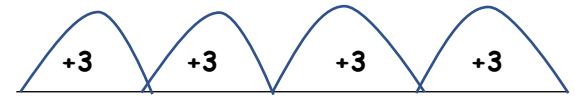
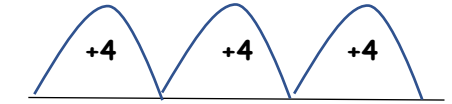
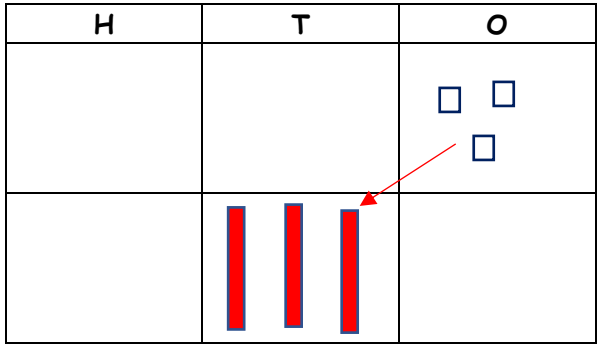
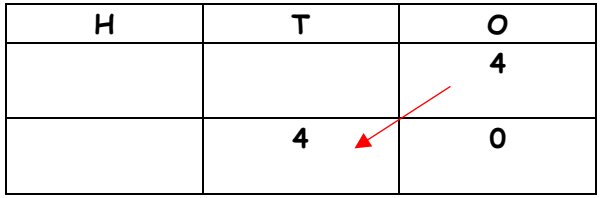
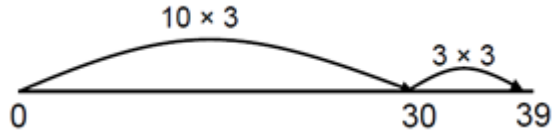
YEAR 3	Multiplication (2, 5, 10, 3, 4, 8)	
Vocabulary: partition, inverse, product, scaling, equal groups of; lots of, array, multiply, multiplied by, times (see previous year groups)		
Concrete	**Pictorial**	**Abstract**
Multiplication tables: (2, 5, 10, 3, 4, 8) 4 x 3 3 x 4 	**Multiplication tables:**  	**Multiplication tables:** (instant mental recall)
X10 and X100 10 x 3  (Move 2 places when x 100) Also show 2 digit number x 10 e.g. 34 x 10.	**X10 and X100** 10 x 4  (Move 2 places when x 100)	No written method – leads to a mental method.

Counting on:
(or diennes/numicon/place value counters)
13 x 3

30p 3p 3p 3p = 39p

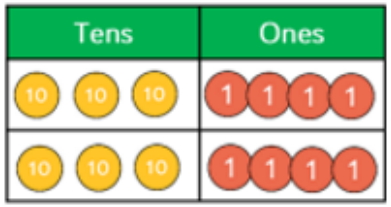
Counting on:
13 x 3



May count on in 1 x 3 instead of 3 x 3 to start.

Counting on:

2 digit x 1 digit no exchanging:
34 x 2 = 68
Using diennes or place value counters



2 digit x 1 digit no exchanging:
34 x 2 = 68

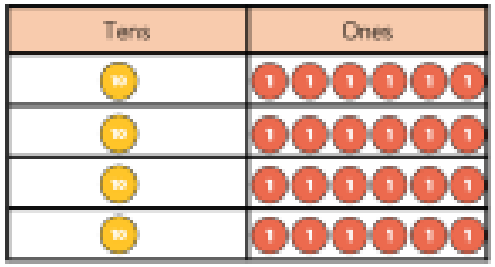
Tens	Ones
|||	○ ○ ○ ○
|||	○ ○ ○ ○

2 digit x 1 digit no exchanging:
Written – leading to a mental method.

34 x 2 = 68

30 x 2 = **60**
4 x 2 = **8**
60 + 8 = 68

2 digit x 1 digit exchanging:
16 x 4



2 digit x 1 digit exchanging:
16 x 4

Tens	Ones
	○ ○ ○ ○ ○ ○
	○ ○ ○ ○ ○ ○
	○ ○ ○ ○ ○ ○
	○ ○ ○ ○ ○ ○

2 digit x 1 digit exchanging:
(Expanded method)

16
x 4
24 (4 x 6)
40 (4 x 10)
64

Alternative grid method (if needed)

✖	20	6	
5	100	30	= 130

Mental methods

Instantly recall the multiplication tables for the 2, 5, 10, 3, 4 and 8 times table by the end of year 3.

X10 and x 100:
10 x 5 = 50
10 x 34 = 340
100 x 3 = 300

Using known facts and place value:
If 2 x 3 = 6
Then 20 x 3 = 60; 2 x 30 = 60; 20 x 30 = 600

Doubling:
Recall doubles of all numbers to 20, doubles of multiples of 5 to 100 and doubles of multiples of 100 to 500

24 x 2 = 48
20 x 2 = **40**
4 x 2 = **8**
40 + 8 = **48**

Doubling again (x4 and x8)
Use doubling to connect 2, 4 and 8 multiplication tables
7 x 4 = **28**
7 x 2 = **14**
14 x 2 = 28

7 x 8 = **56**
7 x 2 = **14**
14 x 2 = **28**
28 x 2 = 56

Partitioning:
No exchanging
32 x 3
30 x 3 = **90**
2 x 3 = **6**
90 + 6 = 96

Continue to understand the inverse relationship between multiplication and division

Write the related number sentences
6 x 3 = 18 3 x 6 = 18
18 ÷ 3 = 6 18 ÷ 6 = 3

Use this knowledge to solve missing number problems involving multiplication.

3 x ___ = 15 24 ÷ ___ = 8
___ ÷ 4 = 5