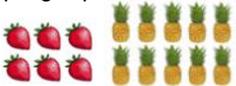
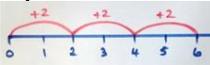
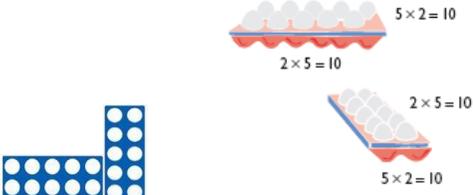
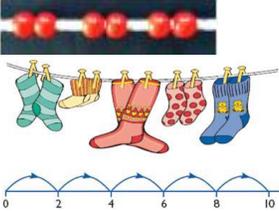
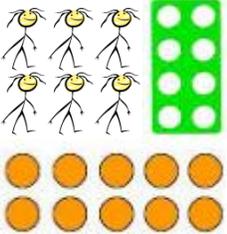
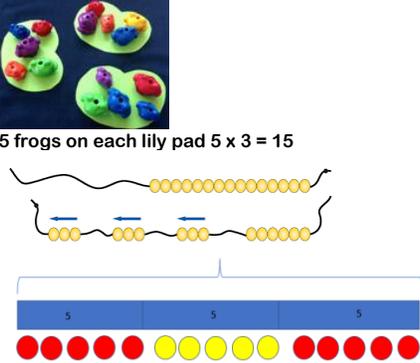
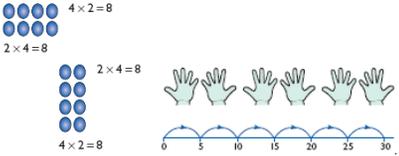
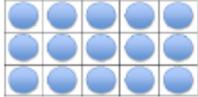




Multiplication KS1

<p>EYFS</p>	<p>Reception: ELG 2018 Numbers to 20: place them in order and say which number is one more or one less than a given number Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer They solve problems, including doubling, halving and sharing.</p> <p>Exceeding: Estimation and checking quantities by counting up to 20 Combining groups of 2, 5 or 10 or sharing into equal groups</p>			
<p>Year</p>	<p>1</p>	<p>2</p>		
<p>Layers of vocabulary</p>  <p>Appendix 1a Beck's Tiers of Vocabulary</p> <p>Appendix 1b: Vocabulary book</p>	<p>Basic to subject specific (Beck's Tiers): count in ones, twos... tens... array, groups of, equal groups odd, even</p> <p>Instructional vocabulary: carry on, continue repeat what comes next? find, choose, collect use, make, build tell me, describe, pick out, talk about, explain, show me, read, write, record</p>		<p>Basic to subject specific (Beck's Tiers): lots of, groups of x, times, multiply, multiplied by multiple of once, twice, three times... ten times... times as (big, long, wide... and so on) repeated addition array row, column double, halve share, share equally</p> <p>Instructional vocabulary: carry on, continue, repeat, what comes next? predict describe the pattern describe the rule find, find all, find different, investigate</p>	
<p>NC 2014</p>	<p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p>		<p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.</p>	
	<p>Concrete, pictorial, abstract</p>		<p>Concrete, pictorial, abstract</p>	
<p>Developing Conceptual/ Procedural Understanding</p>	<p>Grouping</p>  <p>2 frogs on each lily pad</p> <p>GROUPING ITP Pictures to show 2 groups of 3 or 3 groups of 2 etc.</p>	<p>Arrays (rectangular arrangements to show equal groups)</p> 	<p>Repeated addition</p>  <p>Introduce the x symbol once repeated addition is understood.</p>	<p>Commutativity</p>  <p>$5 \times 2 = 10$ $2 \times 5 = 10$ $5 \times 2 = 10$ $2 \times 5 = 10$</p> <p>$5 \times 2 = 2 \times 5$</p>

Multiplication KS1

	<p>Doubles</p> 		<p>Grouping</p>  <p>5 frogs on each lily pad $5 \times 3 = 15$</p> <p>Building tables</p>  <p>Build tables using counting stick- forwards and backwards and with missing jumps</p>	 <p>$4 \times 2 = 8$ $2 \times 4 = 8$ $4 \times 2 = 8$</p> <p>$5 + 5 + 5 + 5 = 30$ $5 \times 6 = 30$ 5 multiplied by 6 6 groups of 5 6 hops of 5</p> <p>Decision making How many number sentences can you write to describe this array? Can you use addition, multiplication and division?</p>  <p>Explain your answers.</p>
With jottings... or in your head	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.		Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and \times and \div facts, including problems in contexts.	
Known facts	Count in multiples of twos, fives and tens.		Recall and use \times and \div facts for the 2, 5 and 10 \times tables, including recognising odd and even numbers.	
Checking strategies	Recognise double numbers are always even.		Connect the 10x table to place value and the 5x table to the divisions on a clock face. Begin to use other multiplication tables (beyond $\times 2$, $\times 5$ and $\times 10$) and recall multiplication facts. Use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$). To know that '=' means 'the same as' and can appear in a different place within a calculation.	
Essential Knowledge	Count in 2s	Doubles up to 10	2 \times table	Doubles up to 20
	Count in 10s	Double multiples of 10	10 \times table	Doubles of multiples of 5
	Count in 5s	Count in 2s, 5s and 10s	5 \times table	Count in 3s