




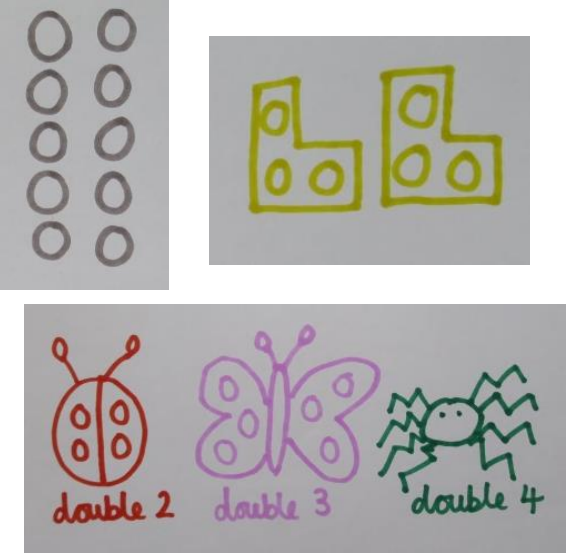
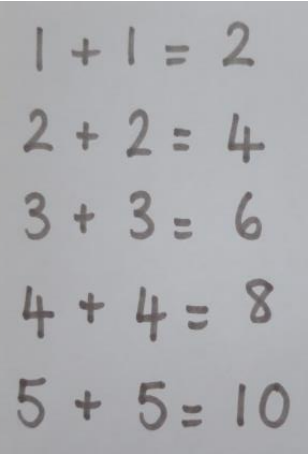

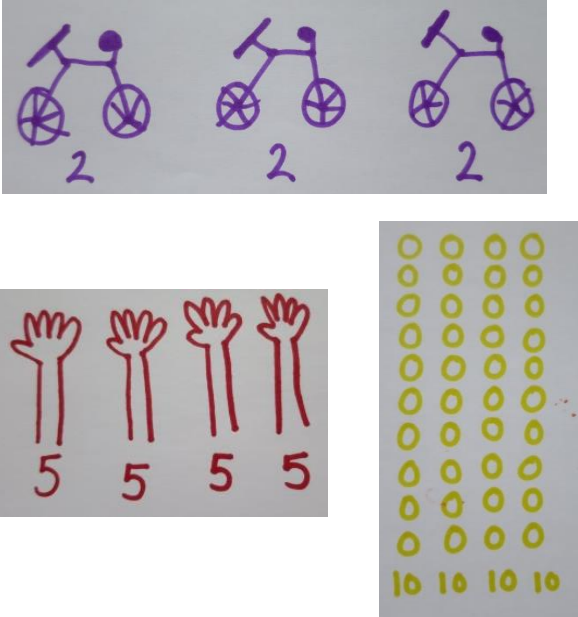
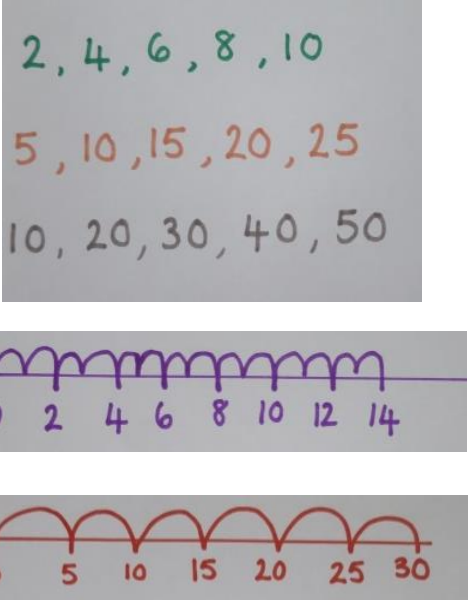
The Oaks CE Learning Federation  
 Mathematics Calculation Policy  
**Multiplication** Progression - using a CPA Approach

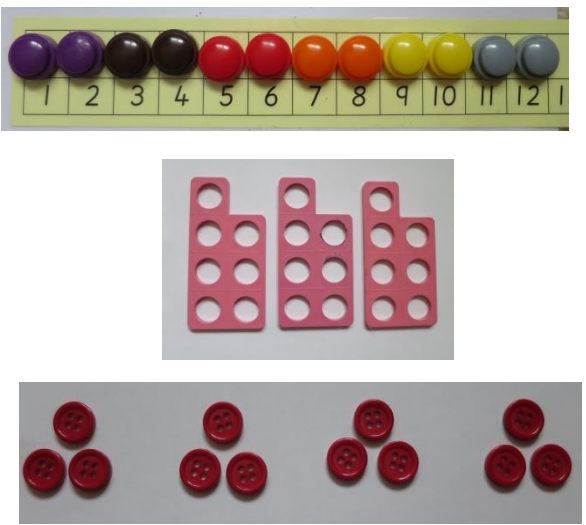
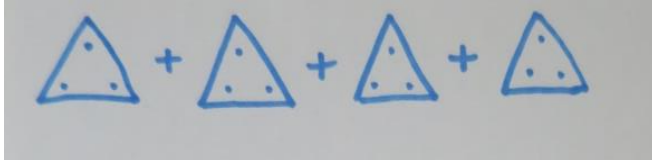
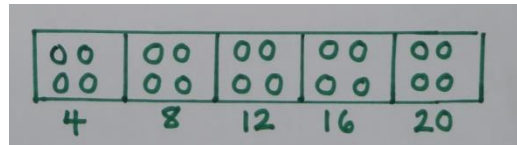
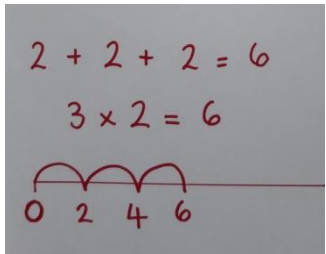
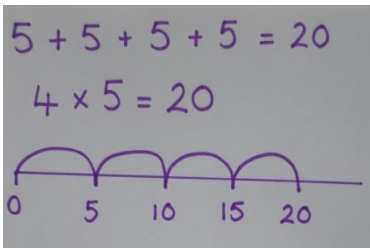

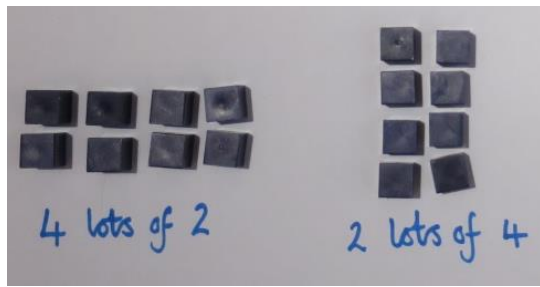
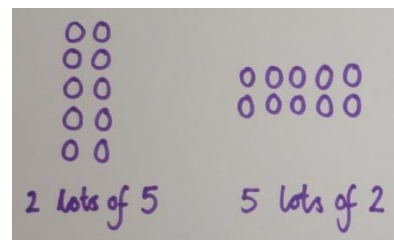
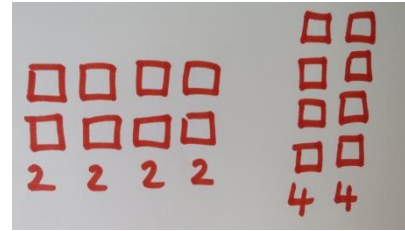
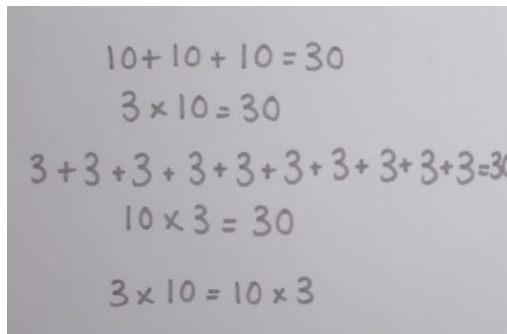


EYFS Framework	<p>ELG Numerical Patterns: Children at the expected level of development will:</p> <ul style="list-style-type: none"> <li>Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li> </ul>
National Curriculum Year 1	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>solve one-step problems involving <b>multiplication</b> and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</li> </ul>
National Curriculum Year 2	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>recall and use <b>multiplication</b> and division <b>facts</b> for the <b>2, 5 and 10</b> multiplication tables, including recognising odd and even numbers</li> <li>calculate mathematical statements for <b>multiplication</b> and division within the multiplication tables and write them using the <b>multiplication</b> (<math>\times</math>), division (<math>\div</math>) and equals (<math>=</math>) signs</li> <li>show that <b>multiplication</b> of two numbers can be done in any order (commutative) and division of one number by another cannot</li> <li>solve problems involving <b>multiplication</b> and division, using materials, arrays, <b>repeated addition</b>, mental methods, and <b>multiplication</b> and division facts, including problems in context.</li> </ul>

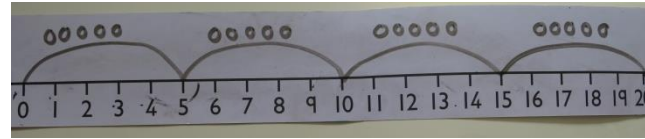
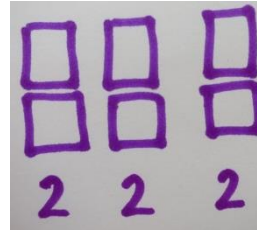
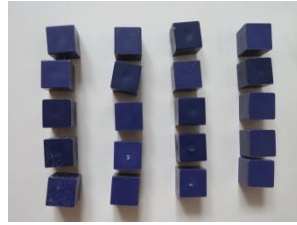
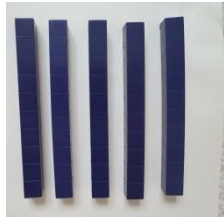
<p><b>Key Language:</b> double, times, multiplied by, the product of, groups of, lots of, equal groups</p>
<p><b>Key Apparatus:</b> Numicon, interlocking cubes, objects, coins, number tracks, number lines</p>

	Concrete	Pictorial	Abstract
<p data-bbox="103 140 293 320"><i>Step 1-</i> Recognising equal groups in real objects or pictures</p> <p data-bbox="103 730 293 911">Making equal groups using objects or drawing own pictures</p>	<p data-bbox="383 150 920 173">We encourage exploring objects from the natural world</p>       	<p data-bbox="1039 105 1420 129"><i>(Mostly applicable to EYFS / Y1)</i></p> <p data-bbox="927 150 1503 173">and common everyday objects as well as school resources.</p>     	<p data-bbox="1666 150 2040 173">Abstract is not applicable at this stage</p>

	Concrete	Pictorial <i>(Mostly applicable to Y1)</i>	Abstract
Step 2- Doubling			 $1 + 1 = 2$ $2 + 2 = 4$ $3 + 3 = 6$ $4 + 4 = 8$ $5 + 5 = 10$
Step 3- Counting in multiples (mainly 2, 5 and 10s)			 $2, 4, 6, 8, 10$ $5, 10, 15, 20, 25$ $10, 20, 30, 40, 50$

	Concrete	Pictorial	Abstract
	(Mostly applicable to Y1/Y2)		
<p>Step 4- Repeated grouping/ addition</p>		 	 
	(Mostly applicable to Y2)		
<p>Step 5- Using arrays Understanding commutative multiplication</p> <p>“2 lots of 5 is the same as 5 lots of 2.”</p>	 	 	

Step 6-  
recall and use  
multiplication  
facts



$$3 \times 2 = 6$$
$$4 \times 5 = 20$$
$$5 \times 10 = 50$$