

St Ignatius RC Primary School

Calculation Policy

Addition



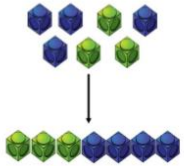
Concrete

Pictorial

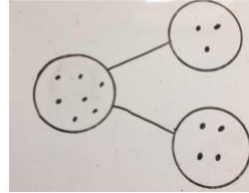
Abstract

Combining two parts

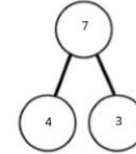
Combining two parts to make a whole (use other resources too e.g. eggs, shells, teddy bears, cars).



Children to represent the cubes using dots or crosses. They could put each part on a part whole model too.

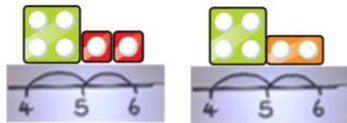
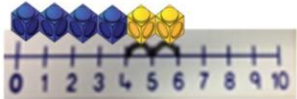


$4 + 3 = 7$
Four is a part, 3 is a part and the whole is seven.

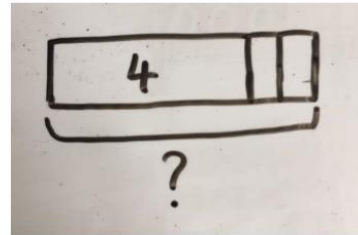


Counting on using a numberline

Counting on using number lines using cubes or Numicon.



A bar model which encourages the children to count on, rather than count all.

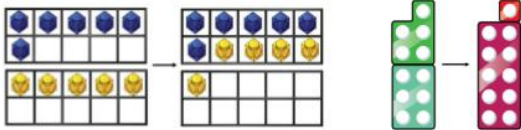


The abstract number line:
What is 2 more than 4?
What is the sum of 2 and 4?
What is the total of 4 and 2?
 $4 + 2$

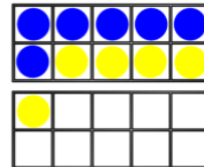


Regrouping to make 10

Regrouping to make 10; using ten frames and counters/cubes or using Numicon.
 $6 + 5$



Children to draw the ten frame and counters/cubes.



Children to develop an understanding of equality e.g.

$$6 + \square = 11$$

$$6 + 5 = 5 + \square$$

$$6 + 5 = \square + 4$$

Two digits add single digit

TO + O using base 10. Continue to develop understanding of partitioning and place value.
 $41 + 8$

Children to represent the base 10 e.g. lines for tens and dot/crosses for ones.

$41 + 8$

$1 + 8 = 9$
 $40 + 9 = 49$

Two digits add two digits

TO + TO using base 10. Continue to develop understanding of partitioning and place value.
 $36 + 25$

Children to represent the base 10 in a place value chart.

Looking for ways to make 10.

$36 + 25 =$

$30 + 20 = 50$
 $5 + 5 = 10$
 $50 + 10 + 1 = 61$

1 5 36

Formal method:

$$\begin{array}{r} +25 \\ 36 \\ \hline 61 \\ 1 \end{array}$$

HTO + TO and HTO + HTO

Use of place value counters to add HTO + TO, HTO + HTO etc. When there are 10 ones in the 1s column- we exchange for 1 ten, when there are 10 tens in the 10s column- we exchange for 1 hundred.

Children to represent the counters in a place value chart, circling when they make an exchange.

$$\begin{array}{r} 243 \\ +368 \\ \hline 611 \\ 1 \end{array}$$