

Maths Information Year 1

Main aims of Maths

In Maths, there are 3 key aims across all the areas and these are:

Fluency- Children are able to link ideas in all areas and rapidly recall and apply their knowledge accurately.

Reasoning- Children need to develop an argument, justification or proof for their answer using mathematical language.

Problem solving- Children apply their mathematics knowledge in a variety of formal and informal recording, breaking problems down into different steps.

Counting

Children should be able to:

- count to 100, forwards and backwards, beginning with 0 or 1, or from any given number.
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.

To help with these, children can practise counting, ordering (first, second, third) and to indicate quantity (3 apples and 2 cm) involving practical problems.

Addition and subtraction

Children should be able to:

- represent and use number bonds and related subtraction facts within 20.
- add and subtract one digit and two digit numbers to 20, including 0

Doing this mentally is very important.

Number bonds means ways of making a number. E.g.

Number bonds to 5

$$0 + 5$$

$$1 + 4$$

$$2 + 3$$

$$3 + 2$$

$$4 + 1$$

$$5 + 0$$

Number bonds to 12

$$0 + 12 \quad 7 + 5$$

$$1 + 11 \quad 8 + 4$$

$$2 + 10 \quad 9 + 3$$

$$3 + 9 \quad 10 + 2$$

$$4 + 8 \quad 11 + 1$$

$$5 + 7 \quad 12 + 0$$

$$6 + 6$$

Relating subtraction facts means understanding the relationship between addition and subtraction.

E.g. $3 + 2 = 5$

$$7 + 8 = 15$$

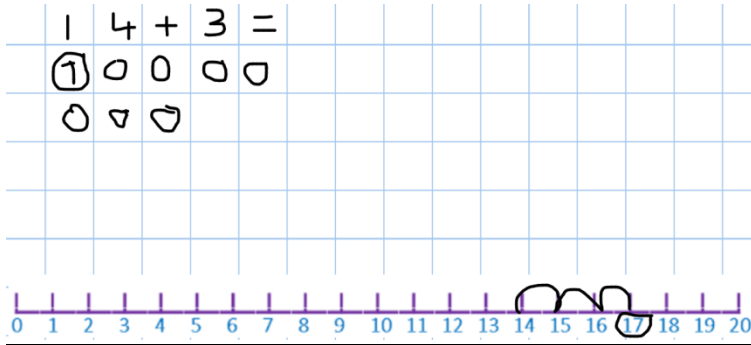
$$5 - 3 = 2$$

$$15 - 8 = 7$$

$$3 = 5 - 2$$

$$8 = 15 - 7$$

Addition

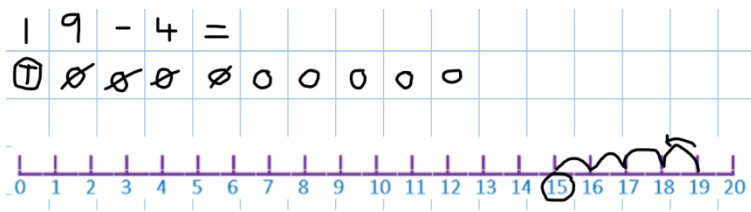
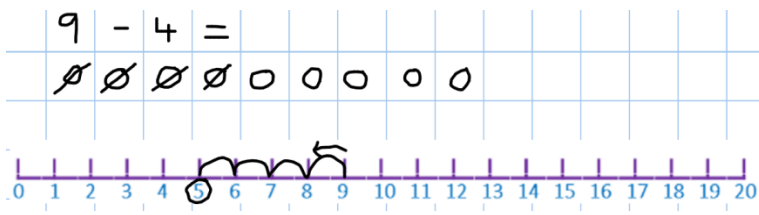


In Year 1, children will initially continue to use objects to help with their addition and subtraction.

Rather than relying on physical objects, the children will move more towards recording their information by drawing cups and drawing on a number line.

The focus also moves towards children doing work mentally, in order to develop their fluency and confidence.

Subtraction



Multiplication and Division

Children should be able to:

- Solve one - step problems using pictures and concrete objects.

This is very practical and is not written as a number sentence in Year 1.

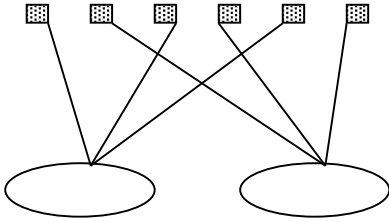
Multiplication

Daisy had 4 books on each shelf. There were 3 shelves altogether. How many books did Daisy have?



Division

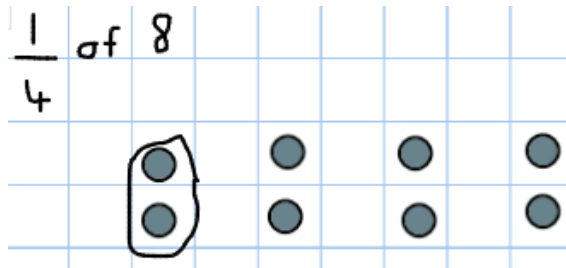
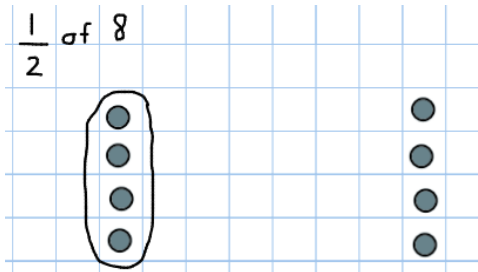
6 sweets are shared equally between 2 people



Fractions

Children should be able to read $\frac{1}{2}$ and $\frac{1}{4}$ as fractions. They should also be able to sort objects into $\frac{1}{2}$ (2 groups) and $\frac{1}{4}$ (4 groups).

E.g.



Measures

Children should be able to;

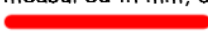

- measure, compare, describe and solve practical problems including
 - length and heights
 - mass/weight
 - capacity and volume
 - time (minutes and seconds)

Length and Heights

This is measured in millimetres (mm), centimetres (cm), metres (m) and kilometres (km). Children need to use the language taller, shorter, tallest, shortest, longer, shorter, longest and shortest.

Children need to be able to compare the lengths and heights as well as accurately measure them.

E.g.

measured in mm, cm, m and km
A  Which line is longer?
B  Which line is shorter?

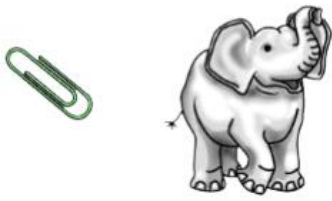


Which girl is taller?

Which girl is shorter?

Mass/Weight

This is measured in grams (g) and kilograms (kg). Children should be able to use the language heavier than and lighter than. Children need to be able to compare the mass as well as accurately weigh it.

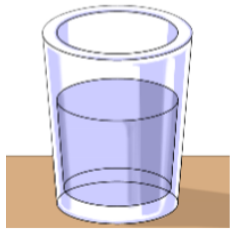


Which is heavier?

Which is lighter?

Capacity and volume

This is measured in millilitres (ml) and litres (l). Children should be able to compare capacity as well and measure it accurately. They should also use the language full/empty more than, less than, half full, quarter full.



How full is the glass?

full/empty

more than/less than

half full

quarter full

Time

This is measured in seconds, minutes, hours, days, weeks and months. Children should know the days of the week and months of the year in order. They need to be able to tell the time for o'clock and half past on an analogue clock. They should be able to draw on the hands, correctly drawing the lengths of the hands and the correct position.

