



**Tadpole Farm**  
CE Primary Academy

# Year 2 Maths at Tadpole Farm

This booklet has been written to help you understand the methods used in mathematics in our year group. These methods will be taught as part of the maths lessons and revisited through their home learning. We would encourage parents to use the same methods so that the children can become confident with them.

We use the following terms to create a progression of methods:

Concrete: Using objects and manipulatives to solve problems.

Pictorial: Drawing pictures and diagrams to solve problems.

Abstract: Using written methods to solve problems.

# Addition

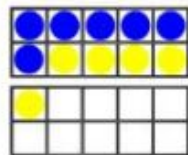
**Vocabulary we use:** parts and wholes, plus, add, altogether, more, total, sum, 'is equal to', 'is the same as'

Regrouping to make 10; using ten frames and counters/cubes or using Numicon.

$6 + 5$



Children to draw the ten frame and counters/cubes.



Children to develop an understanding of equality e.g.

$6 + \square = 11$

$6 + 5 = 5 + \square$

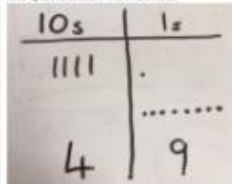
$6 + 5 = \square + 4$

TO + O using base 10. Continue to develop understanding of partitioning and place value.

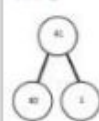
$41 + 8$



Children to represent the base 10 e.g. lines for tens and dot/crosses for ones.

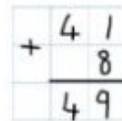


$41 + 8$



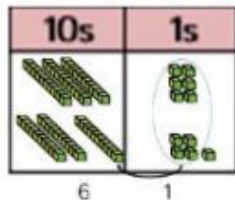
$1 + 8 = 9$

$40 + 9 = 49$

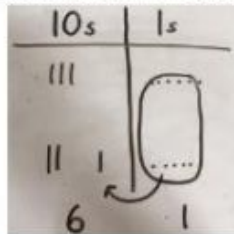


TO + TO using base 10. Continue to develop understanding of partitioning and place value.

$36 + 25$



Children to represent the base 10 in a place value chart.

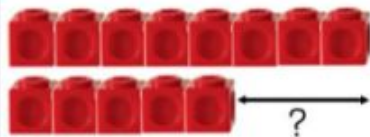


# Subtraction

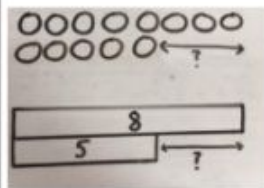
**Vocabulary we use:** take away, less than, the difference, subtract, minus.

**Finding the difference** (using cubes, Numicon or Cuisenaire rods, other objects can also be used).

Calculate the difference between 8 and 5.

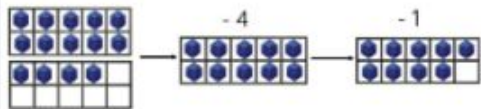


Children to draw the cubes/other concrete objects which they have used or use the bar model to illustrate what they need to calculate.

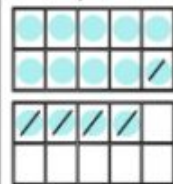


**Making 10 using ten frames.**

14 - 5

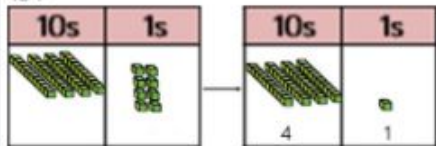


Children to present the ten frame pictorially and discuss what they did to make 10.

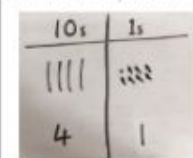


**Column method using base 10.**

48 - 7



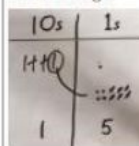
Children to represent the base 10 pictorially.



**Column method using base 10 and having to exchange.**  
41 - 26



Represent the base 10 pictorially, remembering to show the exchange.

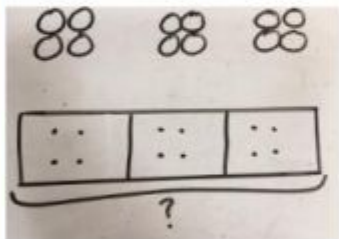


# Multiplication

**Vocabulary we use:** double, times, multiplied by, groups of, lots of

## Pictorial

Children to represent the practical resources in a picture and use a bar model.



## Abstract

$$3 \times 4 = 12$$

$$4 + 4 + 4 = 12$$

Use arrays to illustrate commutativity counters and other objects can also be used.

$$2 \times 5 = 5 \times 2$$

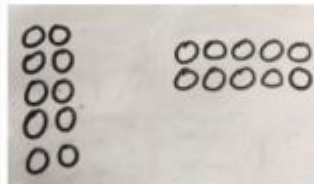


2 lots of 5



5 lots of 2

Children to represent the arrays pictorially.



Children to be able to use an array to write a range of calculations e.g.

$$10 = 2 \times 5$$

$$5 \times 2 = 10$$

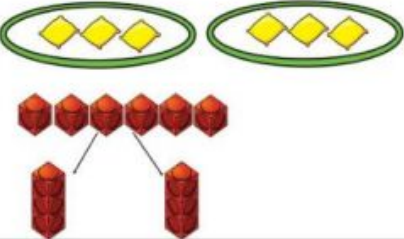
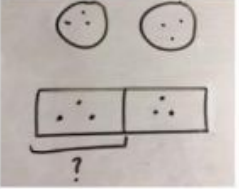
$$2 + 2 + 2 + 2 + 2 = 10$$

$$10 = 5 + 5$$

# Division

Vocabulary we use: share, group, divide, divided by, half.

All used by: Year 1 & Year 2

Concrete	Pictorial	Abstract		
<p>Sharing using a range of objects. <math>6 \div 2</math></p>  <p>The concrete representation shows 6 yellow diamonds grouped into 2 groups of 3. Below, 6 red cubes are shown in a single row, with lines indicating they are being divided into 2 groups of 3 cubes each.</p>	<p>Represent the sharing pictorially.</p>  <p>The pictorial representation shows 6 circles and 6 dots arranged in two rows of three. Below, two rectangles are shown, each containing 3 dots, with a bracket underneath and a question mark, indicating the sharing process.</p>	<p><math>6 \div 2 = 3</math></p> <table border="1" data-bbox="950 412 1213 456"><tr><td>3</td><td>3</td></tr></table> <p>Children should also be encouraged to use their 2 times tables facts.</p>	3	3
3	3			

