



A guide to
'Helping your child
with written
methods in Maths'
at home
Years 1 & 2

Children will be following the CPA approach.

C – concrete – can we **MAKE** it?

Children will use manipulatives (resources) to help make the calculations. This might be using cubes, counters, or any other objects that can represent numbers.

Once the children can make it, we move to

P – pictorial – can we **DRAW** it?

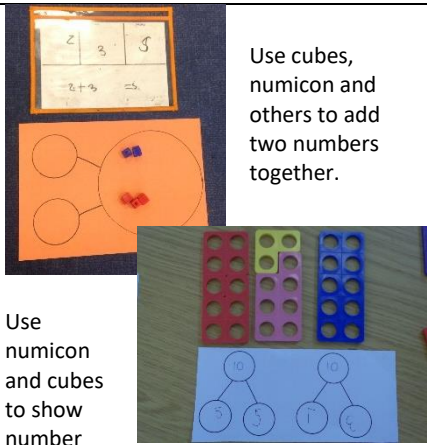
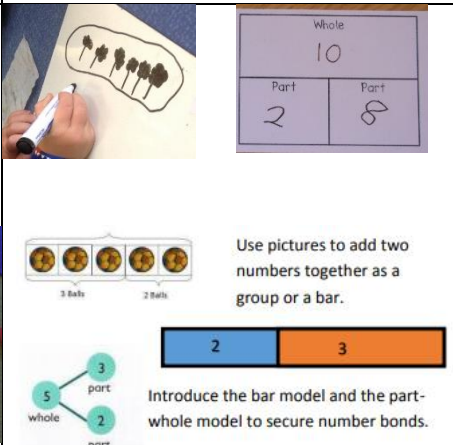
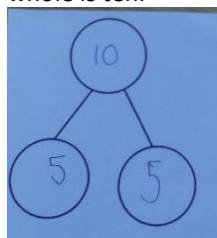
Children will need to draw their representations.

Perhaps copying the objects used first, then moving to use lines and circles (sticks and stones) towards the end of year 1 and in year 2.

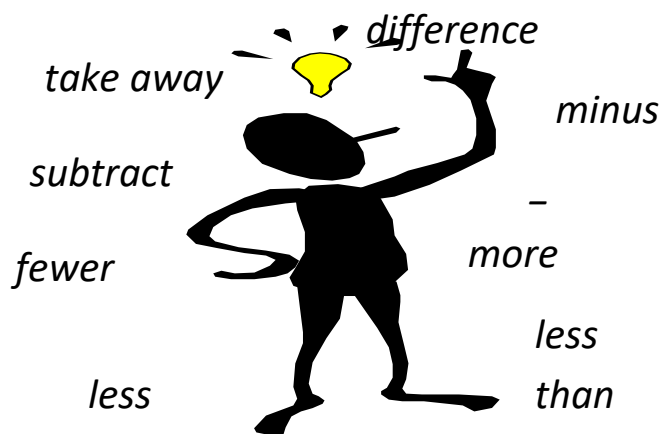
Once the children can use the concrete and pictorial approach, they will be able to write the abstract alongside.

A – abstract – can we **WRITE** the calculation.

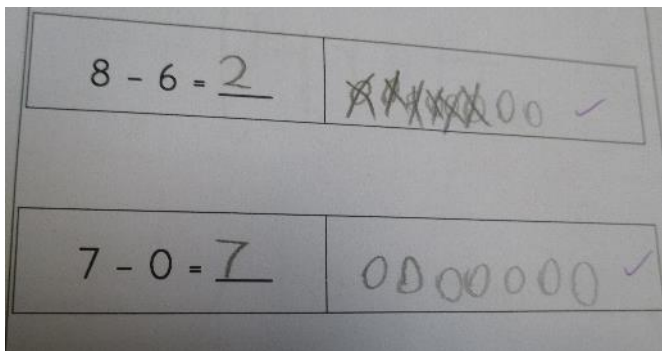
For example...

Concrete (can we MAKE it?)	Pictorial (can we draw it?)	Abstract (can we write the calculation?)
 <p>Use cubes, numicon and others to add two numbers together.</p> <p>Use numicon and cubes to show number bonds.</p>	 <p>Use pictures to add two numbers together as a group or a bar.</p> <p>Introduce the bar model and the part-whole model to secure number bonds.</p>	<p>$5 + 5 = 10$ 5 is a part, 5 is a part, the whole is ten.</p> 

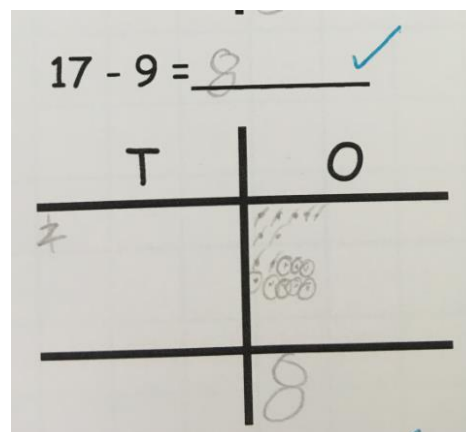
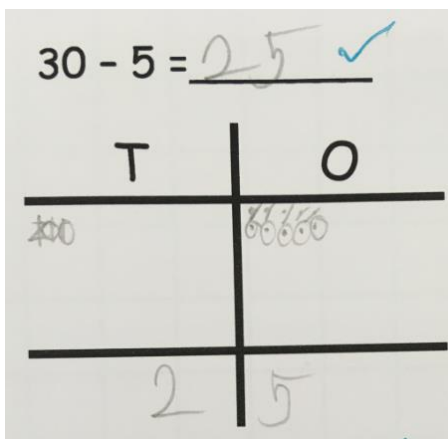
Subtraction



In year 1, pictures and marks are used to help children subtract, e.g.



In year 2, children will be using the tens and ones grid for subtraction. They put the starting number on the grid in 'sticks and stones' then cross out the number being subtracted.



Multiplication



In year 1 children will solve simple multiplication problems such as:

There are 2 seeds in a packet, how many in 7 packets?

They will use pictorial methods to record what the answer is, e.g.



By year 2, children will begin to multiply by using repeated addition and show this pictorially using an array.



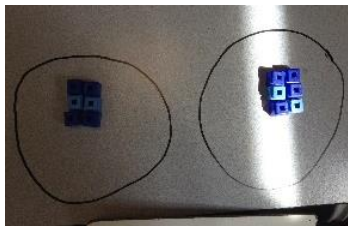
$$4 \times 2 \text{ or } 4 + 4$$

$$2 \times 4 \text{ or } 2 + 2 + 2 + 2$$

Division

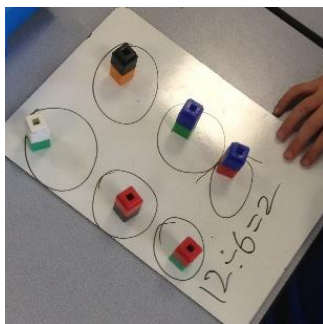
In year 1, children will learn division as sharing or grouping.

E.g. What is 12 shared between 2?



Or

There are 12 smarties and 6 children, how many smarties will each child get?



By year 2, instead of pictures, children can use marks.

E.g.

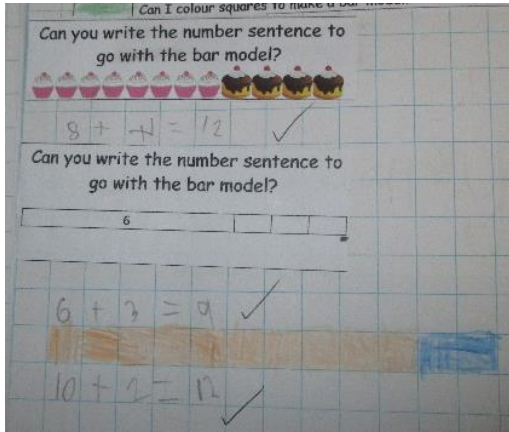
$6 \div 2$ can be modelled as:

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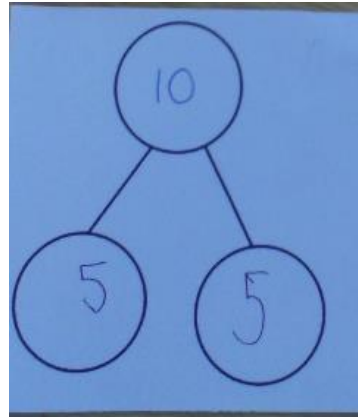
So $6 \div 2 = 3$

You may also hear these phrases. These are some of the models and images we use to support children.

Bar model

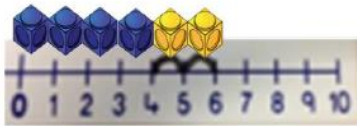


part-part-whole,



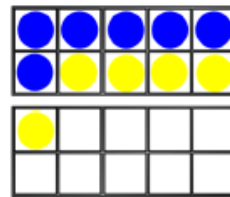
number line

Counting on using number lines using cubes or Numicon.

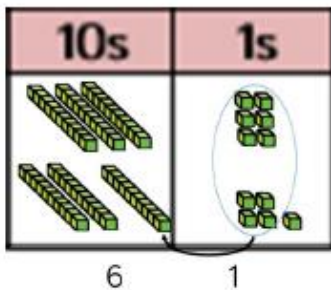


tens frame

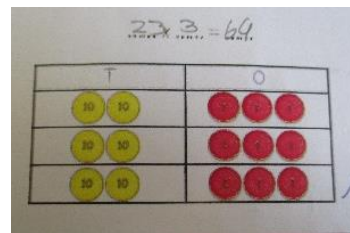
Children to draw the ten frame and counters/cubes.



base 10



place value counters



Missing digit problems:

10s	1s
10 10	1
10 10 10	?
?	5

missing numbers,

How you can help your child at home

- ❖ It is most important that you *talk & listen* to your child about their work in maths. It will help your child if they have to explain to you,
- ❖ Share the maths activity with your child and discuss it with them,
- ❖ Be positive about maths, even if you don't feel confident about it yourself,
- ❖ Remember, you are not expected to teach your child maths, but please share, talk and listen to your child,
- ❖ A lot of maths can be done using everyday situations and will not need pencil and paper methods,
- ❖ Play games and have fun with maths!

Here are some examples of how you can include mathematics at home:

SHOPPING



- Looking at prices,
- Which coins? – looking at different combinations,
- Weighing fruit and vegetables in the supermarket,
- Counting pocket money,
- Reading labels on bottles, packets, in order to discuss capacity, weight, shape and colour,

TIME

- Looking at the clock – identify the numbers telling the time using analogue and digital clocks,
- Looking at the posting times on the post box,
- Discussing events in the day e.g. teatime, bed time, bath time,
- Setting an alarm clock,
- Talking about the days of the week and the months of the year,

