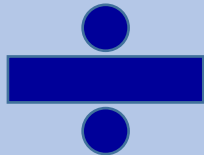
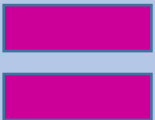


Maths in Key Stage 1

Y1 and Y2

Everyday the children have:

- ❖ A maths fluency lesson (20 mins)
- ❖ A main maths lesson (45mins)



DAILY FLUENCY LESSONS in Year 1 and 2

To practise key number skills taught in previous main maths lessons while encouraging talk about maths

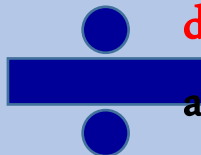
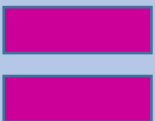
Types of fluency activities include: COUNTING PRACTISE

SOLVING CALCULATION PROBLEMS

GAMES

QUIZZES/TESTS

In fluency lessons we use **objects, pictures, drawings, number lines** and **100 squares** and once secure move to **mental strategies**.



COUNTING PRACTISE

Counting to 100 and beyond, forwards and backwards from any given number

Counting in multiples of 2, 5 and 10 (Y2 backwards and in multiples of 3)

Activities include:

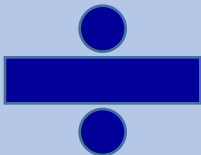
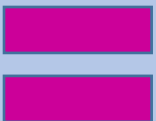
Oral Counting Activities

- ❖ As a whole class, in pairs, ping-pong style!
- ❖ Counting Games

Written Counting Activities

- ❖ Continuing sequences **5, 10, 15, 20,** _____, _____, _____, _____
- ❖ Filling in gaps in a sequence **12, 14,** _____, _____, **20,** _____
- ❖ Finding missing numbers on a 100 square

38		40			46
				55	
58		60		64	
		9		43	
	18			53	
27				63	



Talk about 'What it's not!'

- ❖ What's wrong - **72, 71, 70, 89?** Why?
- ❖ Which is the odd one out – **2, 6, 3, 12**

SOLVING CALCULATION PROBLEMS

To reinforce knowledge of:

- ❖ number facts to 10 & then 20
- ❖ doubles & halves
- ❖ Y2 simple multiplication & division facts (2, 5 and 10)

Lots of practise solving problems set out in traditional formats

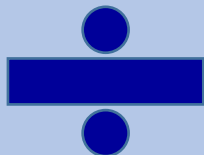
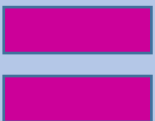
e.g. $6 + 5 = \underline{\quad}$ $\underline{\quad} = 9 + 4$

$15 - 3 = \underline{\quad}$ $\underline{\quad} = 10 - 6$

$7 + 7 = \underline{\quad}$ $\underline{\quad} = 9 + 9$

$3 \times 5 = \underline{\quad}$ $\underline{\quad} = 10 \times 2$

$20 \div 2 = \underline{\quad}$ $\underline{\quad} = 10 \div 2$



SOLVING CALCULATION PROBLEMS Continued

Other calculation activities include:

Providing the answer for the children to work out the questions.

$2 \times 4 \quad 4 \times 2$

$5 + 3$

$7+1 \quad 1+7$

$20 - 12$



$4+4$

$68 - 60$

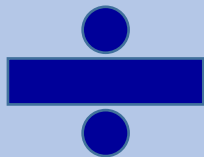
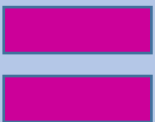
$2+2+2+2$

$10 - 2$

$100-92$

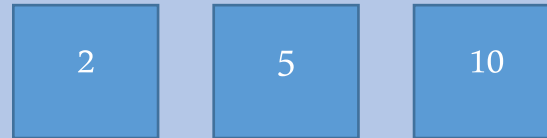
$16 \div 2$ (shared between or half)

Great to promote a curiosity and desire to find as many calculations as possible!



SOLVING CALCULATION PROBLEMS Continued

Providing numbers for the children to find possible calculations



What calculations can you make?

$$2 + 5 = 7$$

$$2 + 10 = 12$$

$$10 + 5 = 15$$

$$5 - 2 = 3$$

$$10 - 5 = 5$$

$$10 - 2 = 8$$

$$10 + 5 + 2 = 17$$

$$10 - 5 - 2 = 3$$

$$10 - 5 + 2 = 7$$

$$10 - 2 + 5 = 13$$

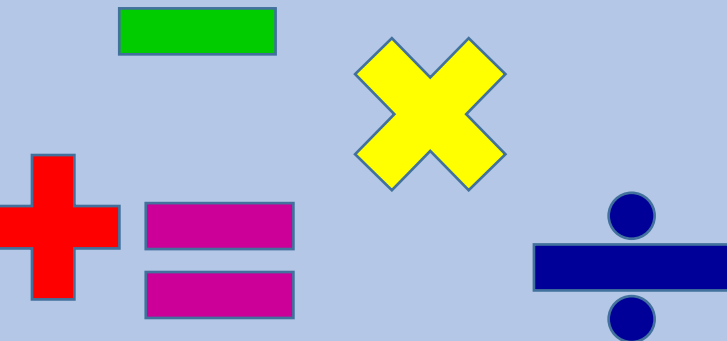
$$10 \times 5 = 50$$

$$10 \div 2 = 5$$

$$2 \times 10 = 20$$

$$10 \div 5 = 2$$

Once again, great to promote interest - finding all the possibilities



SOLVING CALCULATION PROBLEMS Continued

Missing number problems to solve

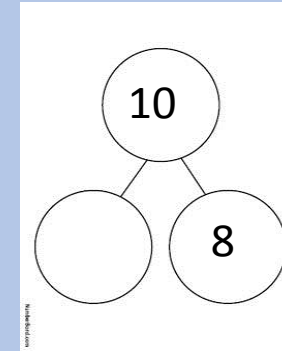
$8 + \underline{\quad} = 10$

$\underline{\quad} + 6 = 10$

$12 - \underline{\quad} = 9$

$\underline{\quad} - 8 = 10$

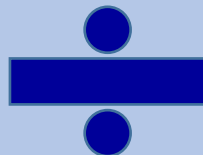
20	
?	11



In all calculation activities, we provide opportunities to talk about 'what it's not'

20	
? 10	11

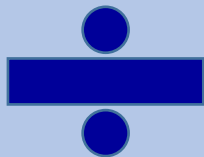
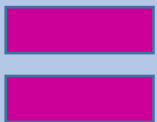
IS THIS CORRECT?
EXPLAIN



MAIN MATHS LESSON in Year 1 and 2

INTRODUCTION - teaching and practising of a key skill, while
developing mathematical language

REASONING and PROBLEM SOLVING - to deepen learning



ADD BY COUNTING ON – Year 1 lesson

Introduction

- ❖ Reminded the children that addition can be done in any order (commutative)

$$4 + 7 = 11 \text{ same as } 7 + 4 = 11$$

- ❖ Taught the key skill of counting on - with objects, in our heads and on a number line

To solve

$$4 + 7 = \underline{\quad}$$

we hold 7 in our head...

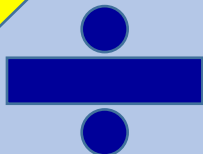
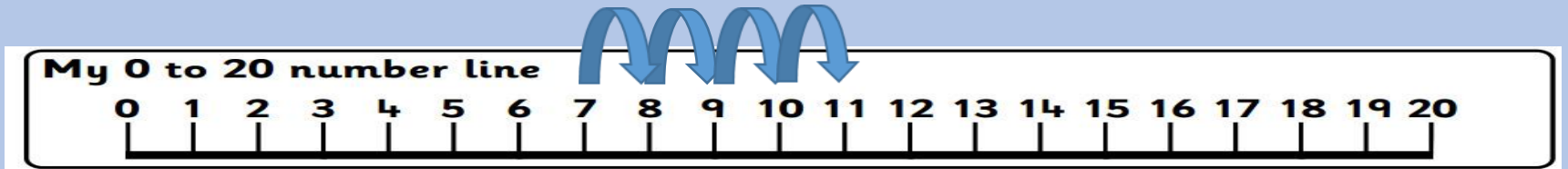


and **count on 4** more



8 9 10 11

So, they've been given a starting number and given an amount to count on to find a total.

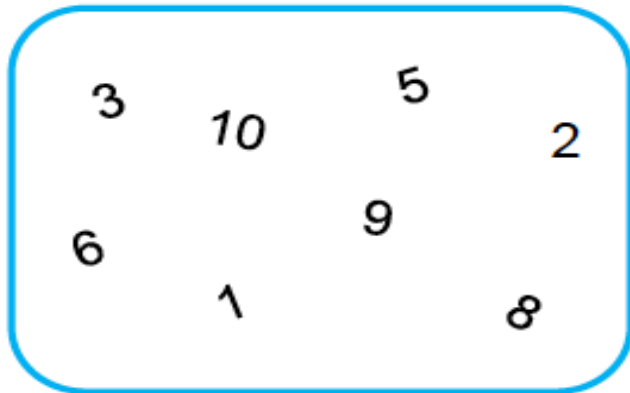


PROBLEM SOLVING AND REASONING to deepen learning

Ralph is thinking of the number 11

Which number does he choose out of the box to make:

- 14
- 19
- 12



Now, moving on

From $11 + 3 = \underline{\quad}$ to $11 + \underline{\quad} = 14$

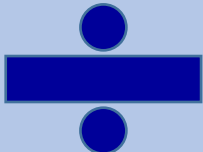
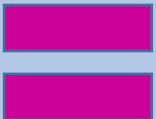
Reasoning questions for this task

- Which numbers couldn't be chosen? WHY?
- or $11 + 4 = 14$ How do you know?
- Can they use their knowledge of addition facts to help explain?

When solving $11 + 3 = 14$

$$1 + 3 = 4 \text{ so } 11 + 3 = 14$$

Questions are important!



Mistakes are valuable!

PROBLEM SOLVING AND REASONING to deepen learning

A one-digit number is added to a two-digit number.
The answer is 18

First	Then	Now
<input type="text"/>	<input type="text"/>	18

What could the missing numbers be?

What could the starting number be?

8 ways

What **couldn't** it be? Why not?

17 + 1

How many possibilities?

16 + 2

Can they **spot a pattern** when

15 + 3

trying to find all the solutions?

14 + 4

13 + 5

12 + 6

11 + 7

10 + 8

As well as promoting a desire to find all the possibilities, it also encourages the children to work in a systematic way.

Further challenge posed was – If I know there are 8 possibilities for 18, how many possibilities if the total was 19 or 20?

