

**SUBTRACTION**

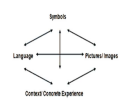


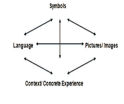
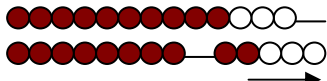
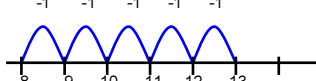
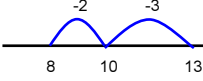
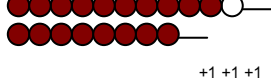
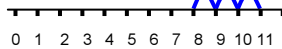
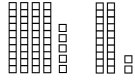
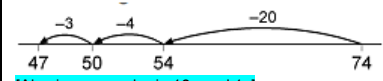

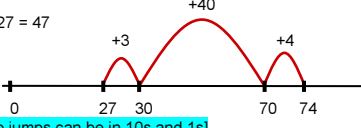
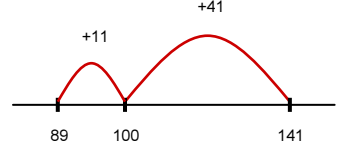
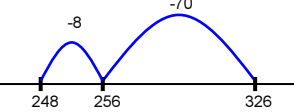


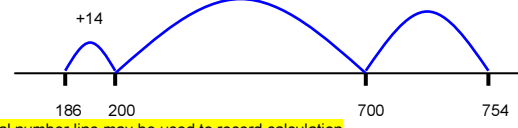
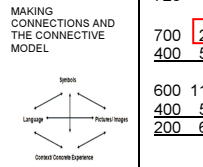
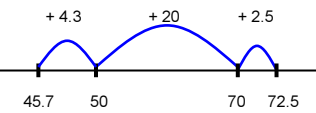
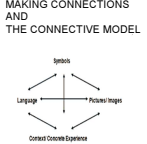
**AGE-RELATED EXPECTATIONS**

**Recording**

Rapid Recall

Mental Calculation

Estimation and checking

<p>YR</p>	<p>Subtraction as 'taking away' from a group</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p>REAL EXPERIENCES, Pictures / Objects</p> <p>I have five cakes. I eat two of them. How many do I have left?</p>  <p>Might be recorded as: <math>5 - 2 = 3</math></p>	<p>Symbols</p> <p>Mum baked 9 biscuits. I ate 5. How many were left?</p> <p>[Might be recorded as: <math>9 - 5 = 4</math>]</p> 	<p>1 less (nos up to 10)</p>	<p>(see recording)</p>																																	
<p>Y1</p>	<p>Subtraction as 'taking away' and 'difference' (by counting on)</p> <p>U – U TU – U (bridging 10)</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p><b>Taking away</b> – jumps of 1 (modelled using bead strings)</p> <p><math>13 - 5 = 8</math></p>  	<p><b>Taking away</b> (efficient jumps)</p> <p><math>13 - 5 = 8</math></p>  <p>No number line:</p> <p><math>13 - 3 = 10</math> <math>10 - 2 = 8</math></p>	<p><b>Counting on</b> – jumps of 1 (modelled using bead strings)</p> <p><math>11 - 8 = 3</math></p>  	<p><b>Counting on</b> (efficient jumps)</p> <p>Number line / no number line</p> <p><math>8 + 2 = 10</math> <math>10 + 1 = 11</math></p>	<p>Subtraction facts to 10</p> <p>1 / 10 less than a number</p>	<p>TU – multiple of 10</p>																															
<p>Y2</p>	<p>Subtraction as inverse of addition TU – TU (bridging 10s)</p>	<p>Pictures / Symbols</p> <p><math>45 - 22 = 23</math></p> 	<p>Number lines - <b>taking away</b></p> <p><math>74 - 27 = 47</math></p>  <p>[Also jumps can be in 10s and 1s]</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p>Number lines – <b>counting on</b></p> <p><math>74 - 27 = 47</math></p>  <p>[Also jumps can be in 10s and 1s]</p>	<p>Subtraction facts to at least 10</p>	<p>Difference by counting up</p> <p>TU – U / multiple of 10</p>																																
<p>Y3</p>	<p>TU – TU HTU – TU HTU – HTU</p>	<p>Number line – <b>counting on</b></p> <p><math>141 - 89 = 52</math></p> 	<p>Number line - <b>taking away</b></p> <p><math>326 - 78 = 248</math></p>  <p>Vertical number line may be used to record calculation</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p><b>Decomposition by partitioning</b></p> <p><math>272 - 48 = 224</math> [Red Alert]</p> <table border="1"> <tr><td>200</td><td>70</td><td></td></tr> <tr><td>-</td><td>40</td><td>8</td></tr> <tr><td>200</td><td>60</td><td>12</td></tr> <tr><td></td><td>40</td><td>8</td></tr> <tr><td>200</td><td>20</td><td>4</td></tr> </table>	200	70		-	40	8	200	60	12		40	8	200	20	4	<p>Subtraction facts to 20</p> <p>Differences of multiples of 10</p>	<p>TU – U / TU</p> <p>HTU – HTU (by finding the difference)</p> <p>TU – near multiple of 10 (positive answers)</p>																
200	70																																						
-	40	8																																					
200	60	12																																					
	40	8																																					
200	20	4																																					
<p>Y4</p>	<p>HTU – TU HTU – HTU</p> <p>Decimals: money (£7.85 – £3.49)</p>	<p>Number lines – <b>counting on</b></p> <p><math>754 - 186 = 568</math></p>  <p>Vertical number line may be used to record calculation</p>	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p><b>Decomposition by partitioning</b></p> <p><math>723 - 458 = 265</math> [Red Alert]</p> <table border="1"> <tr><td>700</td><td>20</td><td>3</td></tr> <tr><td>-</td><td>400</td><td>50</td><td>8</td></tr> <tr><td>600</td><td>110</td><td>13</td></tr> <tr><td>-</td><td>400</td><td>50</td><td>8</td></tr> <tr><td>200</td><td>60</td><td>5</td></tr> </table>	700	20	3	-	400	50	8	600	110	13	-	400	50	8	200	60	5	<p><b>Formal Method</b></p> <table border="1"> <tr><td>5</td><td>13</td><td>11</td></tr> <tr><td>7</td><td>4</td><td>4</td></tr> <tr><td>-</td><td>3</td><td>6</td><td>7</td></tr> <tr><td>3</td><td>7</td><td>4</td></tr> </table>	5	13	11	7	4	4	-	3	6	7	3	7	4	<p>Derive differences of pairs of multiples of 10 / 100 / 1000</p>	<p>TU – TU</p> <p>Subtract pairs of multiples of 10 / 100 / 1000</p> <p>(Th)HTU – (Th)HTU (small difference)</p>		
700	20	3																																					
-	400	50	8																																				
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5	13	11																																					
7	4	4																																					
-	3	6	7																																				
3	7	4																																					
<p>Y5</p>	<p>ThHTU – HTU</p> <p>Decimals up to 2dp (72.5 – 45.7)</p>	<p>Number lines – <b>counting on</b></p> <p><math>72.5 - 45.7 = 26.8</math></p> 	<p>MAKING CONNECTIONS AND THE CONNECTIVE MODEL</p> 	<p><b>Decomposition by partitioning</b></p> <p><math>2362 - 548 = 1814</math> [Red Alert]</p> <table border="1"> <tr><td>2000</td><td>300</td><td>60</td><td>2</td></tr> <tr><td>-</td><td>500</td><td>40</td><td>8</td></tr> <tr><td>1000</td><td>1300</td><td>50</td><td>12</td></tr> <tr><td>-</td><td>500</td><td>40</td><td>8</td></tr> <tr><td>1000</td><td>800</td><td>10</td><td>4</td></tr> </table>	2000	300	60	2	-	500	40	8	1000	1300	50	12	-	500	40	8	1000	800	10	4	<p><b>Formal Method</b></p> <p><math>72.5 - 45.7</math></p> <table border="1"> <tr><td>6</td><td>7</td><td>11</td><td>2</td><td>15</td></tr> <tr><td>-</td><td>4</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>6</td><td>8</td></tr> </table>	6	7	11	2	15	-	4	5	7	2	6	8	<p>Use number facts for mental subtraction</p> <p><math>9 - 2 = 7</math> <math>0.9 - 0.2 = 0.7</math> <math>0.09 - 0.02 = 0.07</math></p>	<p>Near multiple of 1000 – Near multiple of 1000 (eg 6070 – 4097)</p> <p>Decimal – Decimal (eg 9.5 – 3.7)</p>
2000	300	60	2																																				
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-	4	5	7																																				
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<p>Y6</p>	<p>Consolidate / extend Y5 including: Decimal to 3 dp relating to measures</p>	<p><b>Recognise when one written method is more efficient. (See Y5 methods of recording)</b></p> <ul style="list-style-type: none"> <li>➢ There was 2.5 litres in the jug. Stuart drank 385 ml. How much was left?</li> <li>➢ 18.07 km – 3.243 km</li> </ul>				<p>(as above)</p>	<p>Integer / decimal (1dp) – Integer / decimal (1dp)</p>																																