



Calculation Policy  
2020-2021  
Year 1

# Addition - Year 1

## End of Year Expectation:

Read, write and interpret addition number sentences using + and = symbols.

Represent and use number bonds within 20.

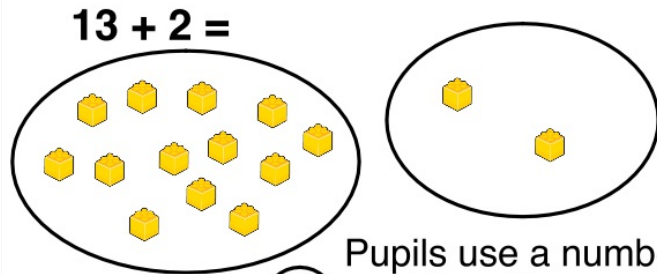
Add one-digit and two-digit numbers to 20, including 0.

Solve 1 step problems involving addition using concrete objects, pictorial representations and a numberline/number square.

Use addition to solve missing number problems.

Begin to recall and use addition facts to 20 fluently.

NB Refer to EYFS for skill development e.g. subitising



①

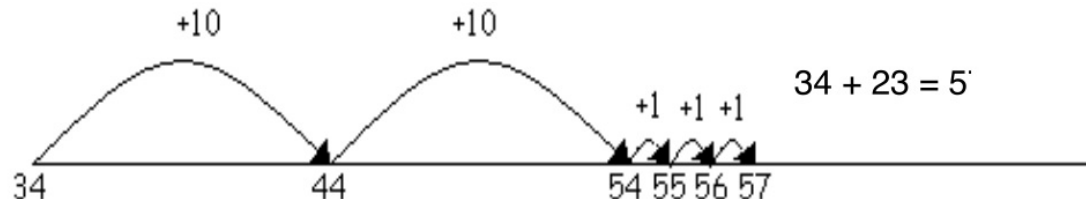
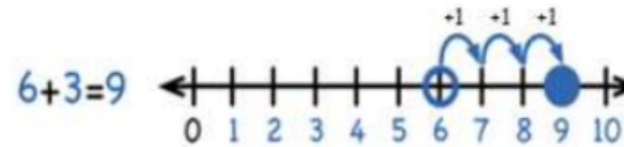
Children organise objects to enable effective and efficient counting. Joining two groups and recounting using one to one correspondence. Pupils understand that counting on from the greater is more efficient. Pupils should be encouraged to rely on number bonds knowledge as time goes on rather than using counting on as a main strategy.

Children begin to add 3 sets of numbers.

②

Pupils use a numberline and then a 100 square to add on, correctly continuing onto the next line. They can add 10 to any given number on a 100 square and describe its position.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



③

Recognise doubles to double 6

④

Children to partition 2 digit numbers and then begin adding 10 and then units. Work within 20 to begin with and then progress to adding a 2-digit and 2-digit e.g.  $17 + 12$

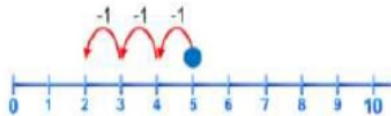
**Key vocabulary** add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on, number line

# Subtraction - Year 1

## End of Year Expectation:

Subtract one-digit and two-digit numbers within 20, including zero.  
 Use number bonds and related subtraction facts within 20.  
 Solve one-step word problems that involve subtraction, using concrete objects and pictorial representations, and missing number problems.  
 NB Ensure that children are confident with the methods outlined in the previous year's guidance before moving on.

- 1 Children consolidate understanding of subtraction practically using bead strings, cubes etc and in real life contexts. They are introduced to more formal recording using number lines, then using empty numbers lines.



$$5 - 3 = 2$$

Children to write and solve subtraction sentences with numbers no greater than 20 on a number line.

- 3 Embed number bonds and make connections:-

$$10 - 1 = 9 \quad \text{so} \quad 20 - 1 = 19$$

$$9 - 1 = 8 \quad \text{so} \quad 19 - 1 = 18$$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- 2 Model subtraction practically and using number tracks, number lines and 100 squares and practically.  
 Find the difference between - this is to be done practically using the language 'find the distance between' and 'how many more than?'

- 4 Children can subtract numbers up to 100 using a hundred square.

This will be introduced practically with the language 'find the distance between' and 'how many more?' in a range of familiar contexts.

7 'Seven is 3 more than four'

4 'I am 2 years older than my sister'

**Key vocabulary** equal to, take, take-away, less, minus, subtract, leaves, distance between, how many more, how many fewer/less than, most, least count back, how many left, how much less is...

Children to find small difference on a number line.

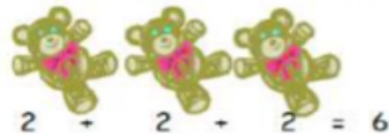
# Multiplication - Year 1

## End of Year Expectation:

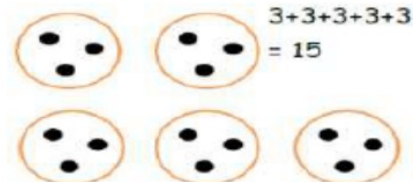
Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

- ① **Year 1** Multiply with concrete objects, arrays and pictorial representations

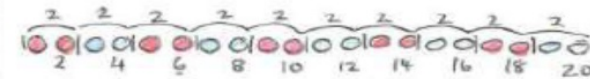
How many legs will 3 teddies have?



There are 3 sweets in one bag.  
How many sweets are in 5 bags altogether?



- ② Count in 2s, 5s, 10s

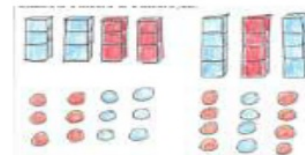


- ③ Use visual and concrete arrays and 'sets of objects' to find the answers to '3 lots of 4', '2 lots of 5' etc

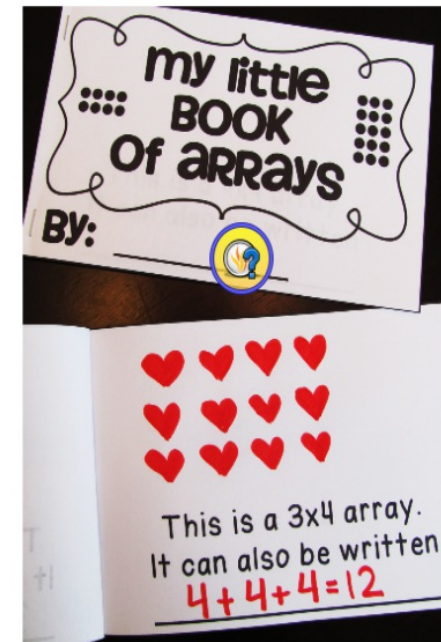
+ =

+ =

+ =



- ④ Use Numicon to find doubles to double 6



**Key vocabulary**

- groups of, lots of, times, array, altogether, multiply, count

# Division - Year 1

## End of Year Expectation:

Solve one step problems involving division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

### Key vocabulary

share, share equally, one each, two each..., group, groups of, lots of, array

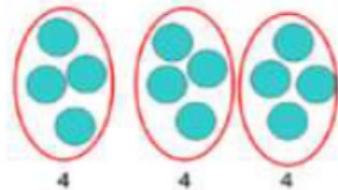
## Year 1 Group and share small quantities

Using both objects diagrams and pictorial representations, to solve problems involving both **grouping** and **sharing**.

Grouping:



Sharing:



12 shared between 3 is 4

Pupils should :

Children should solve a division problem within a context.

E.g. 5 children share 15 sweets. How many does each child get?

Can they solve this and write a division statement eg. 15 sweets shared between 5 children gives 3 each.

- use lots of practical apparatus, arrays and picture representations
- Be taught to understand the difference between „grouping“ objects (How many groups of 2 can you make?) and „sharing“ (Share these sweets between 2 people)
- Be able to count in multiples of 2s, 5s and 10s.
- Find half of a group of objects by sharing into 2 equal groups.

1



12 shared between 3 equals 4.