

Numeracy

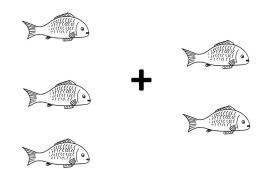
Our addition, subtraction, multiplication and division methods

Longfields Primary School

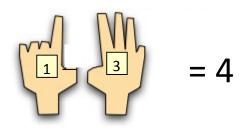
Addition



Using Objects:

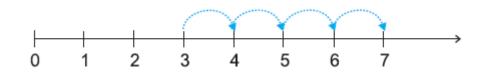


Using Fingers:

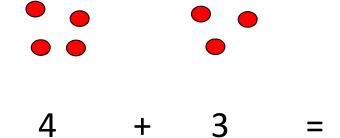


Number lines:

$$3 + 4 = 7$$

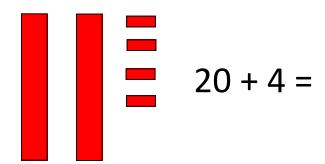


Write as number sentence:

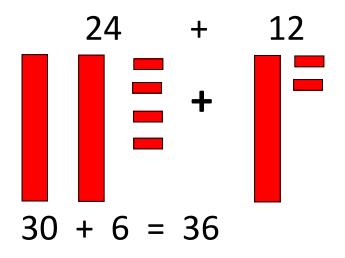


Place Value:

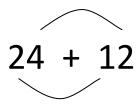
(Use of dienes)



Counting Tens and Units 1:



Counting Tens and Units 2:



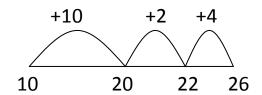
$$20 + 10 = 30$$

$$4 + 2 = 6$$

$$30 + 6 = 36$$

Partitioning with number line:

$$12 + 14 = 10 + 10 + 2 + 4 = 26$$



Compact Vertical Method:

The extra space between the sum and the answer is deliberate (see next method)

Compact Vertical Method Crossing Barriers:

Crossing the tens/hundreds/thousands barrier – in this method the extra amount is placed above the answer

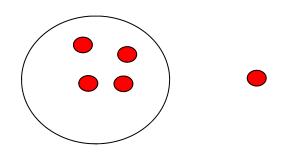
$$136 + 291$$

Here the one at the bottom of the hundreds column has been from the hundred when adding 90 and 30

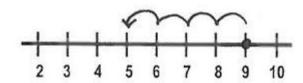
Longfields Primary School Subtraction



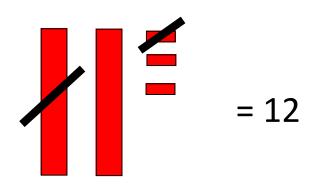
1 less—using objects if needed



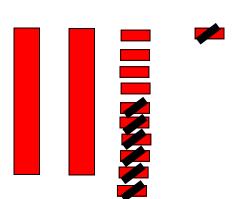
Count back on a number line:



Do visually with objects and then:



Cross tens barrier by exchanging:



= 31 - 7

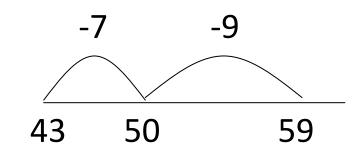
Using a number line to count on:



$$7 + 9 = 16$$

59 - 43

Using a number line to count back:



Compact Vertical Method:

Longfields Primary School

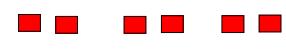
Multiplication and Division



Counting in 2's, 5's and 10's and

Repeated Addition

$$3 \times 2 =$$



2

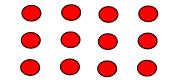
4

6

So
$$2 + 2 + 2 = 6$$
 And $3 \times 2 = 6$

All using visual/concrete methods

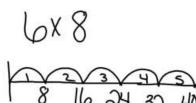
Arrays



$$4 \times 3 = 3 \times 4$$

$$4 \times 3 = 12$$

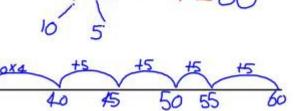
Bunny Hop



Mental:



x1000

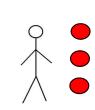


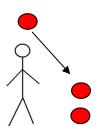
Grid Method—begin with 2 digits by 1 digit

	Χ	20	7	
	50	1000	350	1350
•	6	120	42	162
		'		1
				1512

With Apparatus

$$6 \div 2 = 3$$

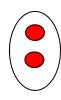


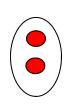


Grouping—link to tables

How many 2s in 6?:



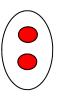




2 :

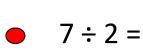
Grouping with remainders

How many 2s in 7?:





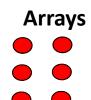




1

2

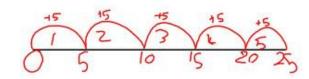
3 r 1



 $12 \div 3 = 4$

1 2 3 4

Number lines:



Using Tables:

91 ÷ 7

10 x 7 = 70

 $3 \times 7 = 21$

So

13 x 7 = 91

And

91 ÷ 7 = 13

Short Division:

To be explained by partitioning when teaching then:

$$\begin{array}{c|c}
9 & 7 \\
3 & 29^2 & 1
\end{array}$$