Maths Information Year 2

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 in steps of 2, 3 and 5 from 0 and in 10s from any number, forward and backward.

-recognise the place value of each digit in a 2 digit number (tens and ones)

- compare and order numbers from 0 up to 100; use < > and = signs

Counting in 3s will prepare them for the 3 times table in Year 3. Children should break down numbers in different ways.

E.g. 43 = 40 + 3
   30 + 13
   20 + 23
   10 + 33

Addition and subtraction

Children should be able to:

- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.

- add and subtract pictorally and mentally

  - a two digit number and ones

  - a two digit number and tens

  - two two-digit numbers

  - adding three one digit numbers

- show that addition can be done in any order (commutative)

Doing this mentally is very important.

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

Number bonds to 15

0 + 15	4 + 11	8 + 7	12 + 3
1 + 14	5 + 10	9 + 6	13 + 2
2 + 13	6 + 9	10 + 5	14 + 1
3 + 12	7 + 8	11 + 4	15 + 0

Relating subtraction facts means understanding the relationship between addition and subtraction.
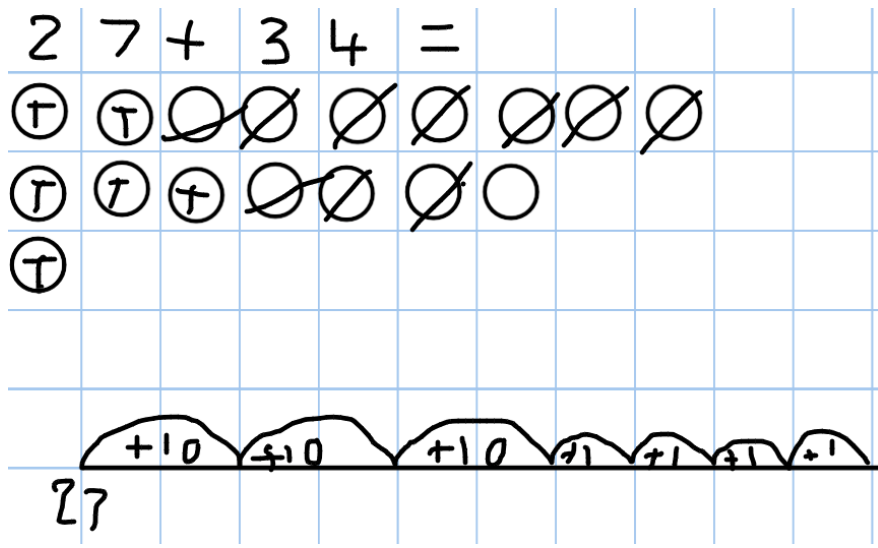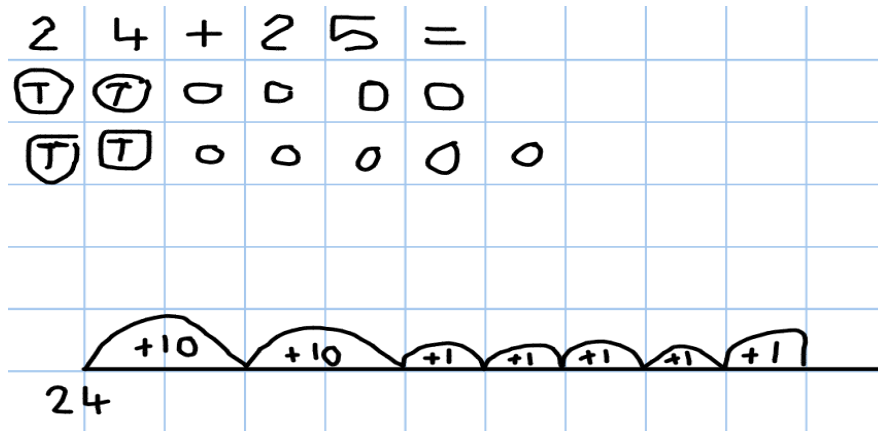
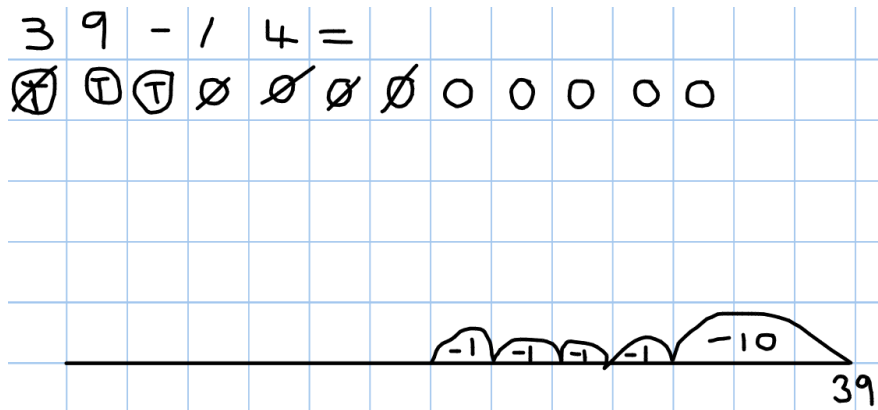E.g. 13 + 2 = 15   7 + 8 = 15

   15 – 3 = 12   15 – 8 = 7

   13 = 15 – 2   8 = 15 – 7

Addition

2 4 + 2 5 =

In Year 2, children will record their information by drawing cups and drawing on a number line. This includes drawing blank number lines.

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

Children need to be secure in their number bonds to 20 in order to apply that knowledge to more complex questions.
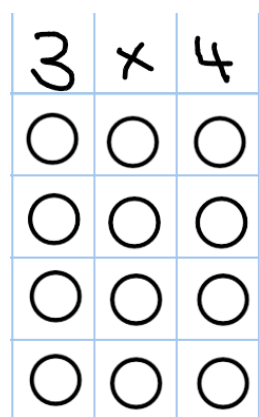
Subtraction

3 9 – 1 4 =

$41 - 23 =$
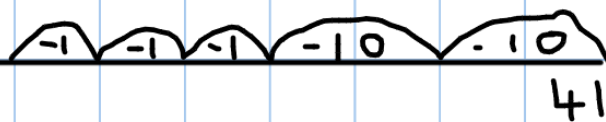
Multiplication and Division

Multiplication and Division

- solve problems using pictures and concrete objects, whilst applying your times table knowledge.
- recall and use multiplication and division facts for the 2, 5 and 10 times table including recognising odd and even numbers.
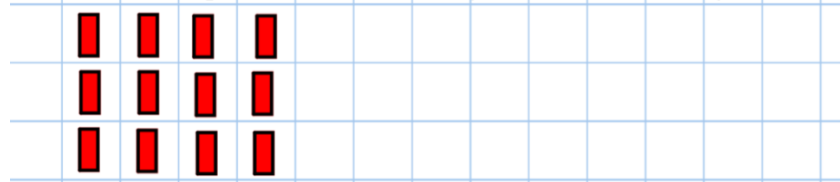- calculate mathematical and division statements.

To multiply numbers, draw 3 cups, 4 times. Then count the total number of cups altogether.
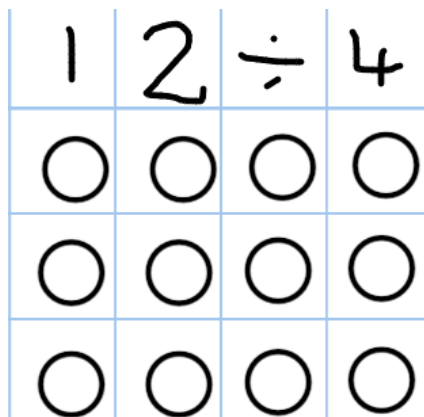
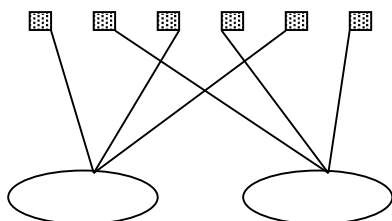To divide numbers, draw the first number, split into piles of the second number. Then count the number of piles.

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 :
- recognise, find and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantities.

- write simple fractions for example, 1/2 of 6 = 3 and recognise equivalent of 2/4 and 1/2

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

E.g.
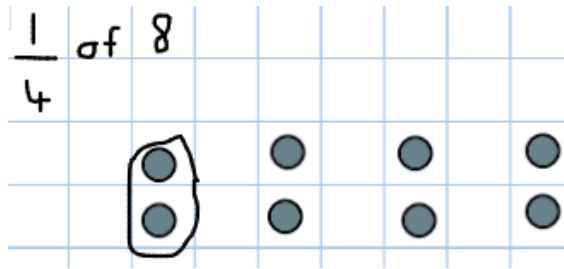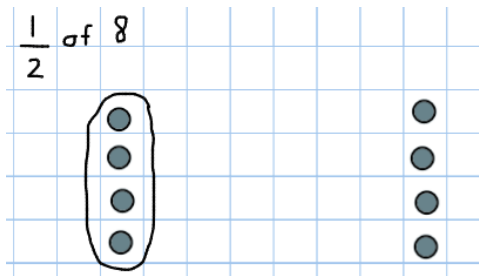
Measures

Children should be able to;
- estimate and measure, compare, order describe and solve practical problems including
length and heights   mass/weight   capacity and volume
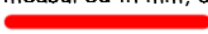time (minutes and seconds) £ and p temperature
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

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.

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.
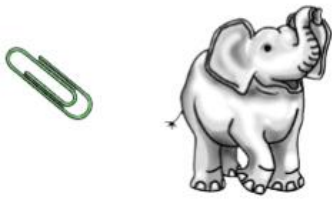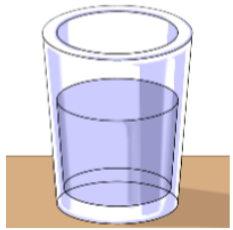
Which is heavier?

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 to the nearest 10 minutes and quarter to and quarter past the hour.