

YEAR 2

Addition

Vocabulary:

Addition, add, plus, altogether, count on, equals, in total, in all, same as, whole, part, number bonds, number sentence, calculation, number, numeral, digit (one-digit, two-digit), odd, even, pattern, tens, ones, partition, commutativity, jottings. (see previous year groups)

Concrete

Pictorial

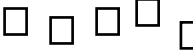
Abstract

Children need to be secure in number bonds to 10 and 20. See Year 1 addition policy.

Adding 2 digit numbers + multiples of 1 and 10

No exchanging (diennes)

$$32 + 5 = 37 \text{ or } 5 + 32 = 37$$

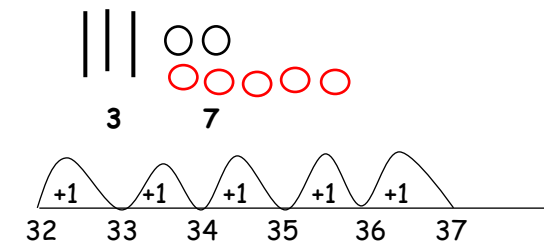
Tens	Ones
	
	
3	7

Leading onto a 2-digit number add tens (34 + 40)

Adding 2 digit numbers + multiples of 1 and 10

No exchanging

$$32 + 5 = 37 \text{ or } 5 + 32 = 37$$



Then adding tens only.

Adding 2 digit numbers + multiples of 1 and 10

No exchanging

Adding ones

Adding tens

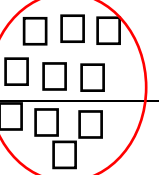
T	O
3	2
+	5
3	7

Tens	Ones
3	2
2	0
5	0

This written method is only shown alongside the pictorial.

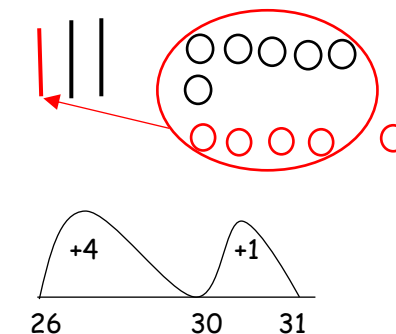
Exchanging (diennes)

$$26 + 5 = 31 \text{ or } 5 + 26 = 31$$

Tens	Ones
	
	

Exchanging

$$26 + 5 = 31 \text{ or } 5 + 26 = 31$$

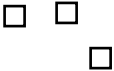


No written method for exchanging.

Adding two 2 digit numbers

No exchanging

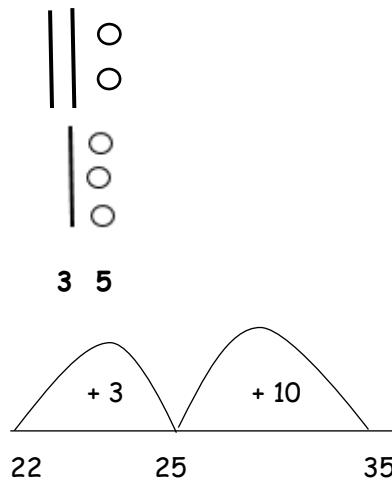
$$22 + 13 = 35$$

Tens	Ones
	
	

Adding two 2 digit numbers

No exchanging

$$22 + 13 = 35$$



Written

Adding two 2 digit numbers

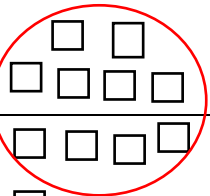
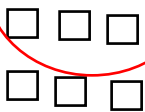
No exchanging

Tens	Ones
2	2
1	3
	5
3	0
3	5

This written method is only shown alongside the pictorial representation.

Exchanging

$$26 + 37 = 63$$

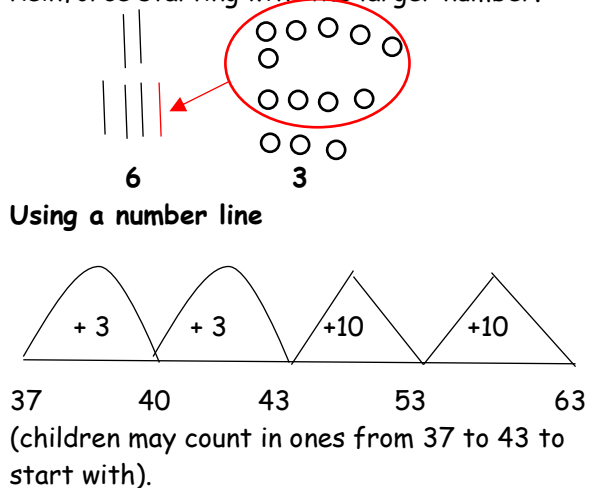
Tens	Ones
	
	

6 3

Exchanging

$$26 + 37 = 63$$

Reinforce starting with the larger number.



No written method for exchanging.

Mental Methods

Number facts:

Recap number facts to 10

Known complements to the next multiple of 10

$$52 + \underline{\quad} = 60$$

Know pairs of multiples of 10 totalling 100

$$60 + \underline{\quad} = 100$$

Number bonds to 10:

$$46 + 4 = 50 \quad (6 + 4 = 10)$$

Counting on:

$$37 + 20 \text{ (+10 then +10)}$$

$$42 + 23 \text{ (+20 then +3)}$$

$$47 + 15 \text{ (+10, +3 to the next 10 then +2)}$$

Near doubles:

$$\text{If } 7 + 7 = 14$$

$$\text{Then } 7 + 8 = 14 + 1 = 15$$

Redistribution:

$$38 + 47$$

$$\text{Redistribute to } 40 + 45 = 95$$

Partitioning:

$$23 + 12$$

$$20 + 10 = 30; 3 + 2 = 5; 30 + 5 = 35$$

Adjusting (on a number line)

$$34 + 9 \text{ (+10 then subtract 1)}$$

$$45 + 19 \text{ (+20 then subtract 1)}$$

Using known facts and place value:

$$63 + 4$$

$$\text{If } 3 + 4 = 7 \text{ then } 63 + 4 = 67$$

$$40 + 50$$

$$\text{If } 4 + 5 = 9 \text{ then } 40 + 50 = 90$$

Inverse:

Understand the inverse:

$$45 + 8 = 53$$

$$8 + 45 = 53$$

$$53 - 45 = 8$$

$$53 - 8 = 45$$