

**Concrete**

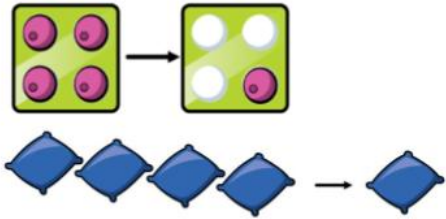
**Pictorial**

**Abstract**

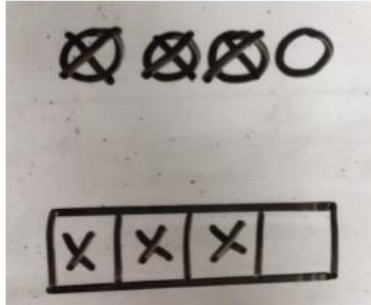
Physically taking away

Physically taking away and removing objects from a whole (ten frames, Numicon, cubes and other items such as beanbags could be used).


$4 - 3 = 1$

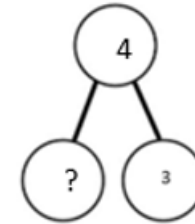
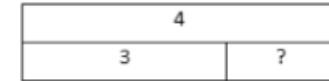


Children to draw the concrete resources they are using and cross out the correct amount. The bar model can also be used.



$4 - 3 =$

  $= 4 - 3$



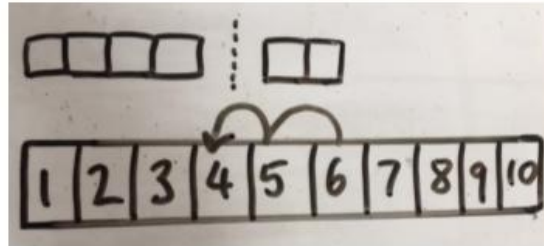
Counting back

Counting back (using number lines or number tracks) children start with 6 and count back 2.

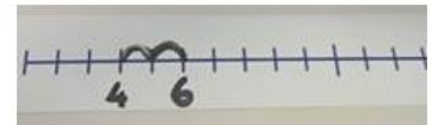
$6 - 2 = 4$



Children to represent what they see pictorially e.g.



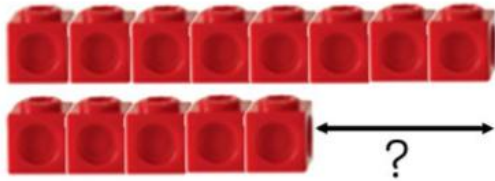
Children to represent the calculation on a number line or number track and show their jumps. Encourage children to use an empty number line



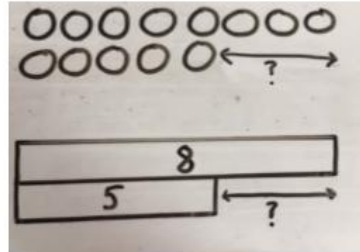
Finding the difference

**Finding the difference** (using cubes, Numicon or 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 or use the bar model to illustrate what they need to calculate.



Find the difference between 8 and 5.

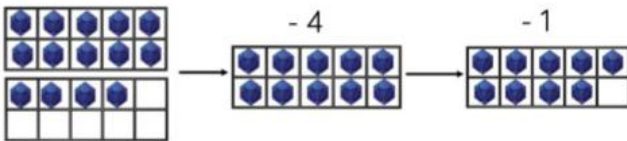
8 - 5, the difference is

Children to explore why  
 $9 - 6 = 8 - 5 = 7 - 4$  have the same difference.

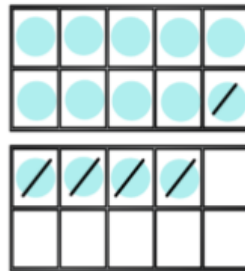
Making 10

**Making 10** using ten frames.

14 - 5



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



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

$$14 - 5 = 9$$

$$\begin{array}{c} 4 \quad 1 \end{array}$$

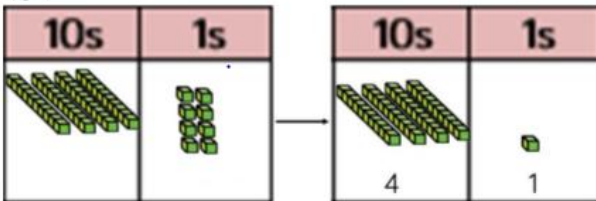
$$14 - 4 = 10$$

$$10 - 1 = 9$$

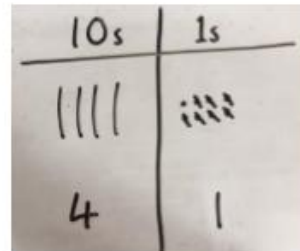
Column method

**Column method** using base 10.

48-7



Children to represent the base 10 pictorially.

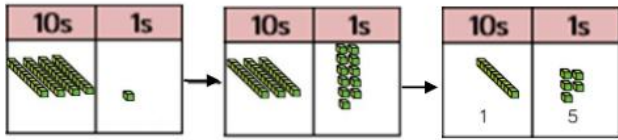


Column method or children could count back 7.

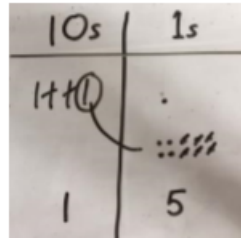
	4	8
-		7
	4	1

Column method with exchanging

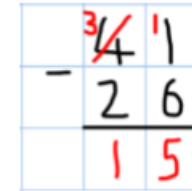
Column method using base 10 and having to exchange.  
41 - 26



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

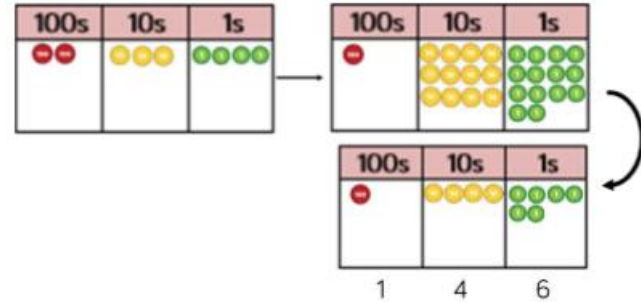


Formal column method. Children must understand that when they have exchanged the 10 they still have 41 because  $41 = 30 + 11$ .

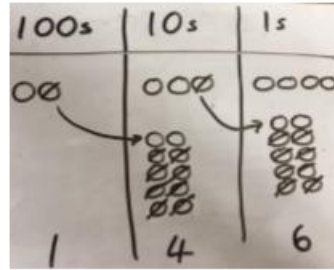


Column method with PV

Column method using place value counters.  
234 - 88



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



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

