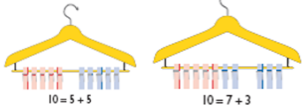
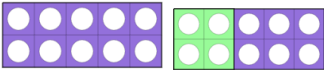


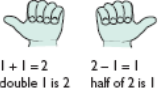




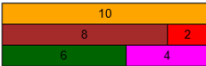
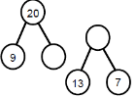
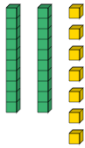
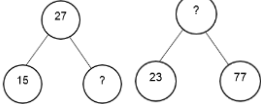


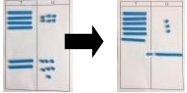
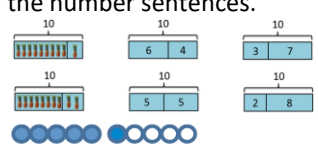


# Addition KS1

EYFS	<b>Reception: ELG 2022</b>																					
	<p>Number ELG</p> <p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> <li>• Have a deep understanding of number to 10, including the composition of each number;</li> <li>• Subitise (recognise quantities without counting) up to 5;</li> <li>• Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</li> </ul> <p><b>Numerical Patterns ELG</b></p> <p>Children at the expected level of development will:</p> <ul style="list-style-type: none"> <li>• Verbally count beyond 20, recognising the pattern of the counting system;</li> <li>• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;</li> <li>• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li> </ul>																					
Year	1	2																				
	Concrete, pictorial, abstract	Concrete, pictorial, abstract																				
Developing Conceptual/ Procedural Understanding	<p><b>Number bonds</b></p>  <p>We have 10 pegs on the coathangers, how can we split them into 2 groups? Is there another way? How can we be sure we have got them all?</p>   <p style="text-align: right;">Ten Frames</p>  <p><b>Count on, on number track in 1s.</b></p> <p><b>Develop knowledge of fact families.</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="2" style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">7</td></tr> </table>	10		3	7	 <p>1 + 1 = 2 double 1 is 2</p> <p>2 - 1 = 1 half of 2 is 1</p>  <p>2 + 2 = 4 double 2 is 4</p> <p>4 - 2 = 2 half of 4 is 2</p>  <p><b>Recognise small quantities</b></p>  <p><b>Count on</b></p>  <p><b>Balance image for concept of equality.</b></p> <p>9 = 9 9 = 8 + 1 9 = 7 + 2 8 + 1 = 7 + 2</p> 	<p><b>Whole-part model</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="2" style="text-align: center;">20</td></tr> <tr><td style="text-align: center;">?</td><td style="text-align: center;">?</td></tr> </table>  <p>Fill in the missing numbers</p>	20		?	?	<p><b>Base 10</b></p>  <p><b>Whole-part model</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="2" style="text-align: center;">27</td></tr> <tr><td style="text-align: center;">15</td><td style="text-align: center;">?</td></tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="2" style="text-align: center;">100</td></tr> <tr><td style="text-align: center;">23</td><td style="text-align: center;">77</td></tr> </table>  <p>Fill in the missing numbers</p> <p>All answers to be recorded in a number sentence following any informal recording.</p>	27		15	?	100		23	77	<p><b>Adjustment strategy</b></p> <p>5 + 9 = 5 + 10 - 1 = 14</p>   <p>(Round and adjust)</p> <p><b>Doubles then near doubles</b></p> <p>5 + 6 = 5 + 5 + 1 = 11</p> <p>7 + 8 = 8 + 8 - 1 = 15</p> <p>47 + 50 =</p> <p><b>Re-arranging</b></p> <p>18 + 4 =</p> <p>Tell me what you know about 4, e.g.</p>	<p><b>Partition and recombine</b></p> <p>Record partitioned steps in number sentences then add mentally.</p> <p>40 + 20 = 60 6 + 7 = 13 60 + 13 = 73</p> <p>Moving on to: 46 + 27 = 60 + 13 = 73</p>  <p>Regrouping the 10.</p> <p><b>Balance in the equation</b></p> <p>14 = 8 + 6, 7 + 6 = 8 + 5 □ = 13 + 9 3 + □ + 6 = 16 14 + ◇ = 15 + 27</p>
10																						
3	7																					
20																						
?	?																					
27																						
15	?																					
100																						
23	77																					

## Addition KS1

	<p>Use the pattern to complete the number sentences.</p>  <p>Use bonds of 10 to calculate bonds of 20.</p>	$10 = 3+7$ $10 = 7+3$ $10 - 7 = 3$ $10 - 3 = 7$	<p><math>10 = 10</math>  <math>10 = 8 + 2</math>  <math>10 = 6 + 4</math>  <math>8 + 2 = 6 + 4</math></p>	<p><b>Adding more than two numbers</b></p> <p>Strategy to include looking for facts or bonds that are useful e.g. bonds up to and including 10, doubles or adding 10 to a given number.</p> <p><math>6 + 3 + 4 = 13</math>  <small style="margin-left: 10px;">10</small></p> <p><math>6 + 3 + 4 + 7 + 2 = 22</math>  <small style="margin-left: 10px;">10</small></p> <p>Record thinking.</p>	<p><math>3+1, 2+2</math>  <math>18+4=</math> Rearrange the 4 into 2+2  <math>18+2+2= 20+2 =22</math></p> <p><math>59+24 =</math> Partition the 24 into 20 +4 and rearrange the 4 into 1+3.</p> <p>So <math>59+24=</math>  <math>59+20+1+3 =</math>  <math>59+1+20+3 = 83</math></p>	<p><b>Decision making</b></p> <p>Using statements such as:            Ben did <math>14 + 9 = 23</math>            How could he have done it?</p> <p>When secure, children can move on to column addition:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr><td style="width: 20px; text-align: center;">1</td><td style="width: 20px; text-align: center;">4</td></tr> <tr><td style="text-align: center;">+</td><td style="text-align: center;">2</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">7</td></tr> </tbody> </table>	1	4	+	2	2	3	3	7
1	4													
+	2													
2	3													
3	7													
Known facts	Represent & use number bonds and related subtraction facts within 20 Add and subtract 1 digit and 2 digit numbers to 20, including zero		Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.											
Essential Knowledge	1 more	Number bonds: 5 and 6	10 more	Number bonds:20,12 and 13										
	Largest number first.	Number bonds: 7 and 8	Add 1 digit to 2 digit by bridging	Number bonds: 14 and 15										
	Add 10.	Number bonds:9 and 10	Partition second number and add tens then ones.	Number bonds: 16 and 17										
	Ten plus ones.	Use number bonds of 10 to derive bonds of 11	Add 10 and multiples of 10.	Number bonds: 18 and 19										
	Doubles up to 10.		Doubles up to 20 and multiples of 5.	Partition and recombine.										
			Add near multiples of 10.											