
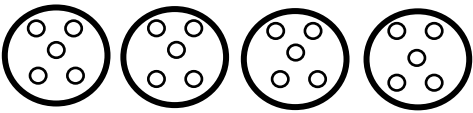
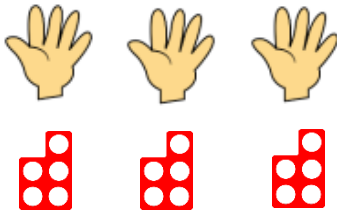



## YEAR 2

## Multiplication (2, 5 and 10 times table, rote count only in 3s)

**Vocabulary:** Multiplication, multiply, multiple, times, equal groups of, lots of, repeated addition, equal, same, number sentence, calculation, number, numeral, digit, pattern, commutativity, inverse, array, row, column, multiplication tables/facts, once, twice, three, ten...times a big, repeated addition.

See Year 1 for doubles.

Concrete	Pictorial	Abstract
<p><u>Understand equal groups</u></p>  <p>There are 4 equal groups of 5 pencils.</p>	<p><u>Understand equal groups</u></p>  <p>4 groups of 5.</p>	<p>Written mathematical statements and calculations to be shown alongside pictorial representations. However, see below for mental recall.</p> <p>Children to <b>instantly</b> recall the 2, 5 and 10 times tables.</p> <p>Children to understand, <b>show</b> and <b>use</b> the <b>inverse</b> relationship between <b>multiplication</b> and <b>division</b> e.g.</p>
<p><u>Add equal groups: repeated addition</u></p> <p>How many fingers altogether?</p>  <p><math>5 + 5 + 5 = 15</math></p>	<p><u>Add equal groups: repeated addition</u></p> <p><math>5 + 5 + 5 = 15</math></p> 	<p> <math>4 \times 10 = 40</math>      <math>4 \times \square = 40</math>  <math>10 \times 4 = 40</math>      <math>\square \times 10 = 40</math>  <math>40 \div 10 = 4</math>      <math>40 \div \square = 40</math>  <math>40 \div 4 = 10</math>      <math>\square \div 4 = 40</math> </p> <p><u>Counting on</u>  <math>7 \times 5 =</math>            By counting on in the fives pattern using fingers to keep track.  <u>Using doubling and halving:</u> </p>

### Counting on:



$$5 + 5 + 5 = 15$$

### Jottings

$$5 \times 3 = 15$$



Know corresponding halves of doubles of all numbers to 15 and doubles of all numbers of multiples of 5 to 50.

$$14 \div 2 = 7 \text{ (by recalling the doubles first)}$$

### Using known facts and place value:

$$\text{If } 4 \div 2 = 2$$

$$\text{Then } 40 \div 2 = 20$$

### Arrays

There are 2 apples in each row.

There are 3 rows.

$$2 + 2 + 2 = 6$$

There are 6 apples altogether.



### Arrays

There are 2 in each row.

There are 3 rows.

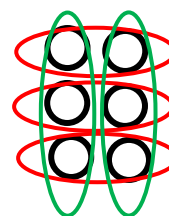
3 lots of 2.

$$2 + 2 + 2 = 6$$

$$3 \times 2 = 6$$

$$2 \times 3 = 6$$

(commutativity)



### Recognise odd and even numbers:

Explain why 15 is an odd number

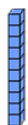
### Groups of



10

10

10



$$3 \text{ groups of } 10 = 30$$

$$3 \text{ lots of } 10 = 30$$

$$3 \times 10 = 30$$

### Jottings: preferred method



$$3 \times 10 = 30$$

### Bar model:

30		
10	10	10