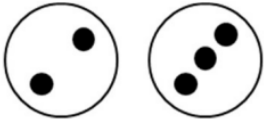
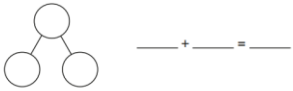
Calculation Policy



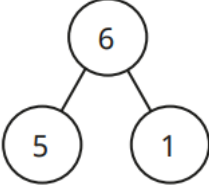


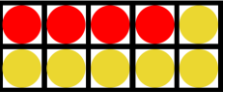
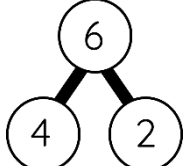


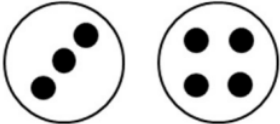
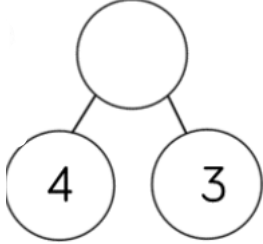
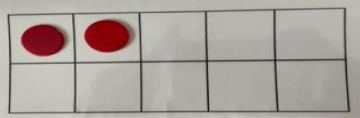

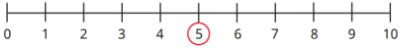




Addition



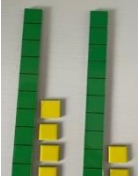
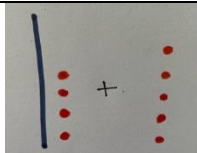
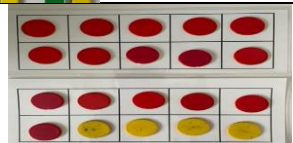
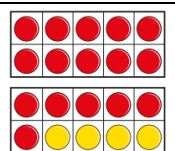

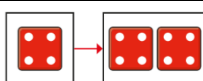

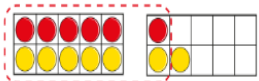
September 2023


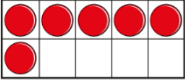
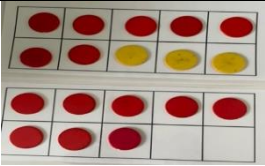
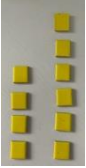
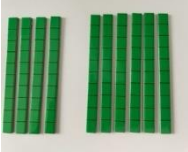
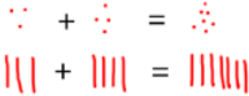
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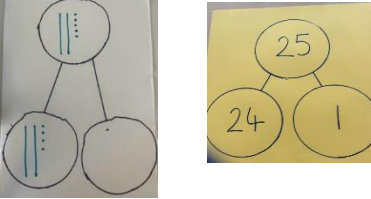
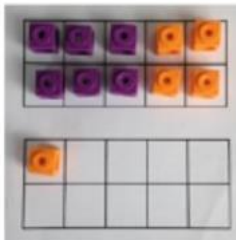
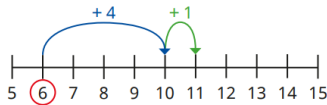

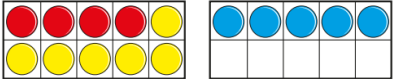
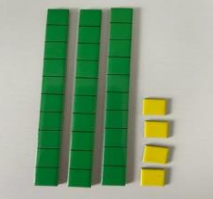

EYFS:			
Vocabulary :	first, then, now, add, plus, altogether, total, part, whole	Manipulatives & scaffolds:	Fingers Five frames Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model
Small step:	Concrete:	Pictorial:	Abstract:
Combining two groups	Children begin to combine 2 groups of objects to find how many there are altogether 		How many ___ can you see? How many ___ can you see? How many can you see altogether?
Adding more	Combine two groups of objects using practical resources, role play, stories and songs: 	 <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>

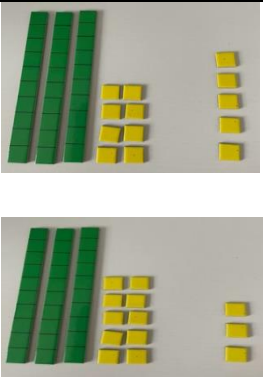
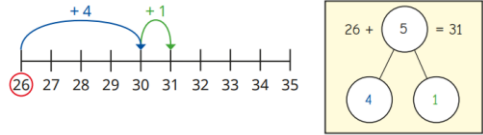
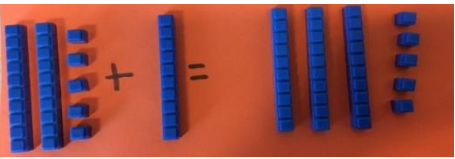
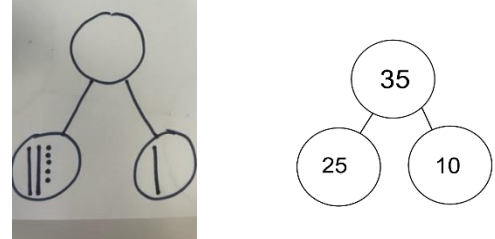
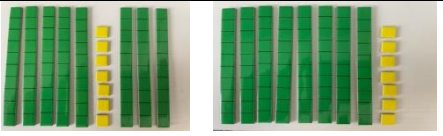
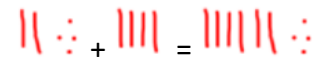
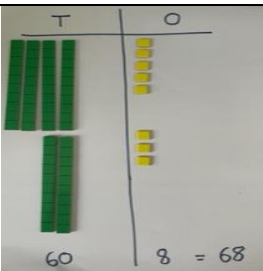
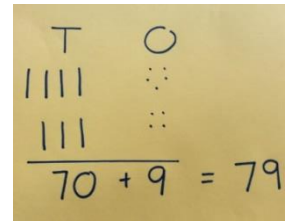
	$5 + 3 = 8$		
How many did I add?	To follow March 24		
Y1			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double	Manipulatives & scaffolds:	Ten frames Double sided counters Numicon Cubes Bead strings Part-whole model Bar model
Small step:	Concrete:	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. ___ red counters plus ___ yellow counters is equal to ___ counters.</p>	 <p>$2 + 3 = 5$</p>	 <p>___ + ___ = ___</p>

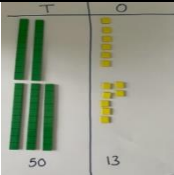
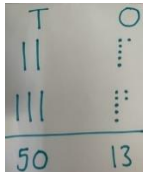
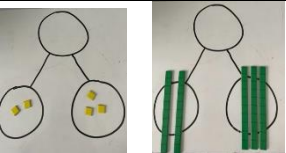
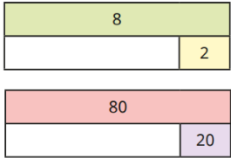
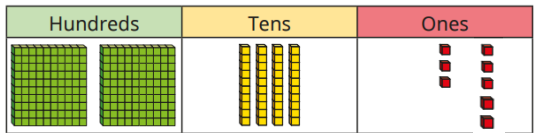
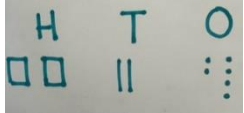
<p>Fact families – addition facts</p>	 <p>First there were 3 children on the bus. Then 2 more children got on the bus. Now there are 5 children on the bus.</p>	 <p>___ + ___ = 7 7 = ___ + ___ ___ + ___ = 7 7 = ___ + ___</p>	 <p>5 + 1 = 6 1 + 5 = 6 6 = 5 + 1 6 = 1 + 5</p>
<p>Number bonds within 10</p>	 <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 + ___ = ___</p>
<p>Add by counting on within 20</p>	 <p>First</p>  <p>Then</p>	<p>Ann has 13 marbles. She gets 5 more marbles. How many marbles does Ann have now?</p> 	 <p>9 + 6 = ___</p>

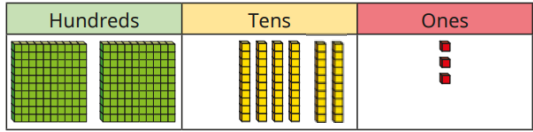
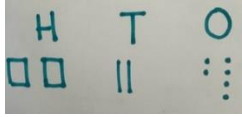
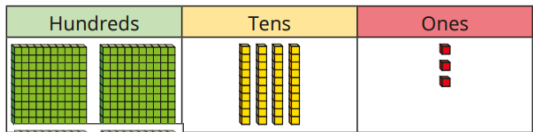
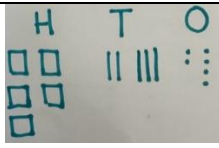

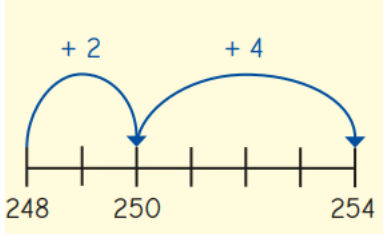
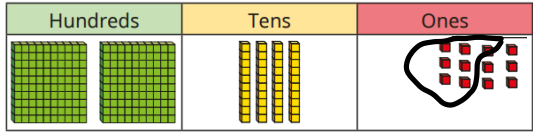
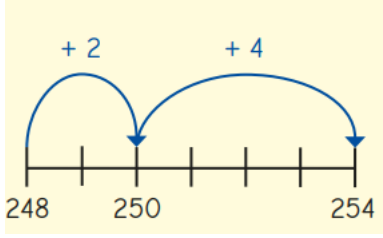
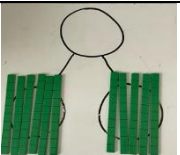
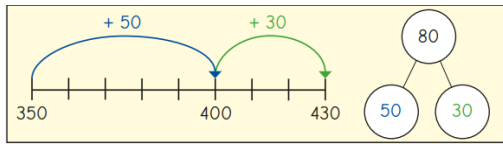
	 <p>Now</p> <p>First there were 5 counters Then I added 3 Now there are 8 counters</p>		
Adding ones using number bonds	  <p>$14 + 2 =$</p>	 <p>$14 + 2 =$</p>	$12 + 4 =$
Find and make number bonds to 20	 <p>$16 + 4 = 20$</p>	 <p>$4 + 16 = 20$</p>	$20 = _ + _$ $20 = _ + _$
Doubles	 <p>Double 7 is $_$</p>	 <p>Double 4 is $_$</p>	Double $_$ is $_$
Near doubles	 <p>$6 + 7 =$ $6 + 6 + 1 =$ Double 6 + 1 =</p>	 <p>$6 + 7 =$ double $_$ plus $_$</p>	Use doubles to work out the near doubles: $4 + 5 =$ $6 + 7 =$ $8 + 7 =$

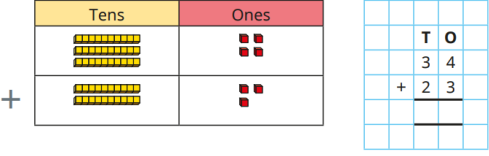
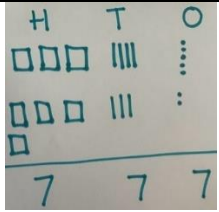
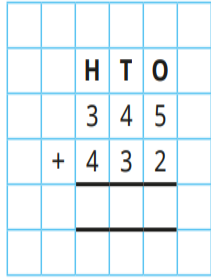
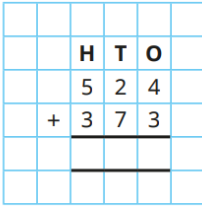
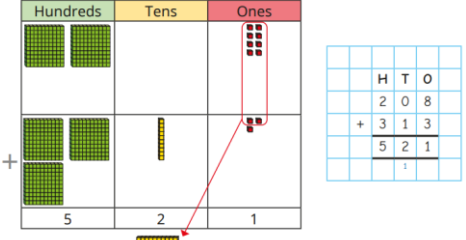
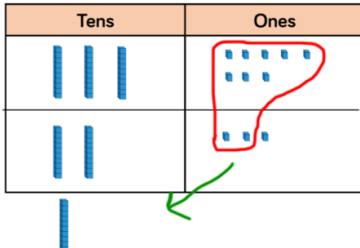
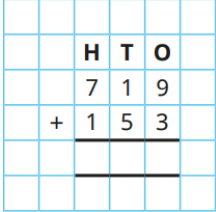
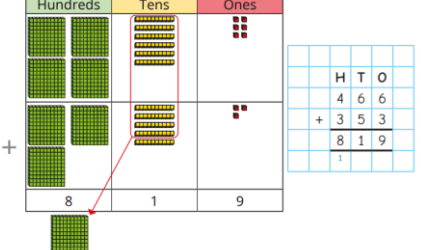
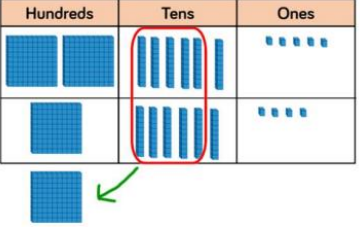
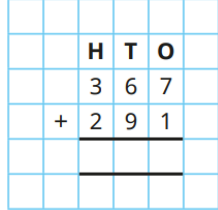
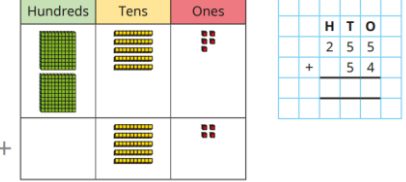
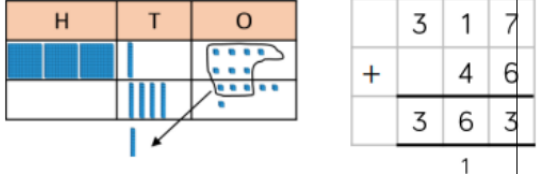
Y2			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, partition, bonds, commutative	Manipulatives & scaffolds:	Ten frames Double sided counters Numicon Cubes Base 10/Dienes Part-whole model Bar model Number line Place value charts
Small step:	Concrete:	Pictorial:	Abstract:
Bonds to 10	 $_ + _ = 10$	 $5 + _ = 10$	$_ + _ = 10$ $10 = _ + _$
Fact families – addition bonds within 20	 $_ + _ = _$ $_ + _ = _$ $_ = _ + _$ $_ = _ + _$		$_ + _ = _$ $_ + _ = _$ $_ = _ + _$ $_ = _ + _$
Bonds to 100 (tens)	 $4 + 6 = 10$  $40 + 60 = 100$	 $3 + 4 = 7$ $30 + 40 = 70$	$_ + _ = 100$ $100 = _ + _$

<p>Add ones</p>	 <p>$24 + 1 = 25$</p>		<p>$46 + 1 =$ $46 + 2 =$ $46 + 3 =$</p>
<p>Add by making 10</p>	 <p>$6 + 5 = 10 + 1$ $= 11$</p>	 <p>$6 + 5 = 10 + 1$ $= 11$</p>	<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>
<p>Add three 1-digit numbers</p>	 <p>$7 + 2 + 3 =$</p>	 <p>$4 + 6 + 6$ $=$</p>	<p>$7 + 5 + 3 =$</p> <p>$7 + 5 + 3 = 15$</p> <p>10</p>
<p>Add to the next 10</p>	 <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</p>	 <p>$67 + \underline{\quad} = 70$</p>	<p>$45 + \underline{\quad} = 50$ $81 + \underline{\quad} = 90$ $32 + \underline{\quad} = 40$</p>

	the next multiple of 10? $34 + \underline{\quad} = \underline{\quad}$		
Add across a ten	 $38 + 5 = 40 + 3$		$67 + 5 =$
10 more	 $25 + 10 = 35$		$25 + 10 = 35$ $10 + 25 = 35$ $35 = 25 + 10$ $35 = 10 + 25$
Add 10s	 $57 + 30 = 87$	 $24 + 40 = 64$	$23 + 10$ $54 + 40$
Add two 2-digit numbers (not across a ten)	 $60 + 8 = 68$	$45 + 34 =$ 	$52 + 14$ $23 + 31$

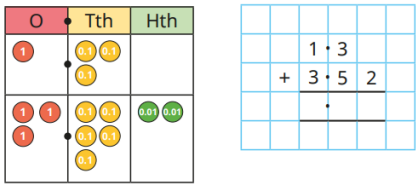
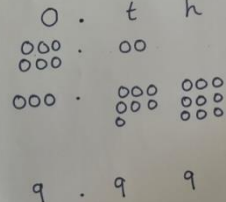
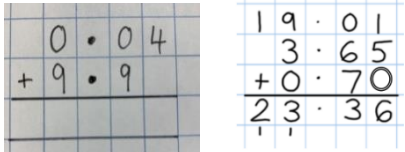
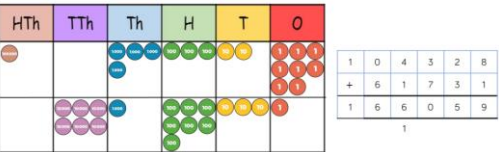
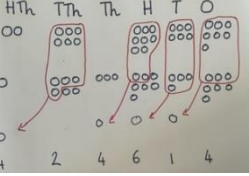
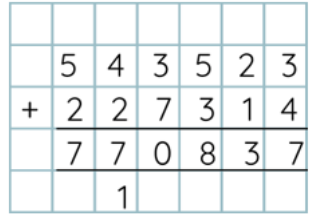
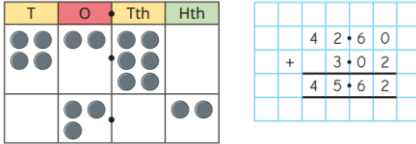
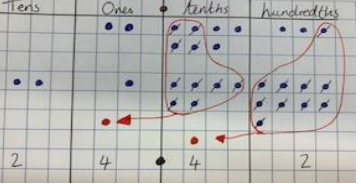
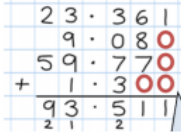
	 <p> $26 + 37 =$ $20 + 30 = 50$ $6 + 7 = 13$ $50 + 13 = 63$ </p>	 <p> $26 + 37 =$ $20 + 30 = 50$ $6 + 7 = 13$ $50 + 13 = 63$ </p>	<p> $26 + 37$ $46 + 27 =$ $17 + 33 =$ </p>
Y3			
Vocabulary:	add, plus, altogether, total, part, whole, 2-digit number, sum, addition, more, and, makes, double, ones, tens, 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>	<p> $2 + _ = 5$ $20 + _ = 50$ </p>
Add ones			<p> $354 + 4$ $215 + 3$ $461 + 8$ </p>

	$243 + 5 =$ 	$222 + 4 =$ 	$546 + 30$ $743 + 50$ $229 + 60$
Add tens	$243 + 20 =$ 	$226 + 30 =$ 	$378 + 400$ $579 + 300$ $285 + 600$
Add hundreds	$243 + 200 =$ 	$256 + 300 =$ 	$248 + 9$
Add 1s across a ten	$243 + 9 =$ $243 + 7 = 250 + 2 =$ 252 	$248 + 6 =$ $248 + 2 = 250 + 4 =$ 254 	$695 + 80$ $476 + 60$
Add 10s across a hundred	$60 + 50 =$ $60 + 40 = 100$ $100 + 10 = 110$ 	$350 + 80 =$ $350 + 50 = 400 + 30 = 430$ 	

<p>Add two numbers (no exchange)</p>		 	
<p>Add two numbers (across a ten)</p>			
<p>Add two numbers (across a hundred)</p>			
<p>Add 2-digit and 3-digit numbers</p>			<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 the addition 2356 + 2532. On the left, place value blocks are used: 2 thousands (blue), 3 hundreds (green), 5 tens (yellow), and 6 ones (red) for 2356; 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 2356 and 2532 added together, with a horizontal line drawn under the ones column.</p>	<p>A pictorial representation of the addition 2356 + 2532 using base 10 blocks. The blocks are arranged in columns labeled Th, H, T, O. The sum 2367 is written below the blocks, with a carry of 4 from the ones column to the tens column.</p>	<p>An abstract representation of the addition 2356 + 2532 using a place value chart. The chart has columns for Th, H, T, O. The numbers 2356 and 2532 are written in the chart, with a horizontal line drawn under the ones column.</p>
Add two 4-digit numbers – one exchange	<p>A concrete representation of the addition 2356 + 2435. On the left, place value blocks are used: 2 thousands (blue), 3 hundreds (green), 5 tens (yellow), and 6 ones (red) for 2356; and 2 thousands (blue), 4 hundreds (green), 3 tens (yellow), and 5 ones (red) for 2435. On the right, a ten frame shows the numbers 2356 and 2435 added together, with a horizontal line drawn under the ones column. A red arrow points from the 11 ones to the tens column.</p>	<p>A pictorial representation of the addition 2356 + 2435 using base 10 blocks. The blocks are arranged in columns labeled Th, H, T, O. The sum 5791 is written below the blocks, with a carry of 1 from the ones column to the tens column.</p>	<p>An abstract representation of the addition 2356 + 2435 using a place value chart. The chart has columns for Th, H, T, O. The numbers 2356 and 2435 are written in the chart, with a horizontal line drawn under the ones column. The sum 5791 is written below the line.</p>
Add two 4-digit numbers – more than one exchange	<p>A concrete representation of the addition 2634 + 4517. On the left, place value blocks are used: 2 thousands (blue), 6 hundreds (green), 3 tens (yellow), and 4 ones (red) for 2634; and 4 thousands (blue), 5 hundreds (green), 1 ten (yellow), and 7 ones (red) for 4517. On the right, a ten frame shows the numbers 2634 and 4517 added together, with a horizontal line drawn under the ones column. Red arrows point from the 11 ones to the tens column, and from the 13 tens to the hundreds column.</p>	<p>A pictorial representation of the addition 2634 + 4517 using base 10 blocks. The blocks are arranged in columns labeled Th, H, T, O. The sum 7151 is written below the blocks, with carries of 1 from the ones column to the tens column, and from the tens column to the hundreds column.</p>	<p>An abstract representation of the addition 2634 + 4517 using a place value chart. The chart has columns for Th, H, T, O. The numbers 2634 and 4517 are written in the chart, with a horizontal line drawn under the ones column. The sum 7151 is written below the line.</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> <tr><td></td><td></td><td></td><td></td><td>1</td><td></td></tr> </table>	1	0	4	3	2	8	+	6	1	7	3	1	1	6	6	0	5	9					1													
1	0	4	3	2	8																																		
+	6	1	7	3	1																																		
1	6	6	0	5	9																																		
				1																																			
Add decimals across one	<p>$0.7 + 0.5$</p>	<p>$0.45 + 0.67$</p>	<p>$0.74 + 0.42$</p>																																				
Add decimals with the same number of decimal places			<table border="1"> <tr><td></td><td>3</td><td>.</td><td>6</td><td>5</td><td></td></tr> <tr><td>+</td><td>2</td><td>.</td><td>4</td><td>9</td><td></td></tr> <tr><td colspan="5"><hr/></td><td></td></tr> <tr><td></td><td>6</td><td>.</td><td>1</td><td>4</td><td></td></tr> <tr><td colspan="5"><hr/></td><td></td></tr> <tr><td></td><td>1</td><td></td><td>1</td><td></td><td></td></tr> </table>		3	.	6	5		+	2	.	4	9		<hr/>							6	.	1	4		<hr/>							1		1		
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<p>Add decimals with a different number of decimal places</p>		 <p>6.2 + 3.79</p>	
<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>260867 + 163747</p>	
<p>Add decimals</p>		 <p>1.73 + 21.69 =</p>	<p>Insert zeros for place holders.</p> 

**LEARNING AND
FLOURISHING
TOGETHER**

PROUD TO
BE PART OF

PDET