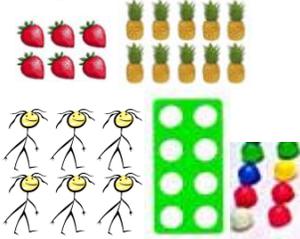
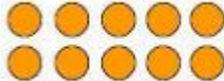
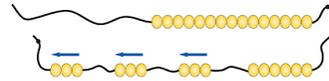
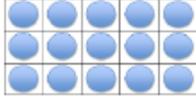
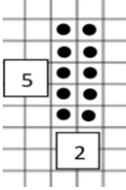
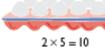


**John Randall Primary School and Nursery
Multiplication Key Stage 1 Calculation Policy**



<p>EYFS</p> <p>Appendix 2: Pupil target grids</p>	<p>Reception: ELG 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 style="text-align: center;">Year</p>	<p>1</p>	<p>2</p>
<p>Layers of vocabulary</p>  <p>Appendix 1a Beck's Tiers of Vocabulary 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, find, choose, collect, use, make, build, tell me, describe, pick out, talk about, explain, show me, read, write, record, What comes next?</p> <p>Language of tests and questions match, tick, draw, complete, write, circle, share, jumps, count on, use a ruler</p>	<p>Basic to subject specific (Beck's Tiers): lots of, groups of \times, 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, predict, describe the pattern, describe the rule, find, find all, find different, investigate, What comes next?</p> <p>Language of tests and questions tick, match, count, tick two, circle, write, draw, complete, use these numbers, shade, write, make, choose, circle the three, complete, write, tick all, complete the number sentence, put a digit, How many...?</p>
<p>NC 2014</p>	<p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial</p>	<p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals</p>

	representations and arrays with the support of the teacher.		(=) signs.	
Developing Conceptual/ Procedural Understanding	<p>Grouping</p>  <p>2 frogs on each lily pad</p> <p>GROUPING ITP</p> <p>Pictures to show 2 lots of 3 or 3 lots of 2 etc.</p> <p>Doubles</p>  <p>2 4 6</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>Grouping</p>  <p>5 frogs on each lily pad $5 \times 3 = 15$</p> <p>$5 + 5 + 5 = 15$</p> <p>$3 + 3 + 3 + 3 + 3 = 15$</p> <p>Arrays</p>  	<p>Commutativity</p>  <p>$4 \times 2 = 8$</p>  <p>$2 \times 4 = 8$</p>   <p>$5 + 5 + 5 + 5 + 5 = 30$</p> <p>$5 \times 6 = 30$</p> <p>5 multiplied by 6</p> <p>6 groups of 5</p> <p>6 hops of 5</p> <p>Decision making</p> <p>How many number sentences can you write to describe this array? Can you use addition, multiplication and division?</p> 
	 		 <p>$5 \times 2 = 10$</p> <p>$2 + 2 + 2 + 2 + 2 = 10$</p> <p>$5 + 5 = 10$</p>	<p>Explain your answers.</p>  <p>$5 \times 2 = 2 \times 5$</p>   <p>$5 \times 2 = 10$</p> <p>$2 \times 5 = 10$</p>  <p>$2 \times 5 = 10$</p> <p>$5 \times 2 = 10$</p>
Known facts	Count in multiples of twos, fives and tens.		Recall and use x and ÷ facts for the 2, 5 and 10 x tables, including recognising odd and even numbers.	
Essential Knowledge	Count in 2s	Doubles up to 10	2 x table	Doubles up to 20
	Count in 10s	Double multiples of 10	10 x table	Doubles of multiples of 5
	Count in 5s	Count in 2s, 5s and 10s	5x table	Count in 3s