

Tudhoe Colliery Primary School



Year 1 Calculation Policy



Addition

Year 1

End of Year Statements:

Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.

Represent and use number bonds and related subtraction facts within 20.

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

Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems, such as $7 = \square - 9$

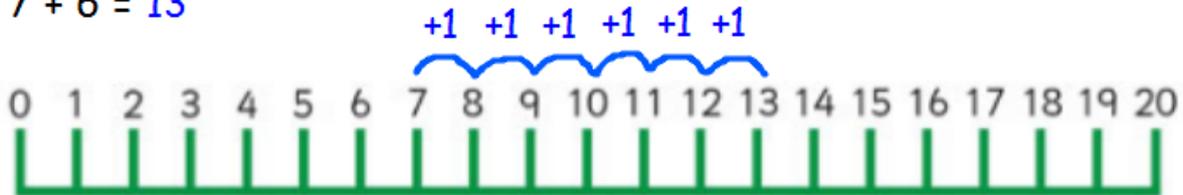
Key Vocabulary:

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

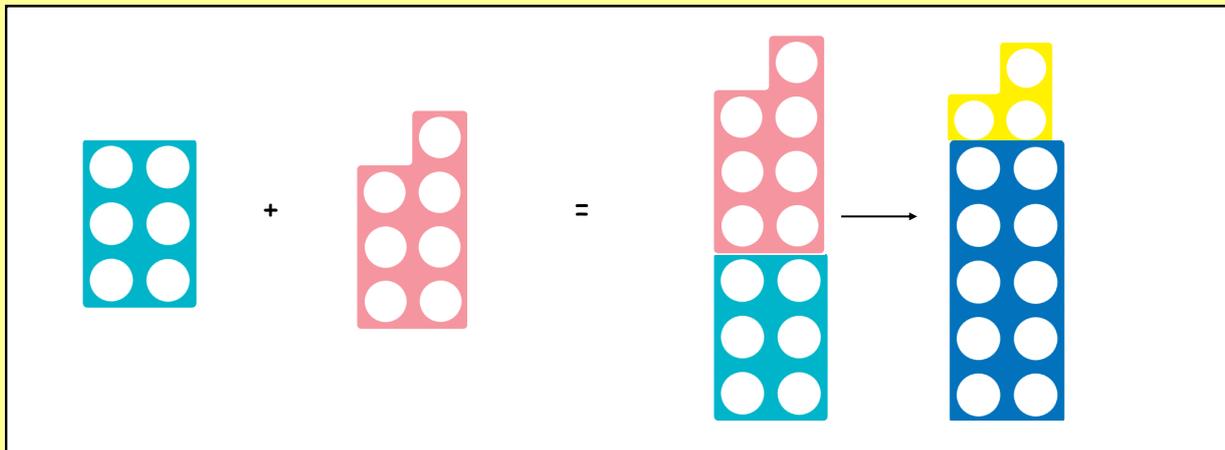
Written Methods:

Children should use numbered number lines to add small numbers to 20, counting on from the larger number.

$$7 + 6 = 13$$



Children can also use Numicon to help them visualise the numbers they are adding together.





Subtraction

Year 1

End of Year Statements:

Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.

Represent and use number bonds and related subtraction facts within 20.

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

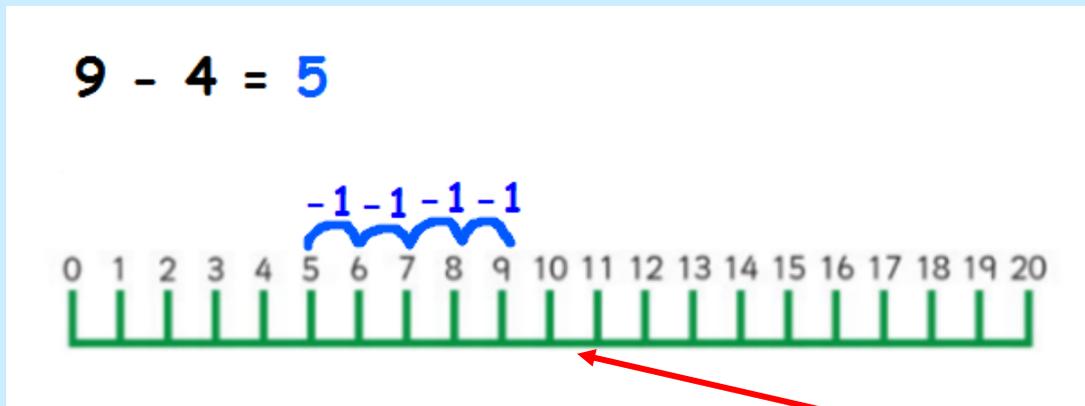
Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems. such as $7 = \square - 9$

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_?

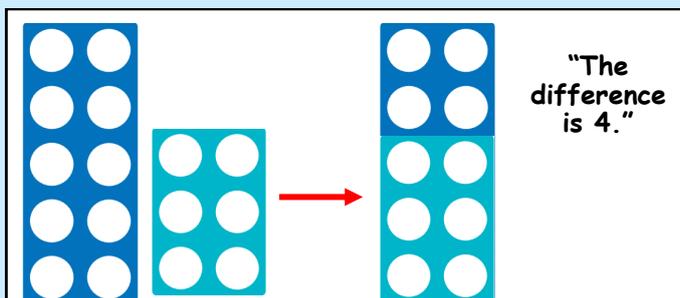
Written Methods:

Children consolidate their understanding of subtraction practically, showing subtraction on bead strings, using cubes, Numicon etc. and in familiar contexts. They are also introduced to more formal recording using number lines as shown below.



Children should also start to think of subtraction as 'finding a difference.' This should be done practically, e.g. using bead string or Numicon to help support understanding. This will prepare the children for using 'Counting up' as a mental subtraction method in Year 2,

Children use the number line to jump back in ones. They record this from right to left on the number line.



Children can place the smaller Numicon shape over the larger one to help find the difference between the numbers.



Multiplication Year 1

End of Year Statements:

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

Key Vocabulary:

groups of, lots of, multiply, count.

Written Methods:

Much of children's work on multiplication at the start of Year 1 will be **practical** and recorded as photographs in books rather than written recorded work. They should be given lots of opportunities to count in 2s, 5s and 10s and solve simple problems using these numbers.



Five pairs of socks. How many socks altogether?

Children can start to record these as number statements using addition.

$$2 + 2 + 2 + 2 + 2 = 10$$

$$5 \times 2 = 10$$

$$5 + 5 + 5 + 5 + 5 = 25$$

$$5 \times 5 = 25$$



How many fingers would be on 5 hands altogether?

Children should move into using **arrays** to understand their multiplication.



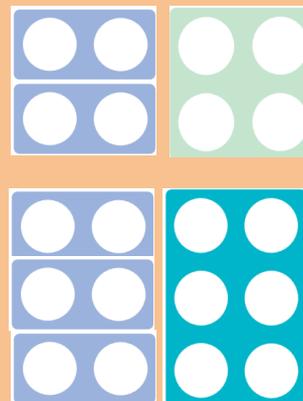
The arrays should involve counting in 2s, 5s and 10s.

Four rows of 2 stars. How many stars altogether?

2, 4, 6, 8

Two groups of 4 stars. How many altogether?

4, 8



Children can count up in 2s and then place the matching Numicon value over the top to show the answer.

Children can also use **Numicon** to illustrate counting in 2s, 5s and 10s.



Division Year 1

End of Year Statements:

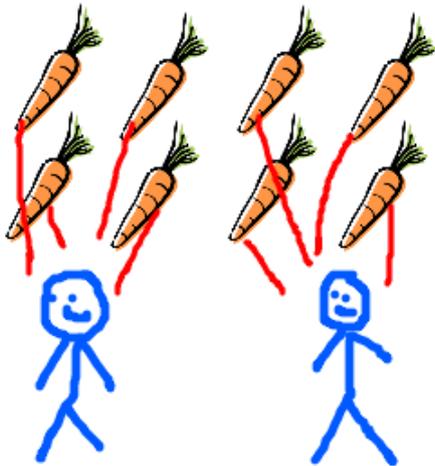
Solve simple one step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher, including problems in contexts.

Key Vocabulary:

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

Written Methods:

Children use the language of **grouping** and **sharing** for division. They should gain lots of practical experience, using counters and different objects to demonstrate sharing and grouping.



There are 8 carrots. If we share them equally between 2 people, how many will they have each?

Grouping and Sharing should be done practically in lots of different contexts and with different types of equipment. This could be linked to topic but should also be in every-day contexts e.g. Sharing out pencils or fruit, grouping sweets or children. Children should start to see division as a useful operation!



We have 20 sweets. How many groups of 2 can we make?

