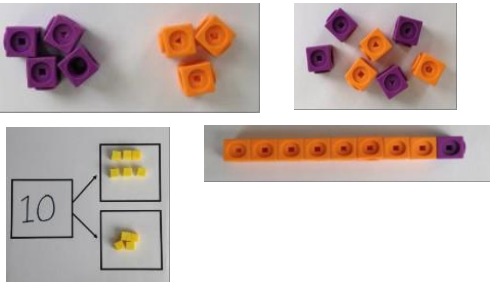
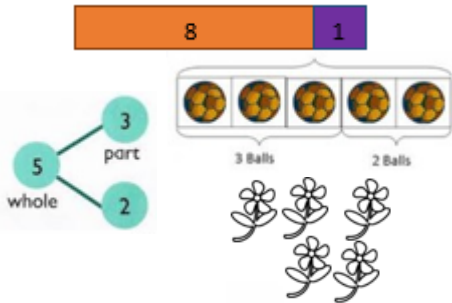
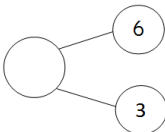
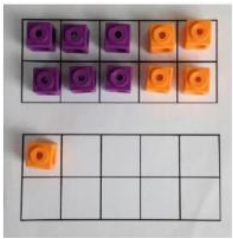
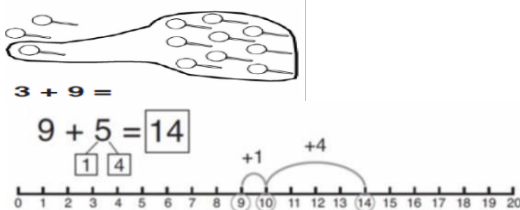

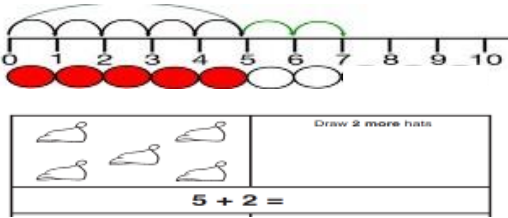


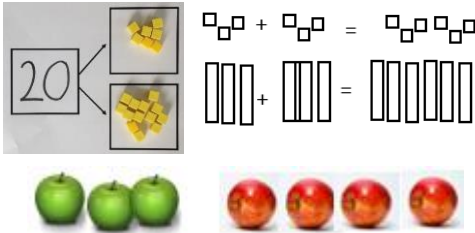
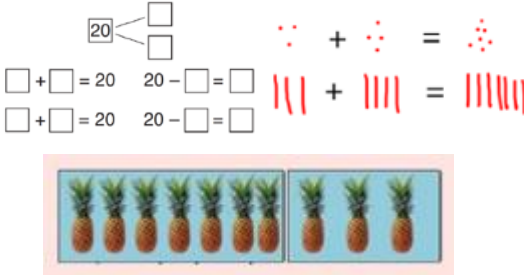
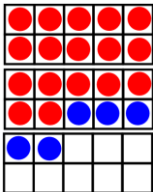
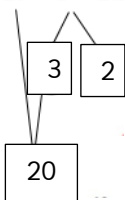
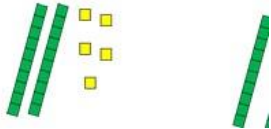



CPA Policy

Addition – Y1

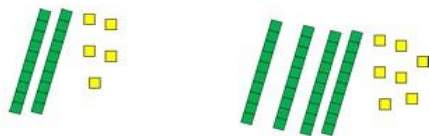
Objective and Strategy	Concrete	Pictorial	Abstract
Combining two parts to make a whole: part-whole model	Use part-part whole model. Use cubes to add two numbers together as a group or in a bar. 	Use pictures to add two numbers together as a group or in a bar 	Use the part-part whole diagram as shown below to move into the abstract.  $9 = 6 + 3$ $3 + 6 = 9$
Regrouping to make 10. This is an essential skill for column addition later.	Start with the bigger number and use the smaller number to make 10. - Use ten frames.  $6 + 5 = 11$	Use pictures or a number line. Regroup or partition the smaller number using the part-part whole model to make 10. 	$7 + 4 = ?$ <p>If I am at seven, how many more do I need to make 10 (add 3). How many more do I add on now (add the 1)?</p> <p>(partition the 4 to 'make 10')</p>
Represent & use number bonds and related subtraction facts within 20	Use cubes and other concrete objects (bead strings optional) <p>2 more than 5.</p> 		Emphasis should be on the language: <p><i>'2 more than 5 is 7.'</i></p> <p><i>'7 is 2 more than 5.'</i></p>

Addition – Y2

Objective and Strategy	Concrete	Pictorial	Abstract				
Adding multiples of ten	Model using dienes (bead strings optional)  $50 = 30 + 20$	Use representations for base ten.  $3 \text{ tens} + 5 \text{ tens} = \text{ ______ tens}$ $30 + 50 = \text{ ______}$	$20 + 30 = \text{ ______}$ $\text{ ______} = 50 + 20$ $40 + \text{ ______} = 60$				
Use known number facts Part-part whole, bar model and dienes	Children explore ways of making numbers within 20/100  $\square\square\square + \square\square\square = \square\square\square\square\square$ $\square\square\square + \square\square\square = \square\square\square\square\square$	 $\square + \square = 20$ $20 - \square = \square$ $\square + \square = 20$ $20 - \square = \square$	$\square + 1 = 16$ $16 - 1 = \square$ $1 + \square = 16$ $16 - \square = 1$ $3 + 4 = 7$ <i>leads to</i> <table border="1" data-bbox="1814 681 2105 766"><tr><td>23</td><td>25</td></tr><tr><td colspan="2">?</td></tr></table> $30 + 40 = 70$	23	25	?	
23	25						
?							
Add a two digit number and ones	 $17 + 5 = 22$ - Use ten frame to 'make ten' Children then explore the pattern. $17 + 5 = 22$ $27 + 5 = 32$	Use part-whole model to represent this: $17 + 5 = 22$ 	$17 + 5 = 22$ Explore related facts $17 + 5 = 22$ <table border="1" data-bbox="1863 957 2121 1053"><tr><td colspan="2">22</td></tr><tr><td>17</td><td>5</td></tr></table> $5 + 17 = 22$ $22 - 17 = 5$	22		17	5
22							
17	5						
Add a 2 digit number and tens	$25 + 10 = 35$ Explore that the ones digit does not change 	Draw the dienes and explore on a number square 	Explore patterns: $27 + 10 = 37$ $27 + 20 = 47$ $27 + \text{ ______} = 57$				

Add two 2-digit numbers

Model using dienes, place value counters and numicon



Model 'make 10' and 'same value swap' if ones bridge 10 (exchange).

Draw the dienes

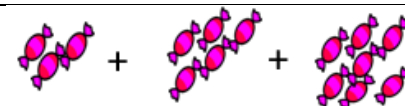


Make 10 and do a 'same value swap'
10 ones = 1 ten

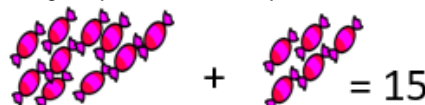
See calculation policy
Expanded column method using 2 digit numbers

Add three 1-digit numbers

Combine to make 10 first if possible, or bridge 10 then add third digit



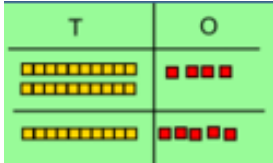
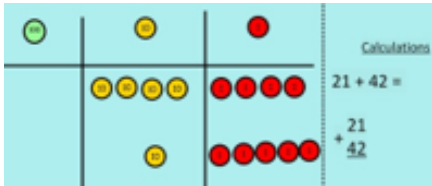
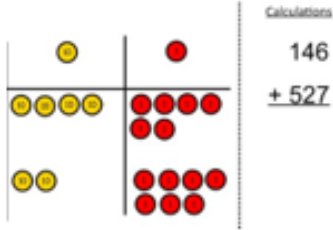
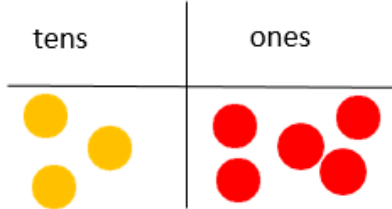
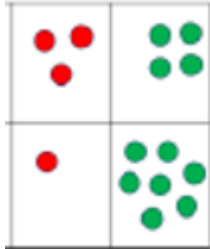
Regroup and draw representation.



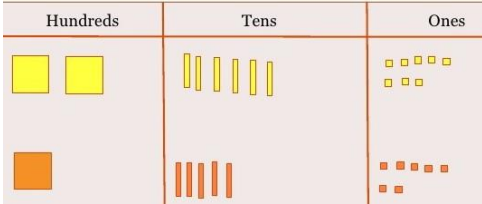
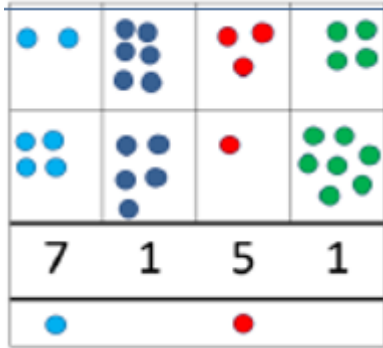
Combine the two numbers that make/ bridge ten then add on the third.

$$\begin{array}{r} 4 + 7 + 6 = 10 + 7 \\ \quad \quad \quad 10 \\ \quad \quad \quad = 17 \end{array}$$

Addition – Y3

Objective and Strategy	Concrete	Pictorial	Abstract
<p>Y3—add numbers with up to 3 digits</p> <p>Expanded column method</p>	<p>Model using Dienes or place value counters - Add together the ones first, then the tens.</p>   <p>Exchange ten ones for a ten. Model using PV counters.</p> 	<p>Children move to drawing the counters using a tens and one frame.</p>  <p>Children can draw a representation of the grid to further support their understanding, Adding the ones first.</p>  $\begin{array}{r} 1 \quad 1 \\ 4 \quad 0 \\ \hline 5 \quad 1 \end{array}$	<p>See calculation policy</p>

Addition – Y4

Objective and Strategy	Concrete	Pictorial	Abstract
<p>Y4—add numbers with up to 4 digits</p> <p>Column method</p>	<p>Children continue to use dienes or PV counters to add, exchanging ten ones for a ten and ten tens for a hundred and ten hundreds for a thousand.</p> 	<p>Draw representations using pv grid.</p> 	<p>See calculation policy</p>