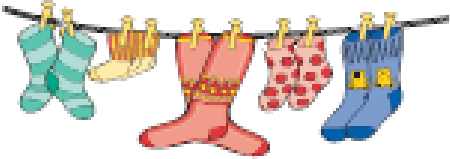

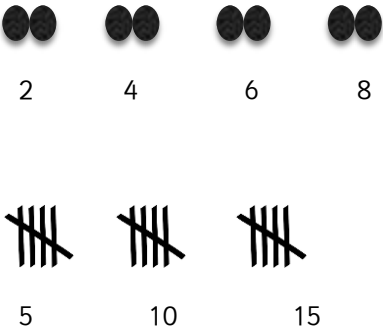
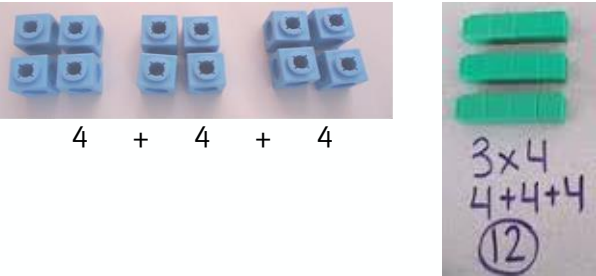





Abbey C of E Infant School Calculation Policy

Multiplication- Key language which should be used: double, times, multiplied by, multiply, the product of, groups of, lots of, 'is equal to' 'is the same as', array, repeated addition, multiplication tables

<p>Skip counting in 10s, 5s, 2s and then 3s</p>	<p>How many socks on the washing line?</p>  <p>How many fingers?</p> 		<p>2, 4, 6, ____, 10</p> <p>25, 30, ____, 40, 45</p>						
<p>Repeated grouping/repeated addition</p> <p>(does not have to be restricted to cubes)</p> <p>3 x 4 or 3 lots of 4</p>		<p>Children to represent the practical resources in a picture e.g.</p> <p>XX XX XX XX XX XX</p> <p>Use of a bar model for a more structured method</p> 	<table border="1"> <tr> <td colspan="3" style="text-align: center;">?</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">4</td> <td style="text-align: center;">4</td> </tr> </table> <p>4 + 4 + 4</p> <p>3 x 4</p>	?			4	4	4
?									
4	4	4							

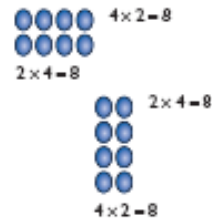
Use arrays to illustrate commutativity

(counters and other objects can also be used)

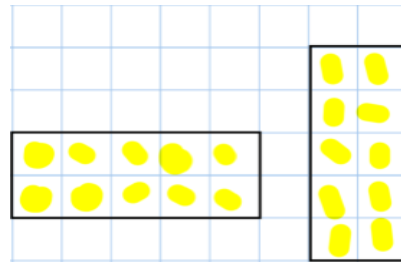
$2 \times 5 = 5 \times 2$

Children should understand that multiplication is commutative, the order of the multiplication does not affect the answer

$2 \times 5 = 5 \times 2$



Children can draw dots or use stickers to represent an array



Children to be able to use an array to write a range of calculations e.g.

- $2 \times 5 = 10$
- $5 \times 2 = 10$
- $2 + 2 + 2 + 2 + 2 = 10$
- $5 + 5 = 10$

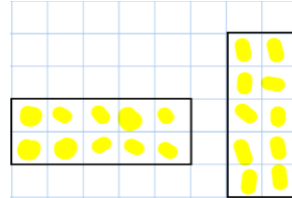
double 5

5 doubled

Division should be taught alongside or after multiplication so children can see the links between multiplication and division

This can be illustrated in arrays and the Part- whole method / Bar model

Links should also be made with fractions.



$2 \times 5 =$

10	
5	5

$10 \div 2 = 5$

10				
2	2	2	2	2

$5 \times 2 =$

$10 \div 5 = 2$

and later... links to fractions

half of 10 is 5

Always use missing number problems at all stages of learning



$? \times 4 = 8$



8			
2	2	2	2

$? \times 4 = 8$

$8 \div 4 = ?$

Fluency variation, different ways to ask children to solve: 5×3

With the counters, prove that $5 \times 3 = 15$

Tom saved £3 each week. How much did he save in 5 weeks?

Mai had to swim 3 lengths, 5 times a week. How many lengths did she swim in one week?

What's the calculation? What's the answer? How many different calculations can you write for this array?

$3 \times 5 =$

$? = 3 \times 5$

?		
5	5	5

$3 \times 5 = 15$

Write a division sentence using the same numbers.