

Maths in KS1

Number and Calculation

Curriculum Requirements - Year 1

Place Value	Addition and Subtraction
<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p>
<p>Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s</p>	<p>Represent and use number bonds and related subtraction facts within 20</p>
<p>Given a number, identify 1 more and 1 less</p>	<p>Add and subtract one-digit and two-digit numbers to 20, including 0</p>
<p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</p>	<p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$.</p>
<p>Read and write numbers from 1 to 20 in numerals and words.</p>	

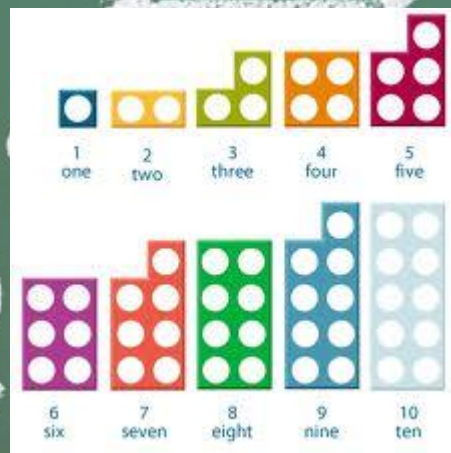
Curriculum Requirements - Year 2

Place Value	Addition and Subtraction
<p>Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward</p>	<p>Solve problems with addition and subtraction:</p> <ol style="list-style-type: none">using concrete objects and pictorial representations, including those involving numbers, quantities and measuresapplying their increasing knowledge of mental and written methods
<p>Recognise the place value of each digit in a two-digit number (10s, 1s)</p>	<p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p>
<p>Identify, represent and estimate numbers using different representations, including the number line</p>	<p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ol style="list-style-type: none">a two-digit number and 1sa two-digit number and 10s2 two-digit numbersadding 3 one-digit numbers
<p>Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs</p>	<p>Show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot</p>
<p>Read and write numbers to at least 100 in numerals and in words</p>	<p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>
<p>Use place value and number facts to solve problems.</p>	

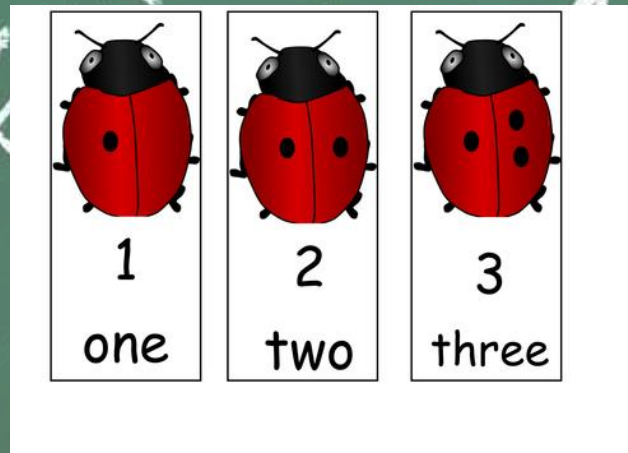
Concrete - Pictorial - Abstract

There is no emphasis on moving the children through to the next year group. What we aim to do is develop their understanding and broaden their thinking within the year groups that they are in. We do this in three ways:

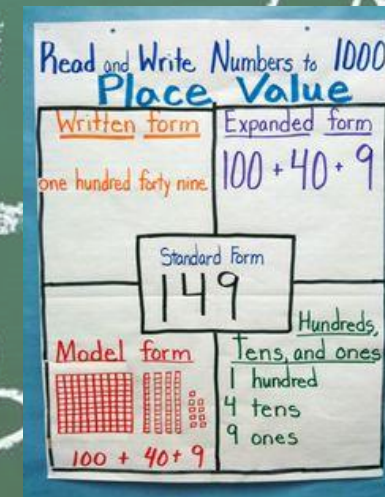
Concrete



Pictorial



Abstract



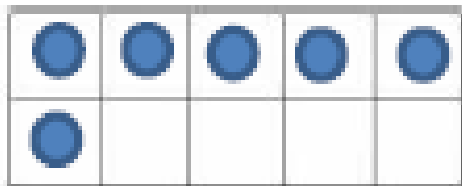
Fluency - Reasoning - Problem Solving

The school has adopted a mastery approach to maths, which requires the children to develop the skills that they learn and be able to apply them in different contexts.

The learning intention for these activities is to be able to count, read and write numerals to ten in words.

Fluency

Write the number shown on the tens frames in numerals.



Reasoning

Sam says 'There are 9 stars.' Is he right?



Problem Solving

- Find a number to match the criteria. Use the number cards.

A number bigger than 8

An odd number

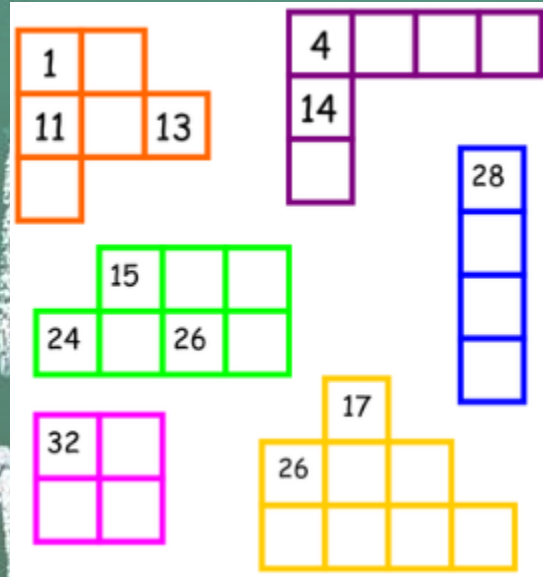
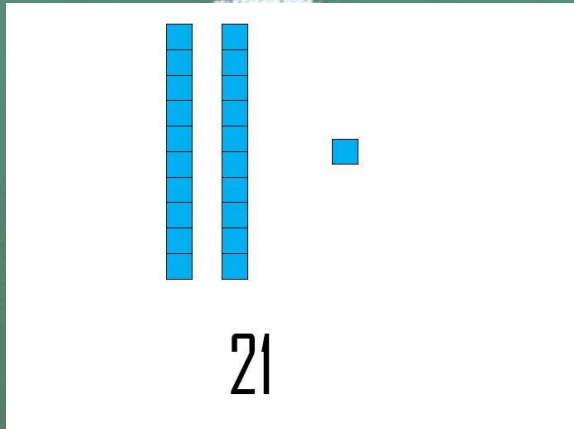
A number smaller than 6

nine

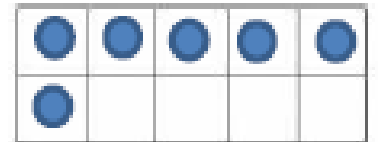
5

seven

Different representations of number



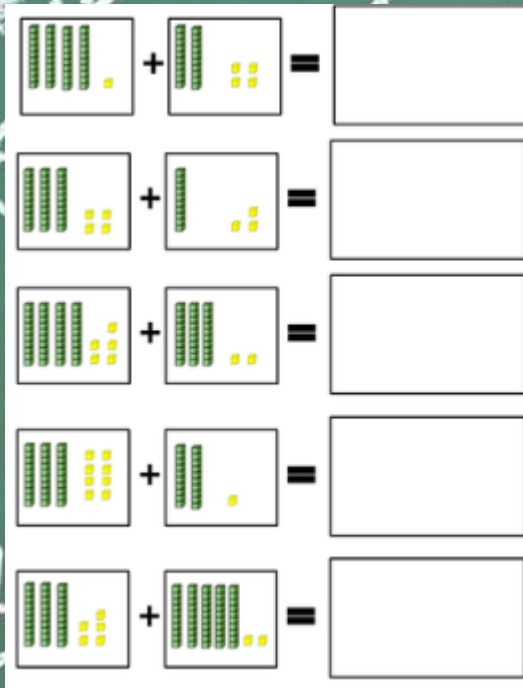
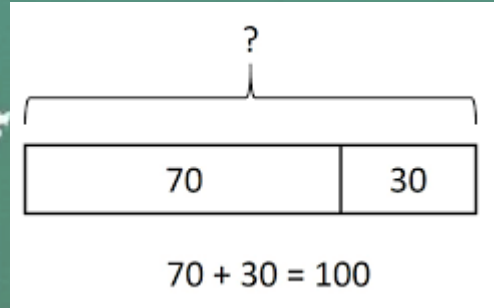
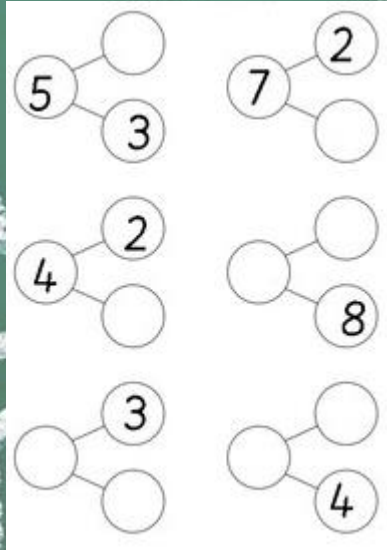
Write the number shown on the tens frames in numerals.



$$(a+b)^2 = a^2 + 2ab + b^2$$

Representations of Addition and Subtraction

7		6
5	4 5	3
9	10	
4	5	1 8
10	9	9
3	6	7



What is the difference between 9 and 5?

What is the difference between 7 and 6?

Inverse Operation

Children are encouraged to be thorough in their calculations. In year 2, they are encouraged to do this using the inverse.

Eg

$$5 + 12 = 17$$

$$12 + 5 = 17$$

$$17 - 5 = 12$$

$$17 - 12 = 5$$

They also need to be able to recognise that addition is commutative.

Learning at home to support number and addition.

- Encourage your child to read numbers when you are at home or out and about.
- If you are shopping, pick up 3 potatoes and say "We need to buy 5, how many more do we need?" or simply get them to count items for you.
- Mathletics