Tatham Fells CE (VC) Primary Calculation Policy Appendix A

We derive our policy from our Mission Statement 'Roots to Grow, Wings to Fly, Faith to Flourish'. We encourage children to build skills and develop the confidence to use them independently. We use the Mathematics scheme INSPIRE throughout the school with Numicon used in the early years. We encourage concrete methods to be used by children to gain confidence throughout the school.

Stage 1

Pupils use concrete objects and pictorial representations

Stage 1

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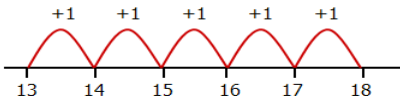
Stage 2

Using number lines to count in ones

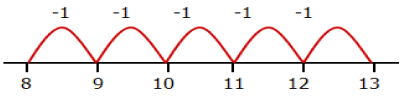
13+5=18



Stage 2

Using number lines to count back in ones.

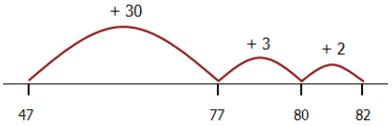
13 – 5 =8



Stage 3

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

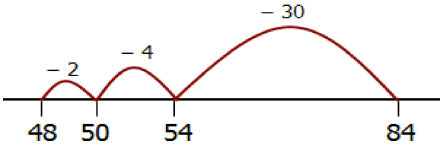
47+35= 82



Stage 3

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

Taking away 84 - 36 = 48



Stage 4

Partitioning (without number line/ pictorial representation)

35 + 47 = 82

30+40+5+7

70 + 12=82

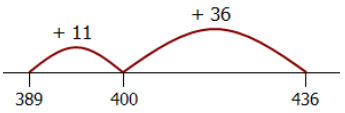
Progress to:

35
+47
12
+ 70
82

Stage 4

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

436 - 389 = 47



Stage 5

Formal method showing numbers carried underneath

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

Extend to numbers with any number of digits and decimals with 1 or 2 decimal places.

Stage 5

Decomposition method

1374 - 968 = 406

1000 and 300 and 70 and 4
- 900 and 60 and 8

1300 and 60 and 14
- 900 and 60 and 8
id 6

Progress to: Formal written method

$$\begin{array}{r} {}^{6}\cancel{13}{}^{1}74 \\ -\ 968 \\ \hline 406 \\ \hline \end{array}$$

Extend to numbers with any number of digits and decimals with 1 or 2 decimal places.

Stage 1

Pupils use concrete objects and pictorial representations

How many socks in three pairs?

Stage 1

Pupils use concrete objects and pictorial representations

6 cakes are shared between 3 people. How many cakes does each person get?

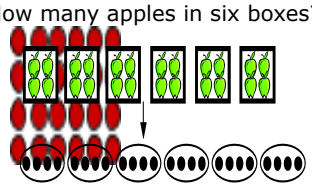
Stage 2

Arrays and repeated addition

6x4 or 4x6

There are four apples in each box.

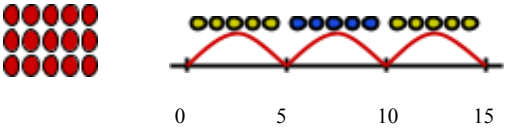
How many apples in six boxes?



Stage 2

Visual

15 ÷ 5 = 3

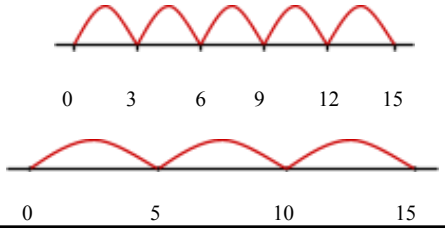


How many 5's make 15?

Stage 3

Number lines 'skip counting'

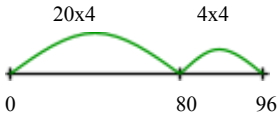
e.g. 3x5=15



Stage 3

Using known multiplication facts

96÷4=24



Stage 4

Partitioning

36x4=144

or grid method

30 x 4 = 120

6 x 4 = 24

X	30	6
4	120	24

Stage 4

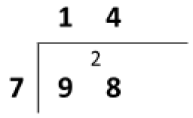
Multiples of the divisor

98 ÷ 7 = 14

Progress to

10 x 7 = 70

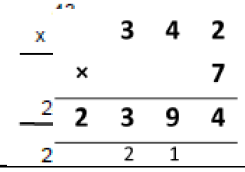
4 x 7 = 28



Stage 5

Formal method of multiplication

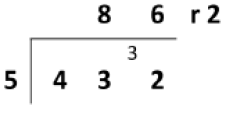
Progress to short multiplication



Stage 5

432 ÷ 5 = 86 r2

(estimate: 400 ÷ 5 = 80)

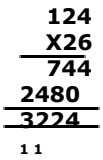


Divide numbers up to 4 digits and decimals with 2 decimal places.

Stage 6

Formal Method of long multiplication

124x26



Stage 6

Formal Method of long division

432÷15