
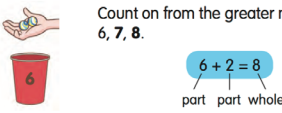
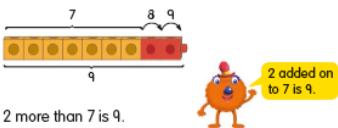



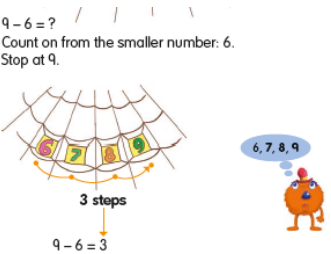


Progression of Key Concepts in Inspire Maths					
Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide					
Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p><b>Number bonds:</b> TG1A Unit 2 p32</p> <p><b>Key concepts:</b> using concrete representations – cubes, balances. ‘part-whole’.</p> <p><b>Addition within 10:</b> TG1A Unit 3 p48</p> <p><b>Key concepts:</b> using concrete representations to support ‘counting on’ and ‘part-whole’ relating addition to number bonds. The + (plus) and = (equals) symbols are introduced here as one of the C-P-A representations within this unit.</p> <p>- Adding by counting on:</p>  <p>Count on from the greater number. 6, 7, 8.</p>  <p>What is 2 more than 7?</p>  <p>2 more than 7 is 9.</p>	<p><b>Addition and subtraction within 1000:</b> TG2A Unit 2 p43</p> <p><b>Key concepts:</b> using place value charts with concrete representations. Using horizontal and column addition/subtraction.</p> <ul style="list-style-type: none"> <li>- HTU ± U – no regrouping</li> <li>- HTU ± TU – no regrouping</li> <li>- HTU ± HTU – no regrouping</li> <li>- HTU ± HTU – regrouping ones</li> <li>- HTU ± HTU – regrouping tens</li> <li>- HTU ± HTU – regrouping TU</li> <li>- HTU - HTU – regrouping HT</li> <li>- HTU - HTU – regrouping HTU</li> <li>- Subtraction with numbers that have zero – HTU - TU moving to HTU - HTU</li> </ul> <p><b>Using models: Addition and subtraction:</b> TG2A Unit 3 p100</p> <p><b>Key concepts:</b> part-whole using models either with paper strips or by drawing bars.</p> <p><b>Length:</b> TG2A Unit 8 p250</p> <p><b>Key concepts:</b> ‘part-whole’, ‘adding on’, ‘taking away’ and ‘comparing’ using models.</p> <p>- Addition and subtraction of length</p>	<p><b>Addition of numbers within 10 000:</b> TG3A Unit 2 p38</p> <p><b>Key concepts:</b> addition with, then without, place value charts and concrete representations. Using column addition.</p> <ul style="list-style-type: none"> <li>- ThHTU + ThHTU – no regrouping</li> <li>- ThHTU + ThHTU – regrouping H</li> <li>- ThHTU + ThHTU – regrouping HTU</li> </ul> <p><b>Subtraction of numbers within 10 000:</b> TG3A Unit 3 p63</p> <p><b>Key concepts:</b> using place value charts with concrete representations. Using column subtraction.</p> <ul style="list-style-type: none"> <li>- Meaning of difference</li> <li>- ThHTU + ThHTU – no regrouping</li> <li>- ThHTU + ThHTU – regrouping ThH</li> <li>- ThHTU + ThHTU – regrouping ThHTU</li> <li>- Subtraction with numbers that have zeros – ThHTU - HTU</li> </ul> <p><b>Solving word problems 1: addition and subtraction:</b> TG3A Unit 4 p94</p> <p><b>Key concepts:</b> ‘part-whole’, ‘adding on’, ‘comparing’, ‘taking away’ and using models.</p>	<p><b>Whole Numbers (3): Word problems (involving the four operations using a formal algorithm):</b> TG4A Unit 3 p85</p> <ul style="list-style-type: none"> <li>- Solve up to 3 step whole number word problems involving the four operations</li> <li>- Use model drawing and the unitary method to solve word problems</li> <li>- Use part-whole, comparison, adding on or taking away model drawings to solve word problems</li> </ul> <p><b>Decimals (2):</b> TG4B Unit 10 p64</p> <ul style="list-style-type: none"> <li>- ± involving tenths without regrouping</li> <li>- ± involving tenths and ones with regrouping tenths and ones</li> <li>- ± involving hundredths without regrouping</li> <li>- ± involving hundredths, tenths and ones with regrouping hundredths first, moving to regrouping hundredths, tenths and ones</li> <li>- Word problems up to 2 decimal places</li> </ul>	<p><b>Whole Numbers (2):</b> TG5A Unit 2 p49</p> <ul style="list-style-type: none"> <li>- Using a calculator, order of operations and Word problems</li> <li>- Application of concepts and skills of four operations</li> </ul>	<p><b>Algebra:</b> TG6A Unit 1 p4</p> <ul style="list-style-type: none"> <li>- Solve simple word problems involving algebraic expressions.</li> </ul>

## Progression of Key Concepts in Inspire Maths

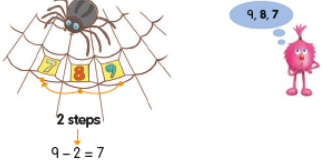


Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide


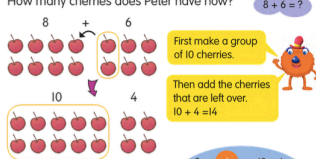
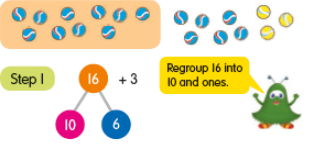
Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p>- Adding with number bonds:</p>  <p>How many penguins are there altogether? 3 + 5 = ?</p>  <p><b>Subtraction within 10: TG1A Unit 4 p73</b></p> <p><b>Key concepts:</b> using concrete representations to support 'taking away', 'counting on', 'counting back' and 'part-whole' relating to subtraction number bonds. The - (minus) and = (equals) symbols are introduced here as one of the C-P-A representations within this unit.</p> <p>- Subtracting by taking away:</p> <p>There are 9 spiders. Cross out 6 spiders. There are 3 spiders left.</p> 	<p><b>Mass: TG2A Unit 9 p287</b></p> <p><b>Key concepts:</b> 'part-whole', 'adding on', 'taking away' and 'comparing' using models.</p> <p>- Addition and subtraction of mass</p> <p><b>Mental calculations: TG2B Unit 10 p4</b></p> <p><b>Key concepts:</b> Number bonds involving tens and 'part-whole'.</p> <p><b>Money: TG2B Unit 11 p34</b></p> <p><b>Key concepts:</b> 'part-whole', 'adding on', 'taking away' and 'comparing' using models.</p> <p>- Word problems: Addition and subtraction of money</p> <p><b>Volume: TG2B Unit 14 p147</b></p> <p><b>Key concepts:</b> 'part-whole', 'adding on', 'taking away' and 'comparing' using models.</p> <p>- Addition and subtraction of volumes</p>	<p><b>Mental calculations: TG3A Unit 9 p232</b></p> <p><b>Key concepts:</b> applying number bonds.</p> <p><b>Money: TG3B Unit 10 p4</b></p> <p><b>Key concepts:</b> Adding/subtracting money is similar to adding/subtracting whole numbers</p> <p><b>Addition:</b></p> <ul style="list-style-type: none"> <li>- Add two amounts of money without regrouping by first adding the pounds then the pence</li> <li>- Add two amounts of money where pence add up to £1</li> <li>- Add two amounts of money using the following strategies: <ul style="list-style-type: none"> <li>(1) decomposition</li> <li>(2) compensation in which one amount is made into a whole number of pounds</li> </ul> </li> <li>- Add two amounts of money using the standard method</li> </ul> <p><b>Subtraction:</b></p> <ul style="list-style-type: none"> <li>- Subtract two amounts of money without regrouping by first subtracting the pounds then the pence</li> <li>- Subtract two amounts money using the strategy of compensation, in which the amount subtracted is rounded up to the nearest pound</li> <li>- Subtract two amounts of money using the standard method</li> </ul>			

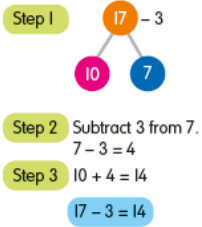
Progression of Key Concepts in Inspire Maths					
Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide					
Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p>- Subtracting by counting on:</p> <p>There are 9 flies. 6 flies are stuck in a web. How many flies are still flying?</p> <p><math>9 - 6 = ?</math></p> <p>Count on from the smaller number:</p> <p>6. Stop at 9.</p>  <p><math>9 - 6 = 3</math></p> <p>- Subtracting by counting back:</p> <p><math>9 - 2 = ?</math></p> <p>Start from the greater number, 9. Count back 2 steps.</p>	<p><b>Key vocabulary</b></p> <ul style="list-style-type: none"> <li>- grouping: TG2A p135</li> <li>- volume: TG2B p137</li> <li>- model: TG2A p100</li> <li>- item: TG2A p108</li> <li>- two-step word problem: TG2A p113</li> </ul>	<p><u>Solving word problems: Length, Mass and volume: TG3B Unit 12 p67</u></p> <p><b>Key concepts:</b> addition and subtraction one- and two-step problems</p> <p><u>Time: TG3B Unit 15 p167</u></p> <p><b>Addition:</b></p> <ul style="list-style-type: none"> <li>- Add time with no regrouping by adding the hours first then the minutes</li> <li>- Add time with regrouping by adding the minutes first then the hours</li> </ul> <p><b>Subtraction:</b></p> <ul style="list-style-type: none"> <li>- Subtract time without regrouping by subtracting the hours first then the minutes</li> <li>- Subtract time with regrouping by first regrouping the hours and minutes, next subtracting the minutes, then subtracting the hours</li> </ul> <p><b>Key vocabulary</b></p> <ul style="list-style-type: none"> <li>- sum: TG3A p25</li> <li>- difference: TG3A p37</li> </ul>			

## Progression of Key Concepts in Inspire Maths

Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide

Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p><math>9 - 2 = ?</math> Start from the greater number, 9. Count back 2 steps.</p>  <p><math>9 - 2 = 7</math></p> <p>- Subtracting with number bonds:</p> <p>There are 9 bean bags altogether. How many bean bags does Ruby have on her head?</p>  <p><math>9 - 4 = 5</math></p> <p><b><u>A family of number sentences can be written from a set of three related numbers: 1A Unit 4 p84</u></b></p>  <p>How many balls of string are yellow? <math>7 - 2 = 5</math></p> <p>How many balls of string are blue? <math>7 - 5 = 2</math></p> <p>How many balls of string are there altogether? <math>2 + 5 = 7</math> or <math>5 + 2 = 7</math></p>					

Progression of Key Concepts in Inspire Maths					
Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide					
Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p><b><u>Addition and subtraction within 20:</u></b> <b><u>TG1A Unit 8 p194</u></b></p> <p><b>Key concepts:</b> using concrete representations to support 'make 10', 'taking away', 'adding on' and 'part-whole'.</p> <p>- <i>Adding by making 10: adding two 1-digit numbers using the make 10 strategy:</i></p> <p><b>Adding by making 10</b></p> <p>1 Peter has 8 cherries. Ruby gives him 6 more.</p>  <p>How many cherries does Peter have now? <math>8 + 6 = ?</math></p>  <p>8 + 6 = 10 + 4 = 14</p> <p>Peter has 14 cherries now.</p> <p>- <i>Adding by regrouping into tens and ones:</i></p>  <p>Step 1 <math>16 + 3</math></p> <p>Regroup 16 into 10 and ones.</p> <p>Step 2 Add 3 to 6. <math>6 + 3 = 9</math></p> <p>Step 3 <math>10 + 9 = 19</math></p> <p><math>16 + 3 = 19</math></p>					

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<p>- Subtracting by regrouping into tens and ones:</p>  <p>Step 1</p> <p>Step 2 Subtract 3 from 7. <math>7 - 3 = 4</math></p> <p>Step 3 <math>10 + 4 = 14</math> <math>17 - 3 = 14</math></p> <p>Peter has 14 toy cars left.</p> <p><b>Numbers to 40: TG1B Unit 12 p59</b></p> <p><b>Key concepts:</b> using concrete representations to support 'counting on', 'number bond' and 'part-whole'. The vertical addition and subtraction strategy is introduced here using a place value chart.</p> <p>- Simple addition and subtraction:</p> <ul style="list-style-type: none"> <li>- <math>TU \pm U</math> – no regrouping</li> <li>- <math>TU \pm tens</math> – no regrouping</li> <li>- <math>TU \pm TU</math> – no regrouping</li> <li>- <math>TU \pm U</math> – regrouping</li> <li>- <math>TU \pm TU</math> – regrouping ones</li> </ul> <p>- Adding three numbers:</p>					

## Progression of Key Concepts in Inspire Maths

Addition and subtraction (making connections between the units) with reference to the pages in the Teacher's Guide

Inspire Maths 1	Inspire Maths 2	Inspire Maths 3	Inspire Maths 4	Inspire Maths 5	Inspire Maths 6
<p><b>Adding three numbers</b></p> <p>1 <math>5 + 7 + 6 = ?</math></p> <p>a</p> <p>Step 1: <math>5 + 2 = 7</math> (Make 10 first. <math>5 + 5 = 10</math>)</p> <p>Step 2: <math>2 + 6 = 8</math></p> <p>Step 3: <math>10 + 8 = 18</math></p> <p><math>5 + 7 + 6 = 18</math></p> <p>or</p> <p>b</p> <p>Step 1: <math>7 + 3 = 10</math> (Make 10 first. <math>7 + 3 = 10</math>)</p> <p>Step 2: <math>5 + 3 = 8</math></p> <p>Step 3: <math>10 + 8 = 18</math></p> <p><math>5 + 7 + 6 = 18</math></p> <p><b><u>Mental addition and subtraction: TG1B</u></b> <b><u>Unit 13 p109</u></b></p> <p><b>Key concepts:</b> adding is conceptualized as adding or putting parts together</p> <p>- <b>Mental addition:</b> What is <math>15 + 20</math>?</p> <p>Regroup 15 into tens and ones.</p> <p>First add the tens. <math>10 + 20 = 30</math></p> <p>Then add the result to the ones. <math>5 + 30 = 35</math></p> <p>- <b>Mental subtraction:</b> What is <math>28 - 3</math>?</p> <p>Regroup 28 into tens and ones.</p> <p>First subtract the ones. <math>8 - 3 = 5</math></p> <p>Then add the result to the tens. <math>20 + 5 = 25</math></p>					

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<p><b><u>Numbers to 100: TG1B Unit 17 p190</u></b></p> <p><b>Key concepts:</b> using concrete representations to support 'counting on', 'number bond', 'part-whole' and adding ones first followed by the tens. Using the vertical addition strategy with a place value chart.</p> <p>- Simple addition and subtraction:                      - <math>TU \pm U</math> – no regrouping                      - <math>TU \pm tens</math> – no regrouping                      - <math>TU \pm TU</math> – no regrouping                      - <math>TU \pm U</math> – regrouping                      - <math>TU \pm TU</math> – regrouping ones</p> <p><b><u>Money (2): TG1B Unit 19 p252</u></b></p> <p><b>Key concepts:</b> using concrete representations to support comparing, 'number bond' and 'part-whole'</p> <p>- Adding and subtracting in pence                      - Adding and subtracting in pounds</p> <p><b><u>Key vocabulary</u></b></p> <ul style="list-style-type: none"> <li>- count on: TG1A p10</li> <li>- number bond: TG1A p32</li> <li>- part: TG1A p32</li> <li>- whole: TG1A p32</li> <li>- add: TG1A p48</li> <li>- plus: TG1A p48</li> <li>- equals: TG1A p48</li> <li>- addition sentence: TG1A p48</li> <li>- group: TG1A p32</li> <li>- total: TG1A p49</li> <li>- most: TG1A p51</li> </ul>					



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<ul style="list-style-type: none"> <li>- rounds: TG1A p51</li> <li>- addition story: TG1A p54</li> <li>- word problem: TG1A p56</li> <li>- regroup: TG1A p197</li> <li>- subtract: TG1A p73</li> <li>- minus: TG1A p73</li> <li>- taking away: TG1A p73</li> <li>- step: TG1A p75</li> <li>- counting back: TG1A p77</li> <li>- subtraction story: TG1A p80</li> <li>- number sentence: TG1A p84</li> </ul>					