

Calculation Policy: Multiplication

Key language: double, times, multiplied by, the product of, groups of, lots of, equal groups

	Concrete	Pictorial	Abstract
<p><b>Year 1</b> Doubling.</p>	<p>Use practical activities to show how to double a number.</p> <p>double 4 is 8 <math>4 \times 2 = 8</math></p>	<p>Draw pictures to show how to double a number.</p> <p>Double 4 is 8</p>	<p>Partition a number and then double each part before recombining it back together.</p>
<p><b>Year 1</b> Counting in multiples.</p>	<p>Count in multiples supported by concrete objects in equal groups.</p>	<p>Use a number line or pictures to continue support in counting in multiples.</p>	<p>Count in multiples of a number aloud. Write sequences with multiples of numbers.</p> <p><b>2, 4, 6, 8, 10</b></p> <p><b>5, 10, 15, 20, 25, 30</b></p>
<p><b>Year 2</b> Repeated groups/ repeated addition.</p>	<p><b>Repeated grouping/repeated addition</b> <math>3 \times 4</math> <math>4 + 4 + 4</math> There are 3 equal groups, with 4 in each group.</p>	<p>Children to represent the practical resources in a picture and use a bar model.</p>	<p><math>3 \times 4 = 12</math></p> <p><math>4 + 4 + 4 = 12</math></p>
<p><b>Year 2</b> Number lines to show repeated groups</p>	<p><b>Number lines to show repeated groups-</b> <math>3 \times 4</math> Cuisenaire rods can be used too.</p>	<p>Represent this pictorially alongside a number line e.g.:</p>	<p>Abstract number lines showing three jumps of four.</p> <p><math>3 \times 4 = 12</math></p>
<p><b>Year 2</b> Arrays showing commutative multiplication.</p>	<p><b>Use arrays to illustrate commutativity</b> counters and other objects can also be used. <math>2 \times 5 = 5 \times 2</math></p> <p>2 lots of 5      5 lots of 2</p>	<p>Children to represent the arrays pictorially.</p>	<p>Children to be able to use an array to write a range of calculations e.g.</p> <p><math>10 = 2 \times 5</math> <math>5 \times 2 = 10</math> <math>2 + 2 + 2 + 2 = 10</math> <math>10 = 5 + 5</math></p>