
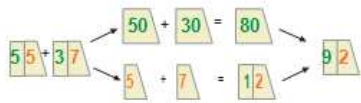
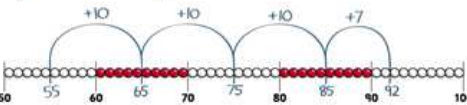
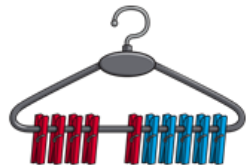
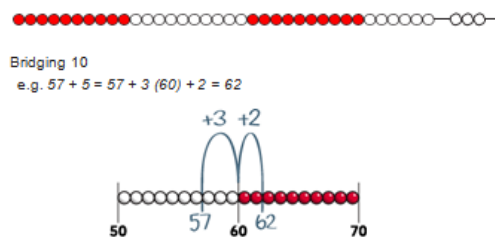

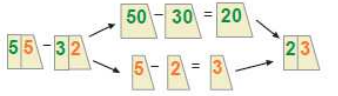
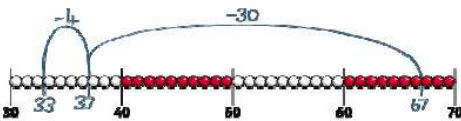
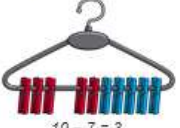
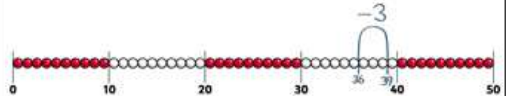
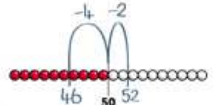
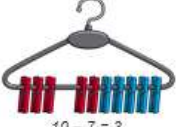
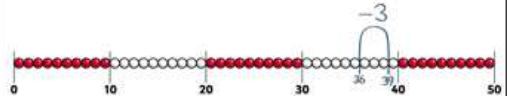
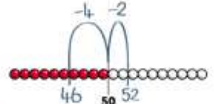


Overview of Strategies and Methods – Addition

	Year 1	Year 2									
Mental Addition	<p><b>Using place value</b> Count in 1s e.g. <math>45 + 1</math> Count in 10s e.g. <math>45 + 10</math> without counting on in 1s</p> <table border="1"> <tr><td>34</td><td>35</td><td>36</td></tr> <tr><td>44</td><td>45</td><td>46</td></tr> <tr><td>54</td><td>55</td><td>56</td></tr> </table> <p>Add 10 to any given 2-digit number</p> <p><b>Counting on</b> Count on in 1s e.g. <math>8 + 3</math> as 8, 9, 10, 11</p>  <p>Add, putting the larger number first Count on in 10s e.g. <math>45 + 20</math> as 45, 55, 65</p>	34	35	36	44	45	46	54	55	56	<p><b>Using place value</b> Know 1 more or 10 more than any number e.g. 1 more than 67 e.g. 10 more than 85 Partitioning e.g. <math>55 + 37</math> as <math>50 + 30</math> and <math>5 + 7</math>, then finally combine the two totals: <math>80 + 12</math></p>  <p><b>Counting on</b> Add 10 and multiples of 10 to a given 1- or 2-digit number e.g. <math>76 + 20</math> as 76, 86, 96 or in one hop: <math>76 + 20 = 96</math> Add two 2-digit numbers by counting on in 10s, then in 1s e.g. <math>55 + 37</math> as <math>55 + 30</math> (85) + 7 = 92</p>  <p>Add near multiples of 10 e.g. <math>46 + 19</math> e.g. <math>63 + 21</math></p>
	34	35	36								
44	45	46									
54	55	56									
Mental Addition	<p><b>Using number facts</b> 'Story' of 4, 5, 6, 7, 8 and 9 e.g. <math>7 = 7 + 0</math>, <math>6 + 1</math>, <math>5 + 2</math>, <math>4 + 3</math> Number bonds to 10 e.g. <math>5 + 5</math>, <math>6 + 4</math>, <math>7 + 3</math>, <math>8 + 2</math>, <math>9 + 1</math>, <math>10 + 0</math></p>  <p><math>4 + 6 = 10</math></p> <p>Use patterns based on known facts when adding e.g. <math>4 + 3 = 7</math> so we know <math>24 + 3</math>, <math>44 + 3</math>, <math>74 + 3</math></p>	<p><b>Using number facts</b> Know pairs of numbers which make the numbers up to and including 12 e.g. <math>8 = 4 + 4</math>, <math>3 + 5</math>, <math>2 + 6</math>, <math>1 + 7</math>, <math>0 + 8</math> e.g. <math>10 = 5 + 5</math>, <math>4 + 6</math>, <math>3 + 7</math>, <math>2 + 8</math>, <math>1 + 9</math>, <math>0 + 10</math> Use patterns based on known facts when adding e.g. <math>6 + 3 = 9</math>, so we know <math>36 + 3 = 39</math>, <math>66 + 3 = 69</math>, <math>56 + 3 = 59</math></p>  <p>Bridging 10 e.g. <math>57 + 5 = 57 + 3</math> (60) + 2 = 62</p> <p>Add three or more 1-digit numbers, spotting bonds to 10 or doubles e.g. <math>3 + 5 + 3 = 6 + 5 = 11</math> e.g. <math>8 + 2 + 4 = 10 + 4 = 14</math></p>									

Overview of Strategies and Methods – Subtraction

	Year 1	Year 2									
Mental Subtraction	<p><b>Using place value</b> Count back in 1s e.g. Know <math>53 - 1</math> Count back in 10s e.g. Know <math>53 - 10</math> without counting back in 1s</p> <table border="1"> <tr><td>32</td><td>33</td><td>34</td></tr> <tr><td>42</td><td>43</td><td>44</td></tr> <tr><td>52</td><td>53</td><td>54</td></tr> </table> <p><b>Taking away</b> Count back in 1s e.g. <math>11 - 3</math> as 11, 10, 9, 8 e.g. <math>14 - 3</math> as 14, 13, 12, 11</p>  <p>Count back in 10s e.g. <math>53 - 20</math> as 53, 43, 33</p>	32	33	34	42	43	44	52	53	54	<p><b>Using place value</b> Know 1 less or 10 less than any number e.g. 1 less than 74 e.g. 10 less than 82 Partitioning e.g. <math>55 - 32</math> as <math>50 - 30</math> and <math>5 - 2</math> and combine the answers: <math>20 + 3</math></p>  <p><b>Taking away</b> Subtract 10 and multiples of 10 e.g. <math>76 - 20</math> as 76, 66, 56 or in one hop: <math>76 - 20 = 56</math> Subtract two 2-digit numbers by counting back in 10s, then in 1s e.g. <math>67 - 34</math> as 67 subtract 30 (37) then count back 4 (33)</p>  <p>Subtract near multiples of 10 e.g. <math>74 - 21</math> e.g. <math>57 - 19</math></p>
	32	33	34								
42	43	44									
52	53	54									
Mental Subtraction	<p><b>Using number facts</b> 'Story' of 4, 5, 6, 7, 8 and 9 e.g. 'Story' of 7 is <math>7 - 1 = 6</math>, <math>7 - 2 = 5</math>, <math>7 - 3 = 4</math> Number bonds to 10 e.g. <math>10 - 1 = 9</math>, <math>10 - 2 = 8</math>, <math>10 - 3 = 7</math></p>  <p><math>10 - 7 = 3</math></p> <p>Subtract using patterns of known facts e.g. <math>7 - 3 = 4</math> so we know <math>27 - 3 = 24</math>, <math>47 - 3 = 44</math>, <math>77 - 3 = 74</math></p>	<p><b>Using number facts</b> Know pairs of numbers which make the numbers up to and including 12 and derive related subtraction facts e.g. <math>10 - 6 = 4</math>, <math>8 - 3 = 5</math>, <math>5 - 2 = 3</math> Subtract using patterns of known facts e.g. <math>9 - 3 = 6</math>, so we know <math>39 - 3 = 36</math>, <math>69 - 3 = 66</math>, <math>89 - 3 = 86</math></p>  <p>Bridging 10 e.g. <math>52 - 6</math> as <math>52 - 2</math> (50) - 4 = 46</p>  <p><b>Counting up</b> Find a difference between two numbers on a line where the numbers are close together e.g. <math>51 - 47</math></p>									

	Year 1	Year 2
Mental Subtraction	<p><b>Using number facts</b> 'Story' of 4, 5, 6, 7, 8 and 9 e.g. 'Story' of 7 is <math>7 - 1 = 6</math>, <math>7 - 2 = 5</math>, <math>7 - 3 = 4</math> Number bonds to 10 e.g. <math>10 - 1 = 9</math>, <math>10 - 2 = 8</math>, <math>10 - 3 = 7</math></p>  <p><math>10 - 7 = 3</math></p> <p>Subtract using patterns of known facts e.g. <math>7 - 3 = 4</math> so we know <math>27 - 3 = 24</math>, <math>47 - 3 = 44</math>, <math>77 - 3 = 74</math></p>	<p><b>Using number facts</b> Know pairs of numbers which make the numbers up to and including 12 and derive related subtraction facts e.g. <math>10 - 6 = 4</math>, <math>8 - 3 = 5</math>, <math>5 - 2 = 3</math> Subtract using patterns of known facts e.g. <math>9 - 3 = 6</math>, so we know <math>39 - 3 = 36</math>, <math>69 - 3 = 66</math>, <math>89 - 3 = 86</math></p>  <p>Bridging 10 e.g. <math>52 - 6</math> as <math>52 - 2</math> (50) - 4 = 46</p>  <p><b>Counting up</b> Find a difference between two numbers on a line where the numbers are close together e.g. <math>51 - 47</math></p>

Year 1		Year 2	
Mental Multiplication	<b>Doubling and halving</b> Find doubles to double 5 using fingers e.g. double 3	<b>Grouping</b> Use arrays to find answers to multiplication and relate to 'clever' counting e.g. $3 \times 4$ as three lots of four things e.g. $6 \times 5$ as six steps in the 5s count as well as six lots of five	

Year 1		Year 2	
Mental Multiplication	<b>Grouping</b> Begin to use visual and concrete arrays and sets of objects to find the answers to 'three lots of four' or 'two lots of five' e.g. three lots of four	<b>Using number facts</b> Know doubles to double 20 e.g. double 7 is 14	

Year 1		Year 2	
Mental Division	<b>Grouping</b> Begin to use visual and concrete arrays and 'sets of' objects to find the answers to questions such as 'How many towers of three can I make with twelve cubes?'	<b>Grouping</b> Relate division to multiplication by using arrays or towers of cubes to find answers to division e.g. 'How many towers of five cubes can I make from twenty cubes?' as $4 \times 5 = 20$ and also as $20 \div 5 = 4$	
	<b>Sharing</b> Begin to find half of a quantity using sharing e.g. find half of 16 cubes by giving one each repeatedly to two children		

<b>Sharing</b> Begin to find half or a quarter of a quantity using sharing e.g. find a quarter of 16 cubes by sorting the cubes into four piles	
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Find $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$ of small quantities	
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<b>Using number facts</b> Know half of even numbers up to 24 Know $\times 2$ , $\times 5$ and $\times 10$ division facts Begin to know $\times 3$ division facts	
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## Overview of Strategies and Methods – Multiplication and Division

Year 1		Year 2	
Mental Multiplication	<b>Counting in steps ('clever' counting)</b> Count in 2s		<b>Counting in steps ('clever' counting)</b> Count in 2s, 5s and 10s
	<b>Count in 10s</b>		

Year 1		Year 2	
Mental Multiplication	<b>Counting in steps ('clever' counting)</b> Count in 2s		<b>Counting in steps ('clever' counting)</b> Count in 2s, 5s and 10s
	<b>Count in 10s</b>		

Year 1		Year 2	
Mental Division	<b>Counting in steps ('clever' counting)</b> Count in 2s		<b>Counting in steps ('clever' counting)</b> Count in 2s, 5s and 10s
	<b>Count in 10s</b>		

Year 1		Year 2	
Mental Division	<b>Counting in steps ('clever' counting)</b> Count in 2s		<b>Counting in steps ('clever' counting)</b> Count in 2s, 5s and 10s
	<b>Count in 10s</b>		

Year 1		Year 2	
Mental Division	<b>Counting in steps ('clever' counting)</b> Count in 2s		<b>Counting in steps ('clever' counting)</b> Count in 2s, 5s and 10s
	<b>Count in 10s</b>		

<b>Doubling and halving</b> Find half of even numbers up to 12, including realising that it is hard to halve an odd number	
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<b>Doubling and halving</b> Find half of numbers up to 40, including realising that half of an odd number gives a remainder of 1 or an answer containing a $\frac{1}{2}$ e.g. $\frac{1}{2}$ of 11 = $5 \frac{1}{2}$	
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Begin to know half of multiples of 10 to 100 e.g. half of 70 is 35	
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