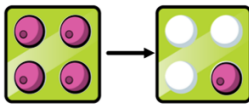




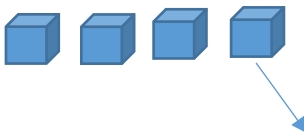





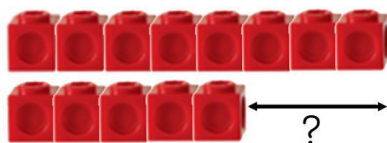
Subtraction Routeway

| Key Vocabulary: take away, less than, the difference between, subtract, minus, fewer, decrease | | |
|---|--|---|
| Concrete | Pictorial | Abstract |
| <p>Physically taking away and removing objects from a whole (ten frames, cubes and other items such as bean bags could be used).</p> <p>$4 - 3 = 1$</p>   |   <p>Simple Bar model</p>  | <p>$4 - 3 =$</p> <p><input type="text"/> = $4 - 3$</p> |
| <p>Counting back</p> <p>$4 - 3 = 1$</p>  <p>Children to count back when taking away each object.</p> | <p>Children to represent what they see pictorially e.g.</p>  <p>Children to represent the calculation on a number line or number track and show their jumps.</p>  | <p>Encourage the children to use an empty number line.</p>  |

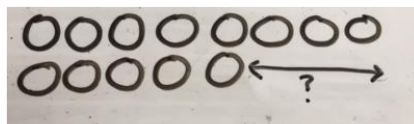
Subtraction Routeway

Finding the difference (using cubes, Cuisenaire rods, other objects can also be used).

Calculate the difference between 8 and 5.



Children to draw the cubes/other concrete objects which they have used to illustrate what they need to calculate.

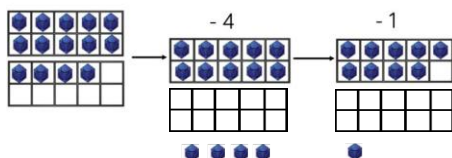


Find the difference between 8 and 5.

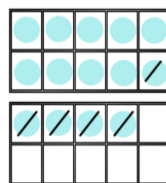
8 – 5 the difference is

Making 10 using tens frames

14-5 =



Children to present the tens frame pictorially and discuss what they did to make 10.



Children to show how they can make 10 by partitioning the subtrahend.

$$14 - 5 = 9 \quad 17 - 3 = 14$$

$$\begin{array}{c} 5 \\ / \quad \backslash \\ 4 \quad 1 \end{array} \quad \begin{array}{c} 3 \\ / \quad \backslash \\ 10 \quad 7 \end{array}$$

$$14 - 4 = 10$$

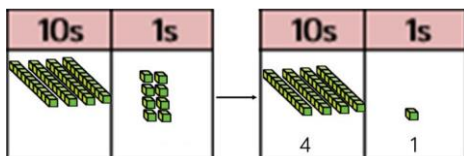
$$10 - 1 = 9$$

$$7 - 3 = 4$$

$$10 + 4 = 14$$

Column method using base 10.

48-7



Children to represent the base 10 pictorially.

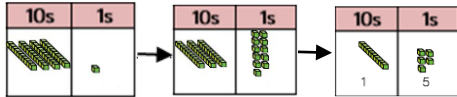


Children could count back 7.

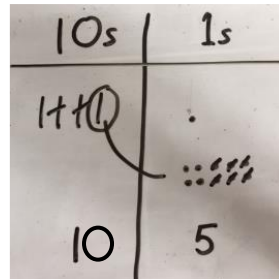
Subtraction Routeway

Column method using base 10 and having to exchange.

$$41 - 26 =$$

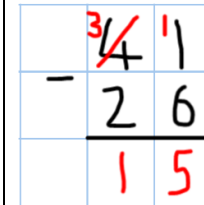


Represent the base 10 pictorially, remembering to show the exchange.



$$10 + 5 = 15$$

Formal column method. Children must understand that when they have exchanged the 10 they still have 41 because $41 = 30 + 11$.



Written method subtracting ones and tens.

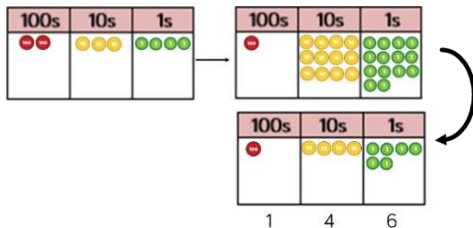
$$46 - 19 =$$

$$46 - 9 = 37$$

$$37 - 10 = 27$$

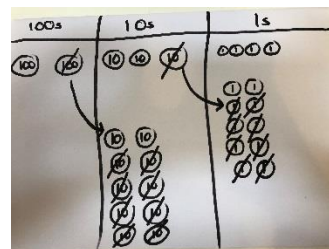
Column method using place value counters.

$$234 - 88 =$$



Represent the place value counters pictorially; remembering to show what has been exchanged.

$$234 - 88 =$$



$$100 + 40 + 6$$

Formal column method. Children must understand what has happened when they have crossed out digits.

$$\begin{array}{r} \overset{2}{2} \overset{1}{3} 4 \\ - 88 \\ \hline 6 \end{array}$$