

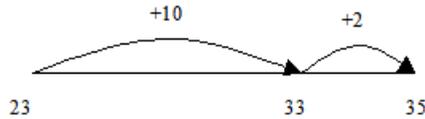


Hotspur Primary School
Calculation Policy-Year 2

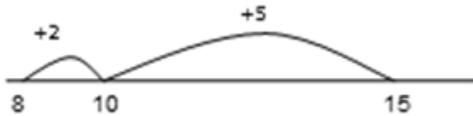
Addition and Subtraction

Children should begin to use empty number lines, they can count in tens and ones.

$$\begin{aligned} 23 + 12 &= 23 + 10 + 2 \\ &= 33 + 2 \\ &= 35 \end{aligned}$$



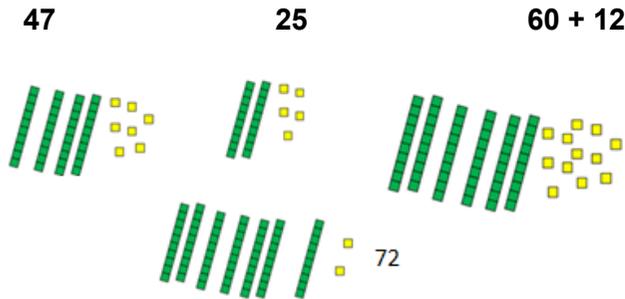
Addition will often bridge through a multiple of 10 so the children may need to partition a number to each the multiple of 10.



Children will also add 9 and 11 by adding 10 and adjusting.

The children will move towards a more formal written method using dienes or pictures as support.

$$47 + 25$$



This leads to exchanging.

Then children can use the expanded written method.

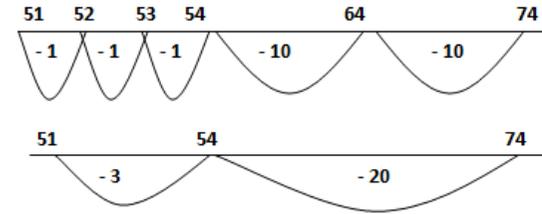
Children should continue to do

missing number calculations, partition numbers in different ways and check answers using the inverse.

$$\begin{array}{r} 40 + 7 \\ + 20 + 5 \\ \hline 60 + 12 = 72 \end{array}$$

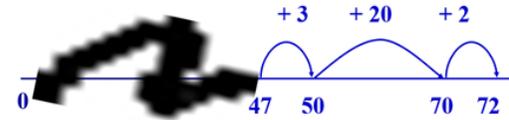
Children will continue to use numberlines to take away. First counting back in tens and single units. The children may need to begin by jumping in single 10s before being able to jump in groups of 10s, eg 20 or 30 in one go:

$$74 - 23 =$$



Children will also continue to find the difference using

numberlines to count on. The difference between 72 and 47.



100 squares can be used to model

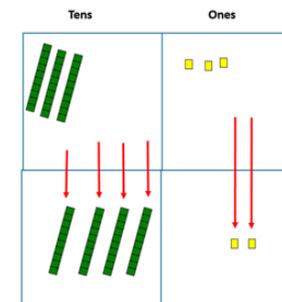
calculations and explore patterns.

Particularly subtracting 9 and 11 then partitioning teens numbers to subtract e.g 36 - 14, subtract 10, down 1 and across 4.

91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

Children will begin to explore

Expanded subtraction using dienes for support.



$$\begin{array}{r} 70 \\ - 40 \\ \hline 30 \end{array}$$

Multiplication and Division

Children will continue to develop their understanding of multiplication as repeated addition and use arrays to represent multiplication. This may extend to numbers outside twos, fives and tens.

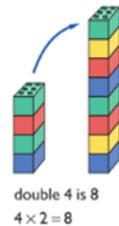


Children will record multiplication as a number sentence and will develop understanding of commutativity and the inverse to solve missing number problems.

$7 \times 2 = \square$	$\square = 2 \times 7$
$7 \times \square = 14$	$14 = \square \times 7$
$\square \times 2 = 14$	$14 = 2 \times \square$
$\square \times \square = 14$	$14 = \square \times \square$

They will continue to develop understanding of scaling. Children will apply knowledge of doubling to double two digit numbers using jottings.

16	
10	6
x2	x2
20	12



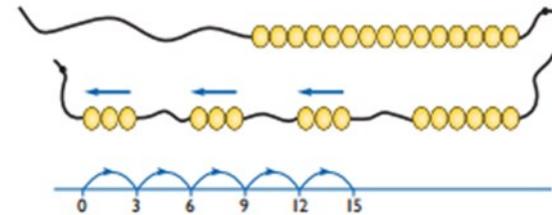
Children will practise their 2, 5 and 10 timestables—red, orange and yellow Rainbow tables.

Children will be introduced to the \div sign. They will continue to use sharing and grouping using practical apparatus, arrays and pictorial representations.

Children will become more confident in counting back in jumps of 2, 3, 5 and 10 and begin to use repeated subtraction.

Children may also use a numberline to jumps in groups from 0.

$$15 \div 3 = 5$$



Children use arrays division and multiplication as the inverse. to show

Children use knowledge of the inverse to help solve missing number calculations.

$6 \div 2 = \square$	$\square = 6 \div 2$
$6 \div \square = 3$	$3 = 6 \div \square$
$\square \div 2 = 3$	$3 = \square \div 2$
$\square \div \square = 3$	$3 = \square \div \square$

Children will continue to find $1/2$, $1/4$ and $1/3$ s of shapes, objects and numbers, relate finding a fraction of something to sharing.