

Crowmoor School



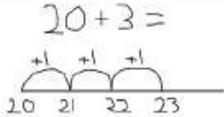
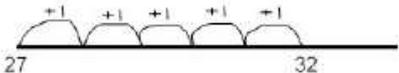
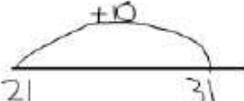
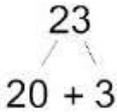
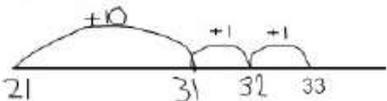
Y2 Calculations Policy

2017

Addition Year 2

Focus: Adding two 2 digit numbers

In year 2 children will move onto using an open number line to add 1 and 2 digit numbers. They will learn how to partition 2 digit numbers.

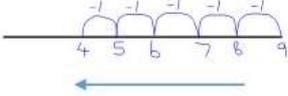
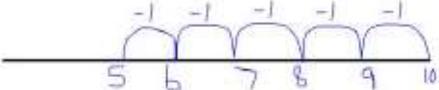
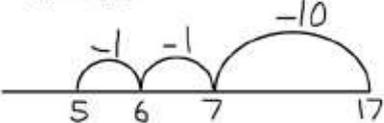
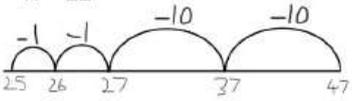
 <p style="text-align: center;">$20 + 3 = 23$</p>	<p>The children will move onto adding using an open number line to add a 1 digit number to a rounded 2 digit number e.g. $20 + 7 =$.</p>
 <p style="text-align: center;">$27 + 5 = 32$</p>	<p>When using this method securely, children move on to bridge 10 whilst still adding ones e.g. $27 + 5 =$</p>
 <p style="text-align: center;">$21 + 10 = 31$</p>	<p>Once the children can confidently add a 1 digit number to a 2 digit number they can move on to adding two 2 digit numbers. To make it simpler for them they should start by adding rounded tens e.g. $21 + 10$</p>
 <p style="text-align: center;">23 $20 + 3$</p>	<p>Extend by adding multiple tens e.g. $21 + 20$ Children will build on their number knowledge by partitioning 2 digit numbers into tens and ones so they are ready for the next step.</p> <p>The children must be confident in their understanding of place value before moving on.</p>
 <p style="text-align: center;">$21 + 12 = 33$</p>	<p>Adding two 2 digit numbers using an open number line using their prior knowledge of adding tens and ones. The children only need to partition the smaller number to add.</p>
<p>$48 + 16 = 64$ (bridging the 10)</p>	<p>When the children have secured this skill they can begin to add numbers that bridge through the next ten (use 100 squares etc to help with number knowledge).</p>
<p>Key Vocabulary Add, more, plus, and, make, altogether, total, equal to, equals, the same as, most, count on, number line, number sentence, tens, ones, partition, addition, <i>hundreds</i></p>	

Subtraction Year 2

Focus: Subtracting with two 2 digit numbers

Children will begin to count back using a blank number line to subtract. They will use these methods both written and mentally.

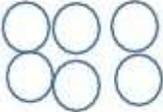
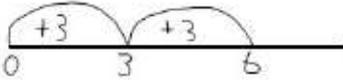
$$9 - 5 = 4$$

	<p>Once the children are confident using a tracked number line, they will be shown how to use a blank number line. They will start by subtracting ones in (backward) jumps of one.</p>
<p style="text-align: center;">$10 - 5 = 5$</p> 	<p>Children now bridge 10 when subtracting ones from a two digit number under 20.</p>
$\begin{array}{r} 12 \\ / \quad \backslash \\ 10 \quad 2 \end{array}$	<p>Partitioning is taught (or recapped) so that children can start to subtract two 2 digit numbers.</p>
<p style="text-align: center;">$17 - 12 =$</p> 	<p>Children are now ready to subtract tens and ones on an open number line. <i>Note: Jump large tens and small ones.</i> <i>Biggest number goes at the end of the Number line.</i> <i>Only the smaller number needs to be partitioned.</i></p>
<p style="text-align: center;">$47 - 22 =$</p> 	<p>Continue to increase difficulty by subtracting larger numbers with multiple tens. <i>Note: Work with numbers up to 100.</i></p>
<p>Key Vocabulary Equal to, take away, less, minus, subtract, difference between, how many more, how many fewer/less than, most, least, count back, how many left, count on, partition, tens, ones, <i>digit</i></p>	

Multiplication Year 2

Focus: Solve problems involving multiplication

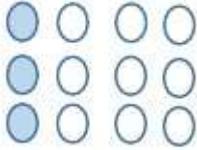
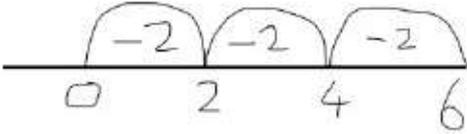
In year 2 children will move on from basic multiplication arrays and will be taught different strategies including repeated addition and mental methods.

<p>Throughout the year children should be working on learning their 2, 5 and 10x tables in a range of different ways.</p>	
<p>$3 \times 2 =$</p>  <p>$2 \times 3 =$</p>  <p>Group size x number of groups = product</p>	<p>Children will be shown that multiplication of two numbers can be done in any order (commutative) and will use arrays to represent this.</p> <p><i>Physical objects/drawings used to aid working out.</i></p>
 <p>$2 + 2 + 2 + 2 = 8$ $2 \times 4 = 8$</p>	<p>Repeated addition will be taught as another strategy to multiplication.</p> <p><i>Physical objects/drawings used to aid working out.</i></p>
<p>$3 \times 2 =$</p> 	<p>Repeated addition moves on to using an open number line.</p> <p><i>Group size x number of groups = product.</i></p>
<p>e.g $9 \times 4 =$ $7 \times 6 =$ $8 \times 9 =$</p>  <p>(Draw array /use open number line)</p>	<p>Children continue to master these strategies until they can confidently multiply a 1 digit number with a 1 digit number.</p>
<p>Key Vocabulary Groups of, lots of, times, array, altogether, multiply, count, multiplied by, repeated addition, column, row, <i>tens, ones, value</i></p>	

Division Year 2

Focus: Solve problems involving division

Children in year 2 will continue to work on basic division strategies and will learn that division is not commutative.

	<p>Children will consolidate their understanding of division as sharing using objects and visual representations.</p> <p>They will then move on to division as grouping using objects such as bead strings.</p>
	<p>Children will move on to recording by drawing arrays. For the example on the left they will start by drawing 3 rows and then keep adding one to each row until they get to 12. The number of columns gives them the answer.</p>
	<p>When the children are confident at using arrays to group for division, they will move onto using open number lines to do repeated subtraction.</p> <p><i>Note: Do not work with numbers that have remainders at this stage.</i></p>
<p>Key Vocabulary Share, share equally, one each, two each..., group, groups of, lots of, array, divide, divided by, divided into, division, grouping, number line,</p>	