



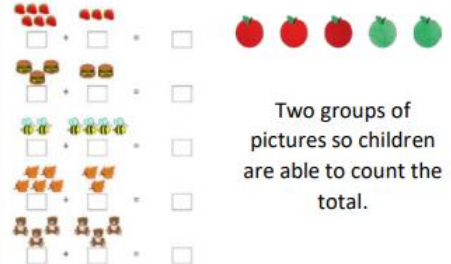
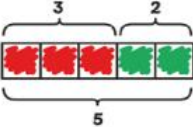
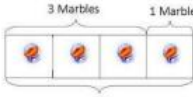
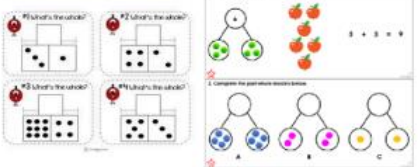
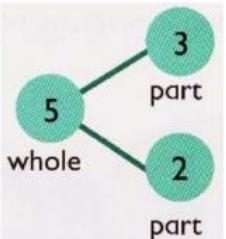
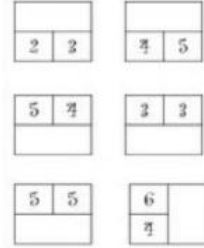
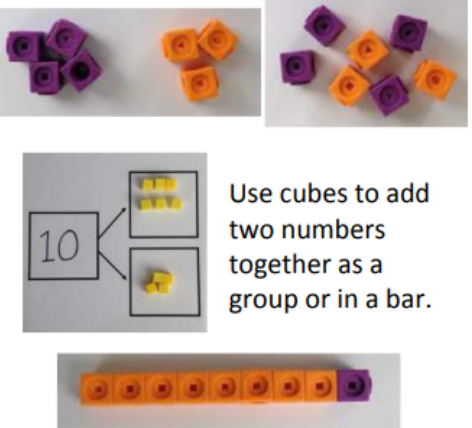
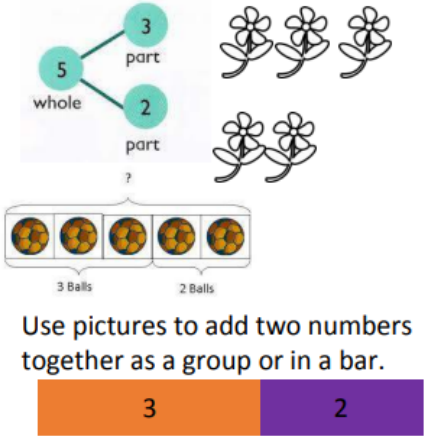
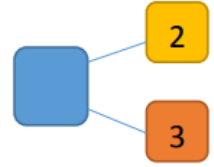
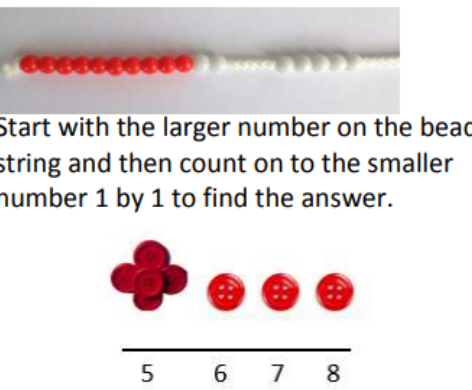



# Uphill Village Academy Calculation Guidance : Addition

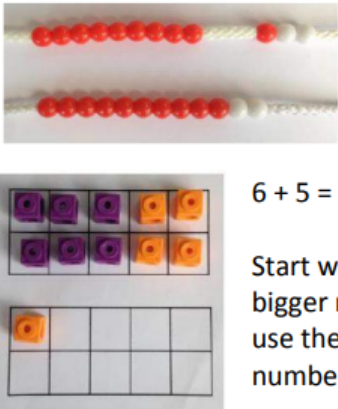
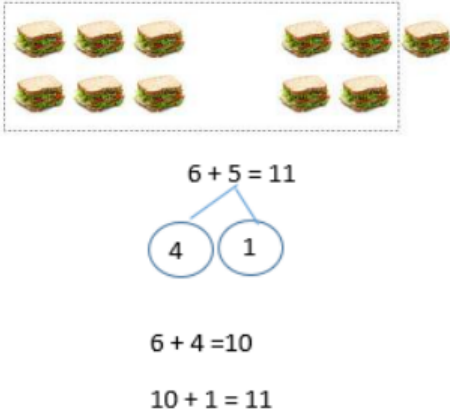

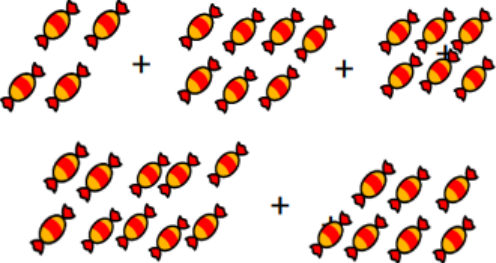
## EYFS

Objectives	Concrete	Pictorial	Abstract
<p>Knows that a group of things change in quantity when something is added.</p> <p>Find the total number of items in two groups by counting all of them.</p> <p>Says the number that is one more than a given number.</p> <p>Finds one more from a group of up to five objects, then ten objects.</p> <p>In practical activities and discussion, beginning to use the vocabulary involved in adding.</p> <p>Using quantities and objects, they add two single digit numbers and count on to find the answer.</p> <p>Solve problems including doubling.</p>	<p><b>Concrete</b></p>  <p>Use toys and general classroom resources for children to physically manipulate, group/regroup.</p>  <p>Use specific maths resources such as counters, snap cubes, Numicon etc.</p>  <p>Use visual supports such as ten frames, part part whole and addition mats, with the physical objects and resources that can be manipulated.</p> 	<p><b>Pictorial</b></p>  <p>Two groups of pictures so children are able to count the total.</p>  <p>Bar model using visuals, pictures/icons or colours.</p>  <p>Use visual supports such as ten frames, part part whole and addition mats with pictures/icons.</p> 	<p><b>Abstract</b></p> <p>A focus on symbols and numbers to form a calculation.</p> $5 + 2 = 7$   <p>No expectation for children to be able to record a number sentence/addition calculation.</p>

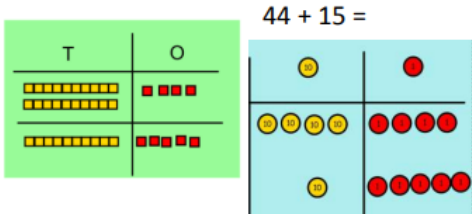
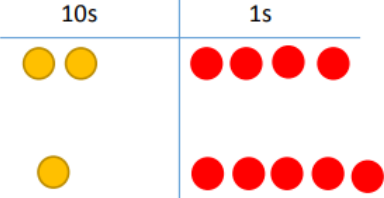
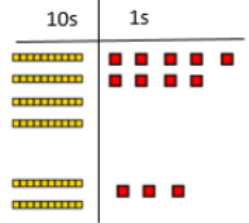
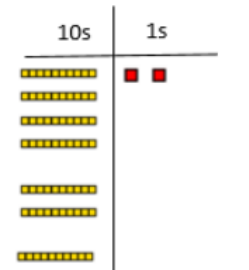
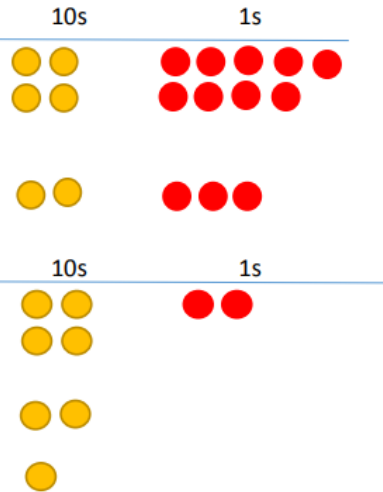
# Year 1

	Objective	Concrete	Pictorial	Abstract
Year 1	Number bonds of 5, 6, 7, 8, 9 and 10	 <p>Use cubes to add two numbers together as a group or in a bar.</p>	 <p>Use pictures to add two numbers together as a group or in a bar.</p>	$2 + 3 = 5$ $3 + 2 = 5$ $5 = 3 + 2$ $5 = 2 + 3$  <p>Use the part-part-whole diagram as shown above to move into the abstract.</p>
	Counting	 <p>Start with the larger number on the bead string and then count on to the smaller number 1 by 1 to find the answer.</p>	<p>Use a number line to count on in ones.</p> 	$5 + 3 = 8$

## Year 1 continued & Year 2

	Objective	Concrete	Pictorial	Abstract
Year 1	Regrouping to make 10	 <p>6 + 5 = 11</p> <p>Start with the bigger number and use the smaller number to make 10.</p>	 <p>6 + 5 = 11</p> <p>4 1</p> <p>6 + 4 = 10</p> <p>10 + 1 = 11</p>	6 + 5 = 11
Year 2	Adding 3 single digit numbers	<p>4 + 7 + 6 = 17</p> <p>Put 4 and 6 together to make 10. Add on 7.</p>  <p>Following on from making 10, make 10 with 2 of the digits (if possible) then add on the third digit.</p>	 <p>Add together three groups of objects. Draw a picture to recombine the groups to make 10.</p>	$\begin{array}{r} \textcircled{4} + 7 + \textcircled{6} = \boxed{10} + \boxed{7} \\ \underbrace{\hspace{1.5cm}}_{10} \\ = \boxed{17} \end{array}$ <p>Combine the two numbers that make 10 and then add on the remainder.</p>

# Year 2

	Objective	Concrete	Pictorial	Abstract
Year 2	Column method without regrouping	<p>Add together the ones first, then add the tens. Use the Base 10 blocks first before moving onto place value counters.</p> <p><math>24 + 15 =</math></p> 	<p>After physically using the base 10 blocks and place value counters, children can draw the counters to help them to solve additions.</p> 	<p><math>24 + 15 = 39</math></p> $\begin{array}{r} 24 \\ + 15 \\ \hline 39 \end{array}$
	Column method with regrouping	<p>Make both numbers on a place value grid.</p>  <p>Add up the units and exchange 10 ones for 1 ten.</p> 	<p>Using place value counters, children can draw the counters to help them to solve additions.</p> 	<p><math>40 + 9</math></p> $\begin{array}{r} 40 \\ + 9 \\ \hline 49 \end{array}$ <p><math>60 + 12 = 72</math></p>

# Year 3 & Above

	Objective	Concrete	Pictorial	Abstract
Year 3/4	Column method with regrouping	<p>Make both numbers on a place value grid.</p> <p>146 + 527</p> <p>Add up the units and exchange 10 ones for 1 ten.</p> <p>146 + 527</p> <p>As children move on to decimals, money and decimal place value counters can be used to support learning.</p> <p><b>NB</b> By Year 4 children will progress on to adding four digit numbers.</p>	<p>100s      10s      1s</p> <p>100s      10s      1s</p> <p>Children can draw a pictorial representation of the columns and place value counters to further support their learning and understanding.</p> <p><b>NB</b> Addition of money needs to have £ and p added separately.</p>	<p>100 + 40 + 6 <u>500 + 20 + 7</u> 600 + 70 + 3 = 673</p> <p>As the children progress, they will move from the expanded to the compacted method.</p> <p>146 + <u>527</u> 673</p> <p>1</p> <p>As the children move on, introduce decimals with the same number of decimal places and different. Money can be used here.</p>
Year 5/6	Column method with regrouping	Consolidate understanding using numbers with more than 4 digits and extend by adding numbers with up to 3 decimal places.		