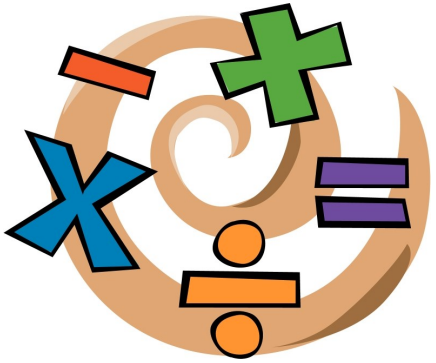
Monks Risborough
Church of England Primary School

'A learning community - encouraging success, celebrating achievement, strengthened by God'

Year 3 and 4

Curriculum Mathematics Evening



The main focus of mathematics teaching in lower Key Stage 2 is to ensure that children become **increasingly fluent with whole numbers and the four operations**, including number facts and the concept of place value. This should ensure that children develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, children develop their ability to **solve a range of problems**, including with simple fractions and decimal place value.

By the end of year 4, pupils should have memorised their **multiplication tables up to and including the 12 multiplication table** and show precision and fluency in their work.

Pupils should **read and spell mathematical vocabulary correctly** and confidently, using their growing word-reading knowledge and their knowledge of spelling.

Useful Websites

www.ictgames.com

www.bbc.co.uk/schools

www.crickweb.co.uk

www.counton.org

www.mad4maths.com

www.maths-games.org

www.topmarks.co.uk

www.mathletics.co.uk

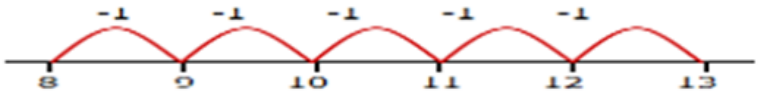
www.activelearnprimary.co.uk

Subtraction

Number line

Using number lines to count back in ones.

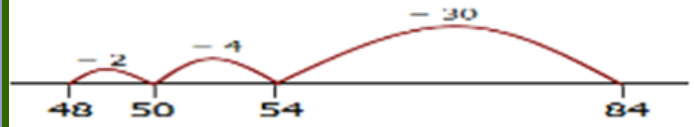
13 – 5 =8



Empty number line-count back

Efficient jumps (can also jump in 10/1s)

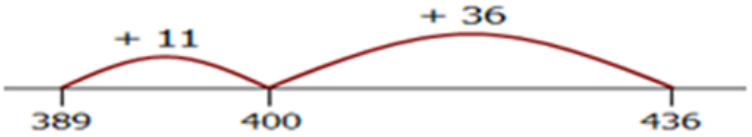
Taking away 84 - 36 = 48



Empty number –finding the difference

Subtracting by adding (counting up from the smaller number to the larger)

436 - 389 = 47



Stage 5

Decomposition method

1374 - 968 = 406

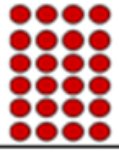
$$\begin{array}{r} {}^{\not 6}\not{1}\,{}^{1}\not{3}\,{}^{1}7\,4 \\ -\;\;9\;6\;8 \\ \hline 4\;0\;6 \end{array}$$

Multiplication

Arrays

Arrays and repeated addition

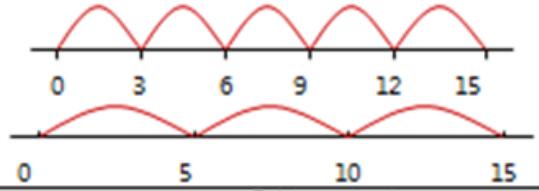
6x4 or 4x6



Number line

Number lines

e.g. 3x5=15



Grid method

Partitioning

36x4=144

30 x 4 = 120

6 x 4 = 24

X	30	6
4	120	24

Vertical method

Formal method of multiplication

$$\begin{array}{r} 43 \\ \times\ 6 \\ \hline 18 \quad (3 \times 6) \\ 240 \quad (40 \times 6) \\ \hline 258 \end{array}$$

$$\begin{array}{r} 3\;4\;2 \\ \times\quad\;\; 7 \\ \hline 2\;3\;9\;4 \\ \hline {\scriptstyle 2\;\;1} \end{array}$$

Division

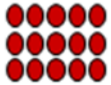
Pictures

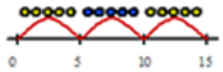
Pupils use concrete objects and pictorial representations



Arrays and multiplication facts

15 ÷ 5 = 3





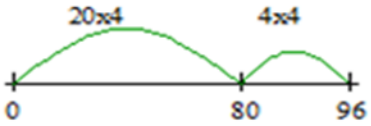
How many 5's make 15?

5 x 2 = 15 5 x 3 =15

Number line

Using known multiplication facts

96÷4=24



Short division

Multiples of the divisor

98 ÷ 7 = 14

10 x 7 = 70
4 x 7 = 28

Progress to

$$\begin{array}{r} 1\ 4 \\ 7\overline{)\,9\ 8} \\ {\scriptstyle 2} \end{array}$$

Chunking

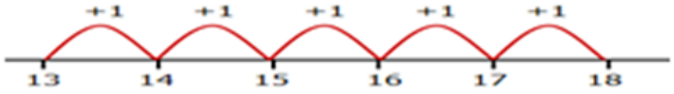
$$\begin{array}{r|l} 6 & 882 \\ -\ 600 & 6 \times 100 \\ \hline & 282 \\ -\ 240 & 6 \times 40 \\ \hline & 42 \\ & 42 \quad 6 \times 7 \end{array}$$

Addition

Number line

Using number lines to count in ones

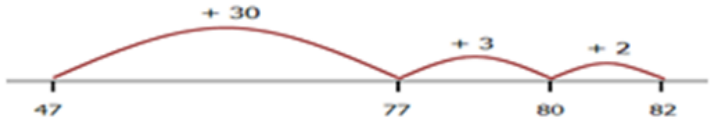
13+5=18



Empty number line

Efficient jumps (can also jump in 10/1s)

47+35= 82



Expanded column method

Partitioning numbers (without number line/ pictorial representation)

35 + 47 = 82

40 + 7
+30 + 5

70 + 12=82

Progress to:

35
+47
12
+ 70
82

Compact column method

Formal method showing numbers carried underneath

$$\begin{array}{r} 374 \\ +\ 248 \\ \hline 622 \\ {\scriptstyle 1\ 1} \end{array}$$