

YEAR 2

Multiplication (2, 5 and 10, 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

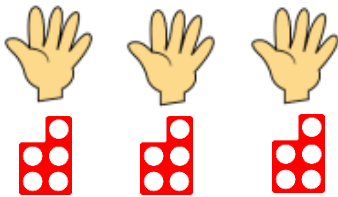
Understand equal groups



There are 4 equal groups of 5 pencils.

Add equal groups: repeated addition

How many fingers altogether?



$$5 + 5 + 5 = 15$$

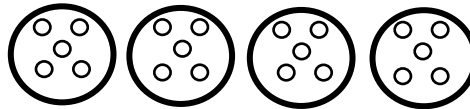
Counting on:



$$5 + 5 + 5 = 15$$

Pictorial/jottings

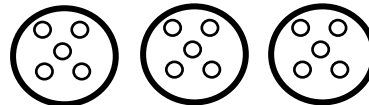
Understand equal groups



There are 4 equal groups of 5.

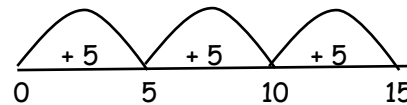
Add equal groups: repeated addition

$$5 + 5 + 5 = 15$$



Counting on:

$$3 \times 5 = 15$$



Abstract

No formal written method

Mental

Children to **instantly** recall the 2, 5 and 10 times tables.

Children to understand, **show** and **use** the **inverse** relationship between **multiplication** and **division** e.g.

$$4 \times 10 = 40$$

$$4 \times \square = 40$$

$$10 \times 4 = 40$$

$$\square \times 10 = 40$$

$$40 \div 10 = 4$$

$$40 \div \square = 40$$

$$40 \div 4 = 10$$

$$\square \div 4 = 40$$

Counting on

$$7 \times 5 =$$

By counting on in the fives pattern using fingers to keep track.

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.

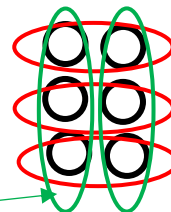
3 lots of 2.

$$\underline{2} + \underline{2} + \underline{2} = \underline{6}$$

$$3 \times 2 = 6$$

$$2 \times 3 = 6$$

(commutativity)



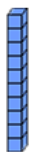
Groups of



10

10

10



3 equal groups of 10 = 30

3 lots of 10 = 30

$$3 \times 10 = 30$$

Jottings



$$3 \times 10 = 30$$

(3 equal groups of 10)

Bar model: Visual representation

30		
10	10	10