

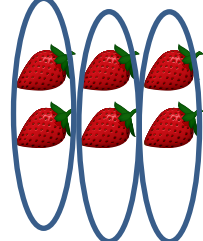
## MULTIPLICATION GUIDELINES

Year One

Solve one-step problems by calculating the answer using concrete objects, pictorial representations and arrays

### Arrays

$$3 \times 2 =$$



(3 lots of 2)

### Repeated addition

$$3 \times 2$$

$$2 + 2 + 2$$

### Practical resources

Counting in 2s e.g. counting socks...

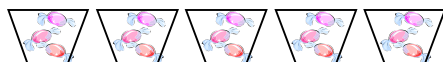
Counting in 5s e.g. counting fingers...

Counting in 10s e.g. toes...

### Pictures / marks

There are 3 sweets in one bag.

How many sweets are there in 5 bags?



Year Two

Show that multiplication of 2 numbers can be done in any order (commutative)

### x = signs and missing numbers

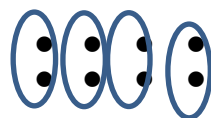
$$7 \times 2 = \square \qquad \square = 2 \times 7$$

$$7 \times \square = 14 \qquad 14 = \square \times 7$$

$$\square \times 2 = 14 \qquad 14 = 2 \times \square$$

$$\square \times \nabla = 14 \qquad 14 = \square \times \nabla$$

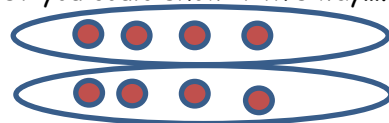
### Arrays



(4 lots of 2)

$$4 \times 2$$

Or you could show it this way.....



$$2 \times 4$$

(2 lots of 4)

### Repeated addition

$$4 \times 2 =$$

$$2 + 2 + 2 + 2$$

Year Three

Write and calculate mathematical statements using the multiplication tables that they know, including for **two-digit numbers times one-digit numbers**, using mental and progressing to formal written methods

### Partitioning

$$23 \times 3 = 69$$

$$20 \times 3 = 60$$

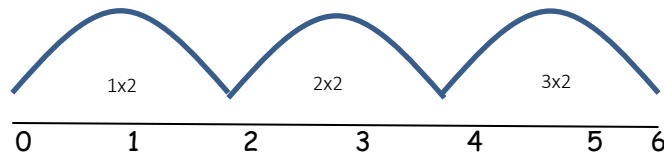
$$3 \times 3 = 9$$

(place value key)

### Column multiplication

Columns should be labelled and multiplication sign is on RHS.

$$\begin{array}{r} \text{TU} \\ 32 \\ \underline{3} \times \\ 96 \end{array}$$

	<p><b><u>Number line</u></b></p> <p><math>3 \times 2 =</math></p> 	
<p><b>Mental calculations</b></p>	<p><b>Mental calculations</b></p>	<p><b>Mental calculations</b></p>
<p><b>Times table expectations</b>  X2  x5  x10</p>	<p><b>Times table expectations (with related division facts)</b>  X2  x5  x10</p> <p><b>Odd/even numbers</b>  Count in 2s to identify odd and even numbers</p>	<p><b>Times table expectations (with related inverse facts)</b>  X3  x4  x8</p> <p><b><u>Place Value</u></b>  X 2 digit numbers by 10 and 100</p>