KS2 Maths Parent Workshop:

Addition & Subtraction

Give your child lots of praise and encouragement!

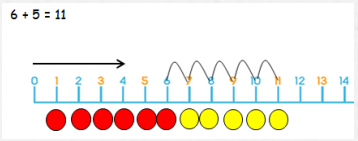
Aims of the session:

- To find out how Maths is taught in Years 3, 4, 5 and 6 at Queensmead.
- To try out some maths activities using our calculation policy.
- To take away some ideas to support your child at home.

Making Connections at Queensmead:

+

symbols



language

pictures

add more

sum total

concrete experiences

Here is a receipt for some shopping. How much did I spend?

Our Calculation Policy

We follow this for addition, subtraction, multiplication and division strategies.

We will focus on addition and subtraction methods today.

Addition in KS2

Children are taught to understand addition as combining two sets and counting on.

Addition in KS2

487+546=

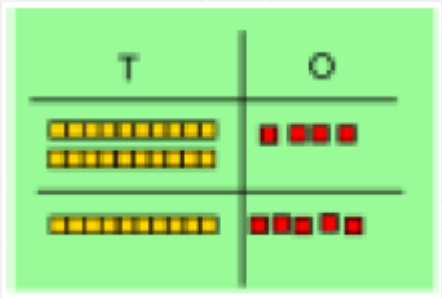
There are 487 boys and 546 girls in a school. How many children are there altogether?

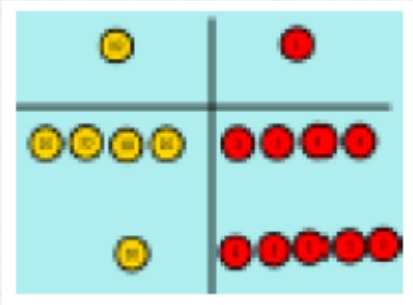
400	80	7	
500	40	6	
900+	120	+ 13	= 1033

Children will be taught written methods for those calculations they cannot do 'in their heads'. Expanded methods build on mental methods and make the value of the digits clear to children. The language used is very important (6+7, 40+80, 500+400, then 900+120+13 - *add this mentally NOT in columns*).

Addition in KS2

Ways that we represent formal written methods for addition:

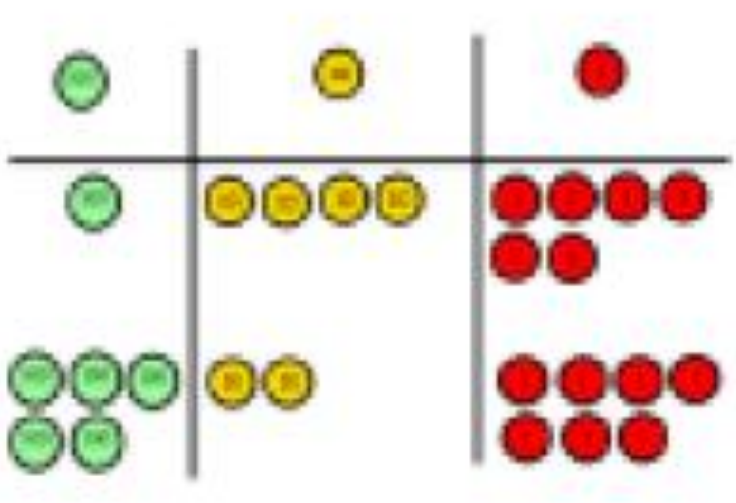




Addition in KS2

An example:

Make both numbers on a place value grid:



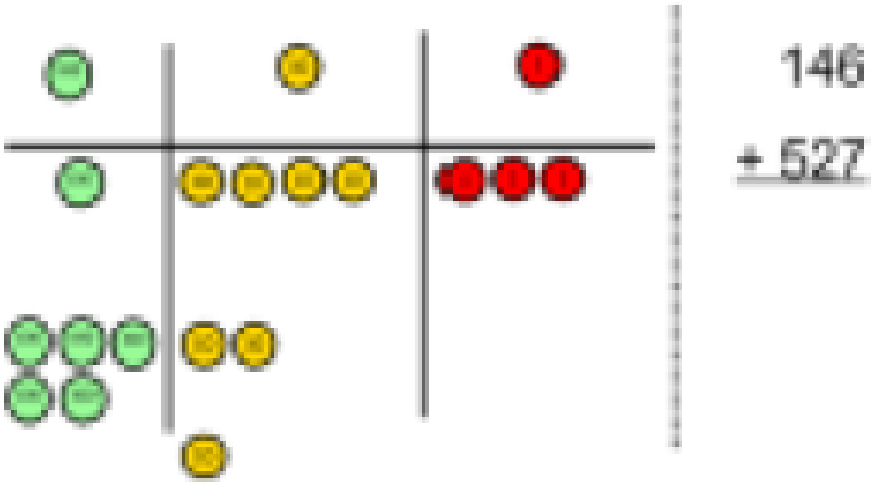
146

+ 527

Addition in KS2

An example (continued):

Add up the ones and exchange 10 ones for 1 ten:



146
+ 527

Add up the rest of the columns, exchanging when there are 10 counters in one column for the next place value column until every column has been added.

Addition in KS2

89,787 + 6,879 =

89,787 people visited the museum last year.
The numbers increased by 6,879 this year.

How many people altogether visited this year?

```
  89787
+  6879
  1111
 96666
```

When children are confident using the expanded method, this can be 'squashed' into the traditional compact method.

Addition in KS2

Can you try representing these addition sentences in different ways?

47 + 34 = 81

522 = 346 + 176

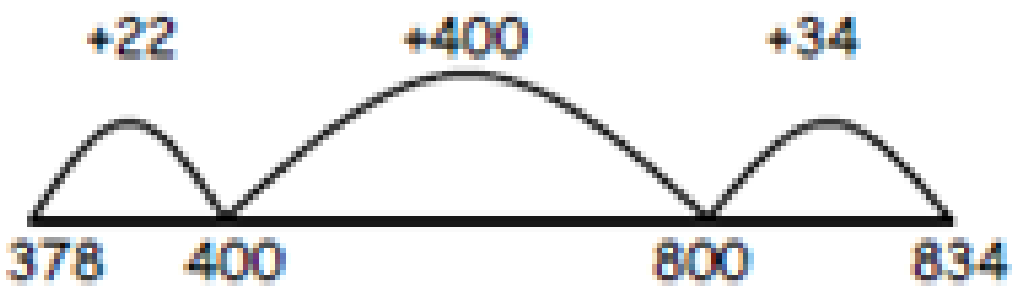
Subtraction in KS2

Children are taught to understand subtraction as taking away (counting back) and finding the difference (counting up)

Subtraction in KS2

834-378=

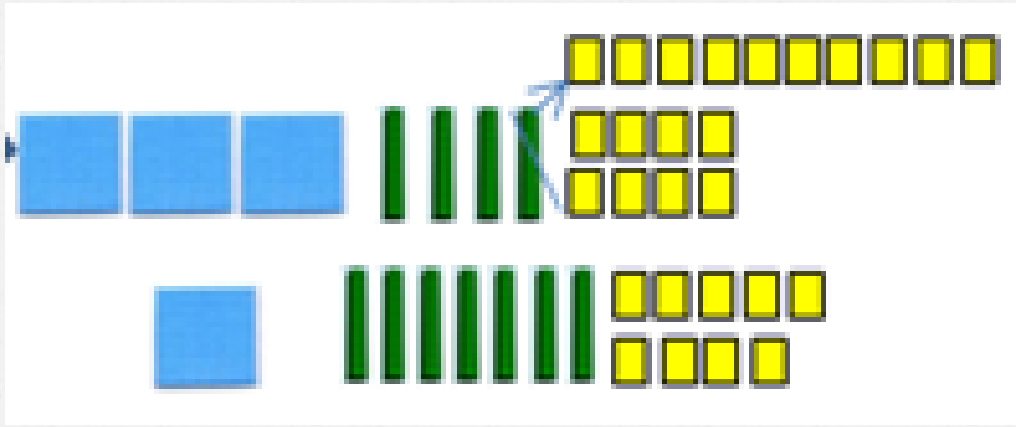
The library owns 834 books. 378 are out on loan. How many are on the shelves?



Children could count on (from the smallest number to the largest) to find the difference. It is easiest to count up to a multiple of 10 or 100. The jumps need to be added up below the number line. Encourage your child to add the largest number first and cross them out as they go along to help avoid mistakes.

Subtraction in KS2

348-179 =



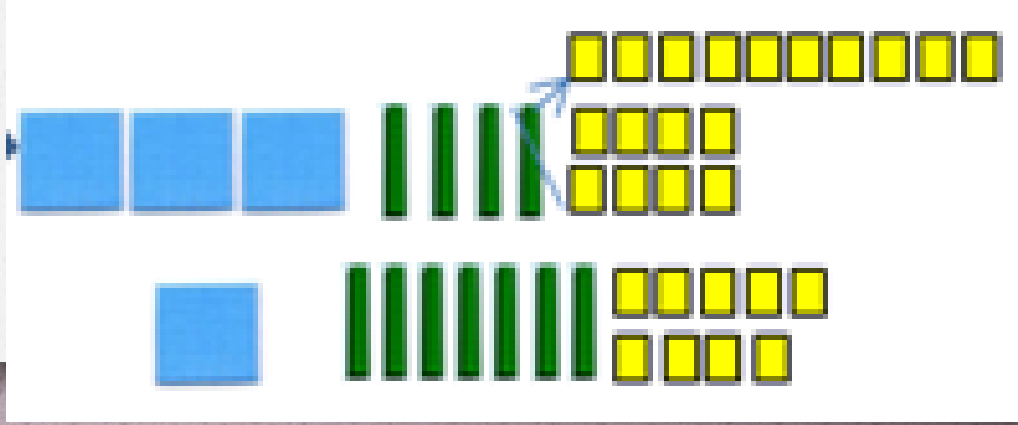
Once secure with subtraction using a number line, children will be introduced to the expanded column method. Concrete resources such as Base 10 will be used alongside this method initially, to support the modelling of 'exchanging'.

Subtraction in KS2

348-179 =

If you have 8 'ones' you do not have enough 'ones' to be able to subtract (take away) 9 – (in this context and without going into negative numbers) - so a ten needs to be **exchanged**.

200	1 30	1
~~300~~	~~40~~	8
100	70	9
100	60	9



Subtraction in KS2

348-179 =

```
    1
  2 3 1
  3 4 8
- 1 7 9
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  1 6 9
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```

The children will eventually move on to the compact column method for subtraction. It is important that the term exchange is used, not 'borrowing' or 'knocking on the door'.

Subtraction in KS2

3952-1475 =

		1		
		8	4	1
	3	9	5	2
-	1	4	7	5
	2	4	7	7

Subtraction in KS2

Can you try representing these subtraction sentences in different ways?

57 - 38 = 19

189 = 357 - 168

How can I help my child with Maths?

- Practise:
  - counting in steps forwards and backwards
  - Recalling facts
    - Number bonds (different pairs of numbers with the same total)
    - Times tables and related division facts.
    - Factors and multiples
    - Prime numbers, square numbers & cube numbers.
- Try out the activities in the parent guides.
- Use the parent calculation guides to support with written methods

Give your child lots of praise and encouragement!