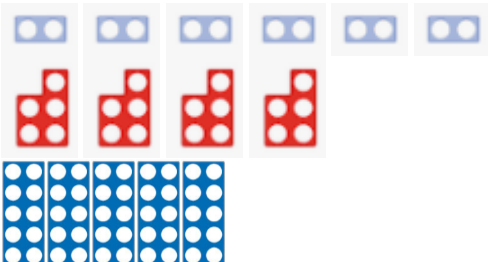
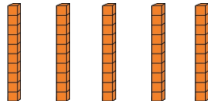

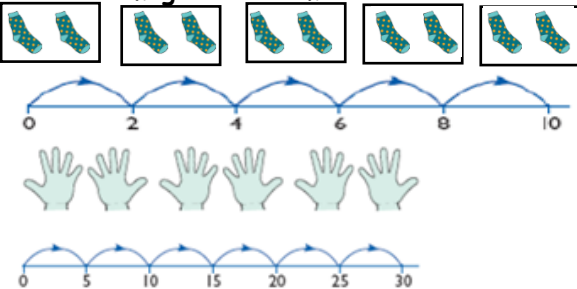



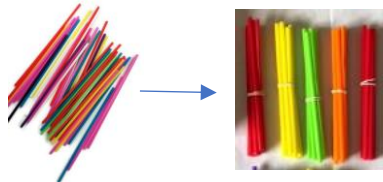


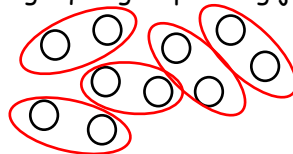
YEAR 1	Multiplication	
Vocabulary: ones, groups, lots of, doubling, repeated addition, array, row, column, equal groups of, lots of, times, pattern, times as (big, long, wide etc), longer, bigger, higher.		
Concrete	Pictorial	Abstract
<p>Using concrete objects to reinforce counting and equal groups of.</p> <p>Counting in 2s, 5s and 10s:</p> <p>Numicon</p>  <p>Cubes</p>  <p>Arrays</p> 	<p>Counting in 2s, 5s and 10s:</p> <p>Pictorial images and number lines</p>  <p>Arrays:</p>  <p>$5 + 5 + 5$</p>  <p>$2 + 2 + 2 + 2$</p> 	<p>Written</p> <p>No formal written method. Children record their mathematics using pictorial representations, arrays, number lines and mathematical statements.</p>

Grouping equally:

Organising objects into equal groups to support counting in 2s, 5s and 10s.

**Grouping equally:**

Making equal groups using jottings.



$$5 \times 2 = 10$$

5 equal groups of 2

$2 + 2 + 2 + 2 + 2$ (repeated addition)

Mental methods**Counting:**

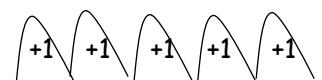
Rote count in 2s, 5s or 10s up to 100.

Doubling:**Numicon****Cubes:****Tens frame:****Doubling:****Pictorial images:**

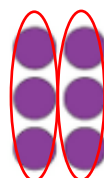
Six spots on each wing. How many altogether?

**Number lines:**

+5



5 6 7 8 9 10

Arrays:

$$3 + 3$$

Doubling:

Instantly recall doubles to 20

$$1 + 1 \quad 6 + 6$$

$$2 + 2 \quad 7 + 7$$

$$3 + 3 \quad 8 + 8$$

$$4 + 4 \quad 9 + 9$$

$$5 + 5 \quad 10 + 10$$