



Year R Knowledge and Skills Progression

Focus: CPA Approach Concrete, Pictorial, Abstract

The calculation policy is divided into four sections: addition, subtraction, multiplication and division. At the start of each section, you will find an overview of the progression of skills.


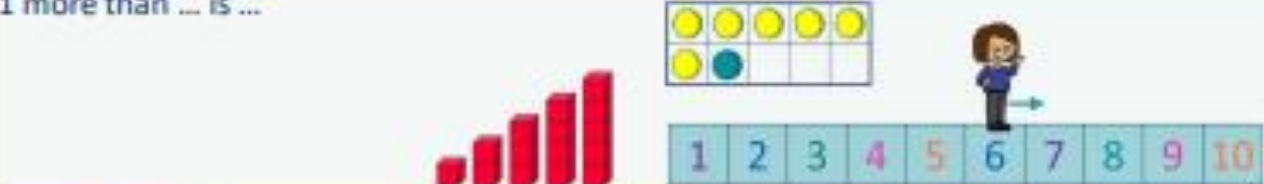


The calculation policy follows the same concrete, pictorial, abstract approach as our main schemes of learning. Where appropriate, sentence stems and key questions are included alongside the key representations, however in Early Years we adopt a practical approach to all learning first.

Progression of skills – Addition

Nursery	Reception
<ul style="list-style-type: none">• Subitise to 3• Count how many• Make numbers to 5• Add 1 more (through songs and rhymes)	<ul style="list-style-type: none">• Conceptually subitise to 5• 1 more• Notice the composition of numbers within 10• Combine 2 groups• Add more







Addition

<p>Reception</p>	<ul style="list-style-type: none"> • Have a deep understanding of numbers to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and some number bonds to 10, including double facts. 	
<p>Progression of skills</p>	<p>Key representations</p>	
<p>Conceptually subitise to 5</p> <p>Notice the parts that make up the whole.</p>	<p>What do you see? How do you see it?</p> 	
<p>1 more</p> <p>Continue to link to stories, songs and rhymes.</p>	<p>1 more than ... is ...</p> 	
<p>Notice the composition of numbers within 10</p> <p>Link to stories, songs and rhymes.</p>	<p>How many...? How many...? How many altogether?</p> 	<p>How many ways can you make...?</p> 



Addition

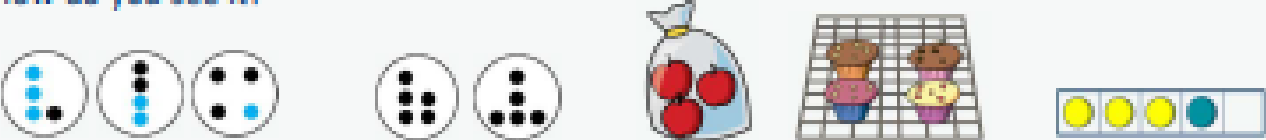
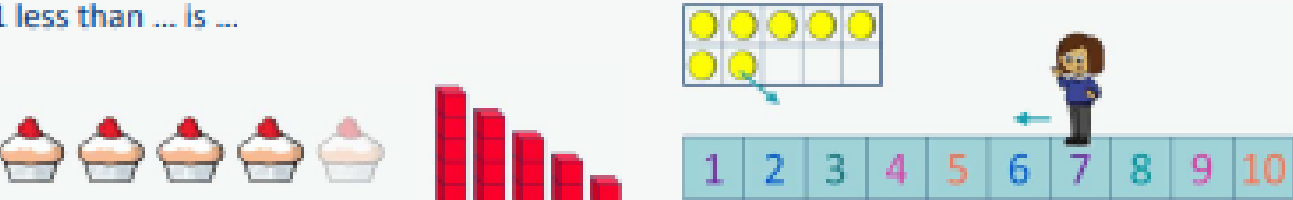
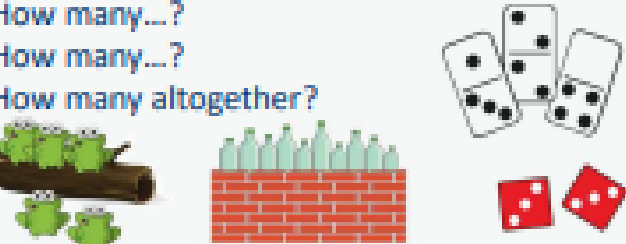
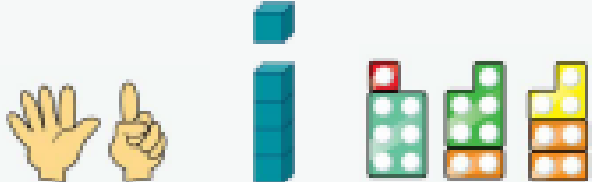
Progression of skills	Key representations	
<p>Combine 2 groups</p> <p>2 groups are combined to find the total.</p>	<p>There are There are There are altogether.</p> 	<p>.... and make</p> 
<p>Add more</p> <p>A quantity is increased.</p>	<p>First... Then.... Now....</p> 	<p>I have I add more. Now I have....</p> 

Progression of skills – Subtraction





Nursery	Reception
<ul style="list-style-type: none">• Subitise to 3• Count how many• Make numbers to 5• Take 1 away (through songs and rhymes)	<ul style="list-style-type: none">• Conceptually subitise to 5• 1 less• Notice the composition of numbers within 10• Partition• Take away



Subtraction

<p>Reception</p>	<ul style="list-style-type: none"> • Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (and some subtraction facts) and some number bonds to 10, including double facts. 	
<p>Progression of skills</p>	<p>Key representations</p>	
<p>Conceptually subitise to 5</p> <p>Notice the parts that make up the whole.</p>	<p>What do you see? How do you see it?</p> 	
<p>1 less</p> <p>Continue to link to stories, songs and rhymes.</p>	<p>1 less than ... is ...</p> 	
<p>Notice the composition of numbers within 10</p> <p>Link to stories, songs and rhymes.</p>	<p>How many...? How many...? How many altogether?</p> 	<p>How many ways can you make...?</p> 

Subtraction

Progression of skills	Key representations	
<p>Partition</p> <p>Using objects, explore different ways to partition a number into 2 or more parts.</p>	<p>There are ... altogether. I can see ... here and ... there.</p> 	<p>... and ... make ...</p> 
<p>Take away</p> <p>A quantity is reduced.</p>	<p>First... Then... Now...</p> 	<p>I have ... I take ... away Now I have ...</p> 

Progression of skills – Multiplication

Nursery	Reception
<ul style="list-style-type: none">Continue with counting and subitising skills as a foundation for later work on equal groups. (see addition and subtraction sections)	<ul style="list-style-type: none">Double to 10Make equal groups



Multiplication


<p>Reception</p>	<ul style="list-style-type: none"> • Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and some number bonds to 10, including double facts. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
<p>Progression of skills</p>	<p>Key representations</p>
<p>Double to 10</p> <p>Prompt children to notice that double means twice as many and to notice that there are two equal groups.</p>	<p>Double ... is is double ...</p>
<p>Make equal groups</p> <p>Provide opportunities to make equal groups when tidying up or during snack time. Encourage children to check that each group has the same amount.</p>	<p>There are ... groups of ... There are ... altogether.</p>

Progression of skills – Division

Nursery	Reception
<ul style="list-style-type: none">Continue with counting and subitising skills as a foundation for later work on equal groups. (see addition and subtraction sections)	<ul style="list-style-type: none">SharingGrouping



Division

<p>Reception</p>	<ul style="list-style-type: none"> • Have a deep understanding of number to 10, including the composition of each number. • Subitise (recognise quantities without counting) up to 5 • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and some number bonds to 10, including double facts. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
<p>Progression of skills</p>	<p>Key representations</p>
<p>Sharing</p> <p>Provide practical activities such as sharing items during snack time. Encourage children to check whether items have been shared fairly (equally).</p>	<p>There are ... altogether. They are shared equally between ... groups.</p> 
<p>Grouping</p> <p>Provide opportunities to make equal groups when tidying up or during snack time. Encourage children to check that each group has the same amount.</p>	<p>There are ... groups of ... There are ... altogether.</p> 