



Maths at Kingshill

Maths Lead - Miss Holly
Turner

Our Aims

To create confident and flexible Mathematicians.

For children to have a solid foundation in Maths.

For children to have a deep understanding on Mathematical concepts.

For children to apply their mathematical knowledge and skills.

To actively engage children in Maths.

And most importantly...

For children to enjoy Maths.

White Rose



We use the White Rose scheme of work as a guideline.

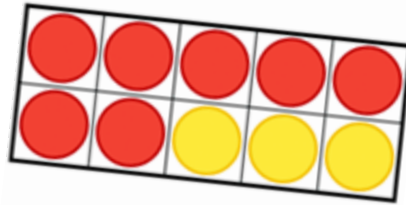
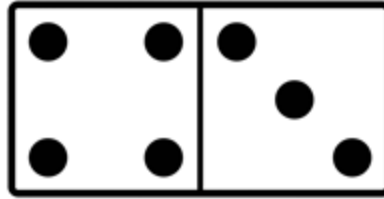
It uses a small steps approach.

It's an inclusive approach which allows the children to reach their full potential.

It allows for reasoning opportunities.

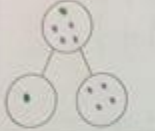


It ensures the children move through the concrete stage, followed by the pictorial stage, finishing with the abstract stage.

Concrete - using physical objects



Pictorial - using pictures/drawings

CE To understand the commutative law ✓ 17/10

My Part-Whole Model	My number sentences
	$1 + 4 = 5$ $4 + 1 = 5$
	$2 + 2 = 4$ $2 + 2 = 4$
	$5 + 2 = 7$ $2 + 5 = 7$

1 Draw counters to represent each calculation. ✓

a) $13 + 3 = 16$ ✓

0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0

b) $4 + 9 = 13$ ✓

0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0

c) $15 - 1 = 14$ ✓

0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0

d) $20 - 12 = 8$ ✓


0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0

Pictorial - using pictures/drawing


Complete the number sentences.

a)



$24 + 10 = 34$ ✓

b)



$35 + 20 = 55$ ✓

Handwritten student work showing a grid of four addition problems, each with a pictorial representation using lines and circles.

$34 + 30 = 64$ Pictorial: 34 lines and 30 circles ✓	$22 + 40 = 62$ Pictorial: 22 lines and 40 circles ✓	$52 + 20 = 72$ Pictorial: 52 lines and 20 circles ✓	$48 + 30 = 78$ Pictorial: 48 lines and 30 circles ✓
$54 + 30 = 84$ Pictorial: 54 lines and 30 circles ✓	$42 + 20 = 62$ Pictorial: 42 lines and 20 circles ✓	$64 + 20 = 84$ Pictorial: 64 lines and 20 circles ✓	$98 + 30 = 128$ Pictorial: 98 lines and 30 circles ✓

Abstract

LI To find number bonds to $\frac{10}{1/11}$

$0+10=10$ ✓
 $1+9=10$ ✓
 $2+8=10$ ✓
 $3+7=10$ ✓ *Now by this*
 $4+6=10$ ✓ $3+7=10$ ✓
 $5+5=10$ ✓ $5+5=10$ ✓
 $6+4=10$ ✓ $4+6=10$ ✓
 $7+3=10$ ✓ $3+7=10$ ✓
 $8+2=10$ ✓ $2+8=10$ ✓
 $9+1=10$ ✓ $1+9=10$ ✓
 $10+0=10$ ✓

Alexander
George W.

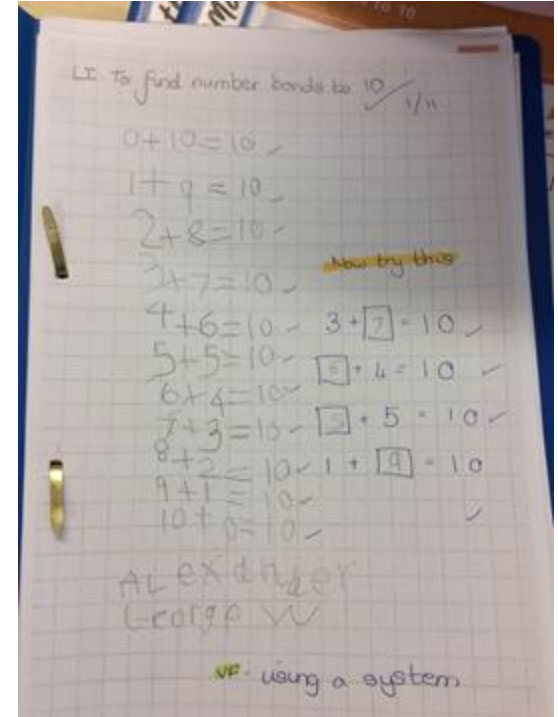
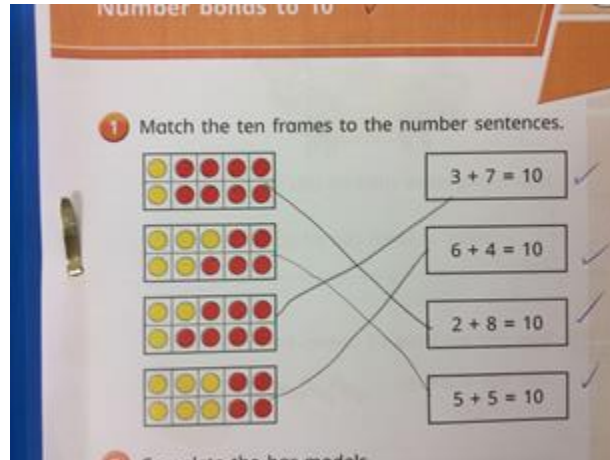
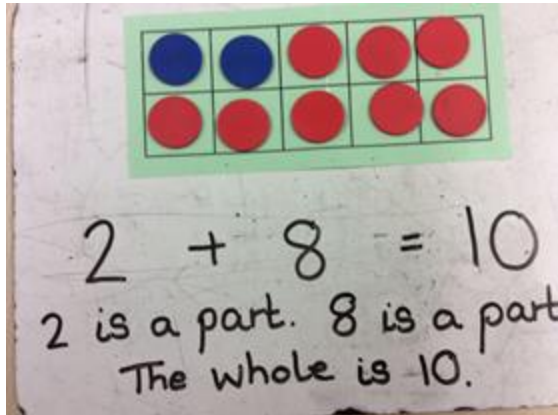
VP - using a system.

LI To add a one digit number to a two digit number crossing the ten (buffering)

$\begin{array}{r} 48 \\ +5 \\ \hline 53 \end{array}$	$\begin{array}{r} 64 \\ +8 \\ \hline 72 \end{array}$
$\begin{array}{r} 75 \\ +7 \\ \hline 82 \end{array}$	$\begin{array}{r} 36 \\ +6 \\ \hline 42 \end{array}$
$\begin{array}{r} 45 \\ +9 \\ \hline 54 \end{array}$	$\begin{array}{r} 21 \\ +7 \\ \hline 28 \end{array}$
$\begin{array}{r} 33 \\ +8 \\ \hline 41 \end{array}$	$\begin{array}{r} 59 \\ +3 \\ \hline 62 \end{array}$

Progressing between the stages

Each skill is revisited and built upon



Nursery

The main focus is **talking about Maths**.

Notice - patterns in the world around you.

- Shape
- colours
- Amounts
- Numbers

Subitising - recognising numbers without counting.



In Reception your child will focus on . . .

- Representing numbers (starting with number up to 5) - 5 could be represented by 5 dots, or you could have 5 pencils, or you could may have 5 buttons. Whatever representation you are looking it you still have 5.
- Number composition - Numbers can be made in different ways. 5 could be made using 2 and 3 or 4 and 1.
- Number bonds for numbers up to and including 5.
- Number comparisons - using more or less.

In year 1 your children will focus on . . .

- Number composition -e.g. 8 may be partition into 2, 5 and 1.
- Comparing numbers - greater than, less than and equal to.
- Addition and Subtractions for numbers up to 10.
- Counting in 2s, 5s and 10s.

Year 2

-Place Value - partitioning two digit numbers into tens and ones. $36 = 3$ tens and 6 ones or 2 tens and 16 ones.

-Addition and subtraction with 2 digit numbers.

$$34 + 44 = \quad 57 + 25 = \quad 28 - 12 = \quad 63 - 26 =$$

-2, 5 and 10 times tables.

Maths Fluency

This is retrieval of previously learnt concepts.

A little bit each day.

Encourages recall of number facts.

Includes counting, subitising, number sentences and different representations.

We have Maths fluency sessions daily but encourage this at home.

Maths Fluency

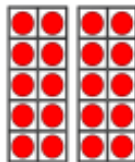
Flashback 4

Year 2 | Week 1 | Day 1

1) How many dots?



12



2) What time is shown on the clock?



3 o'clock

3) What is the total value of the coins?



60p

4) What is half of 18? 9

How can you support your child?

Encourage your child to talk about Maths in everyday life.

- How many buttons are on your coat? What if one fell off?
- How many wheels does your bike have? How many wheels would there be on 3 bikes?

What do you see? How do you see it? Can you see it in a different way?

- Drop a handful of pasta on a plate and ask the above question. This can lead to discussions about shape, about patterns and subitising.



Talking about numbers

Make a tower of lego bricks using two colours.

Ask -

EYFS - what do you notice about your tower? How many bricks are in your tower?

Year 1 - What parts can you see? What calculation does this represent? Can you write the number sentence?

Year 2 - If we know this, what else do we know?



Other suggestions

Playing board games

Going for walks with a list of things to collect e.g. we need 3 sticks, 4 acorns and a leaf. How many items did we collect? What if we dropped an acorn how many acorns would we have?

Playing shops

Baking

Looking at door numbers - what number is it? How many tens and ones? What is ten more than that number? 1 more?

Resources we use

Counting objects

Base 10

Bead strings

Number lines

Cubes

Ten Frames and Counters

Part-Whole mats