

A stylized background featuring a tree with a brown trunk and green foliage, and a yellow sun in the upper right. The scene is set against a white background with green geometric shapes on the left and bottom.

Maths Parent Workshop

Subtraction

Wednesday 6th May 2015
Mr Clark and Mr Smith

Objectives



Today we will:

- Show you the process of how subtraction is taught at Park through the new calculation policy for each year group.
- Help increase your confidence with subtraction when helping your children at home.

Our Calculation Policy

Teachers at Park teach addition from our calculation policy.

In here it clearly states the different stages of each of the four operations.

This can be found on our website.

<http://www.park.newham.sch.uk/maths.html>

Calculation Policy **Park Primary School**



(Aligned with the 2014 National Curriculum)

Early Years

Subtraction - Early Stages (EYFS)

Children will engage in a variety of counting songs and rhymes and practical activities.

In practical activities and through discussion they will begin to use the vocabulary associated with subtraction.

They will find one less than a given number.

They will begin to relate subtraction to 'taking away' **using objects** to count 'how many are left' after some have been taken away.

$$6 - 2 = 4$$



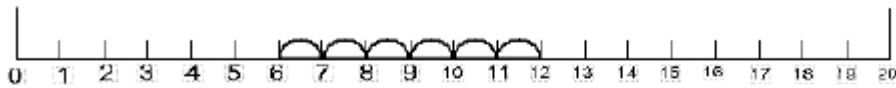
'Take two apples away. How many are left?'

Children will begin to count back from a given number.

Year 1

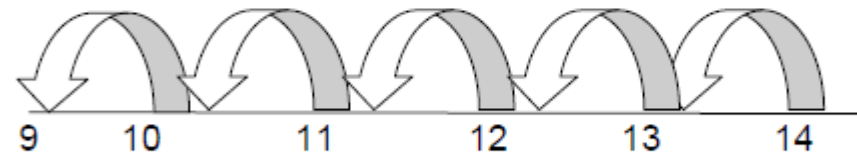
Then progress to a **marked number line**:

$$12 - 6 = 6$$



'Put your finger on number twelve and count back six.'

$$14 - 5 = 9$$



'Put your finger on number 14 and count back five.'

NB Ensure children are confident with using a **marked number line** before moving on to an empty number line (see year two guidance).

Continue to practise counting back for subtraction with numbers within 20.

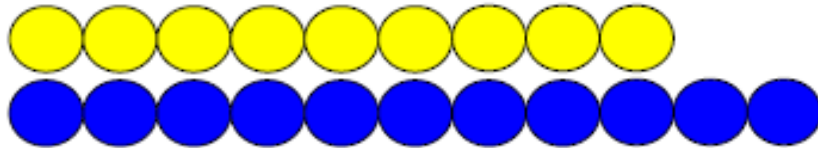
Year 1

Counting on to find a small difference:

Introduce complementary addition to find differences (only use for **small** differences). The use of models is extremely important here to understand the idea of “difference”.

Count up from the smallest number to the largest to **find the difference** using resources, e.g. cubes, beads, number tracks/lines:

$$11 - 9 = 2$$



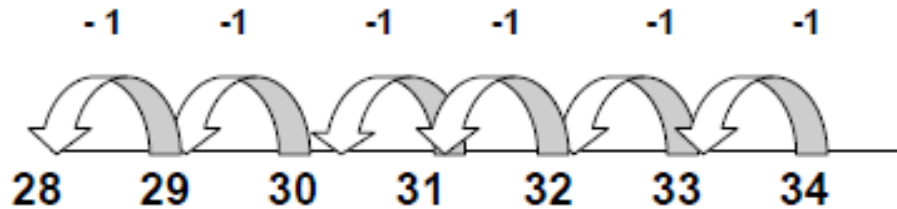
The **difference between** nine and eleven is two.

NB If, at any time, children are making significant errors, return to the previous stage in calculation.

Year 2

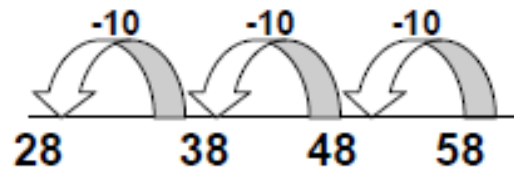
Counting back using an **empty number line** within 100, in ones...

$$34 - 6 = 28$$



...and in tens:

$$58 - 30 = 28$$

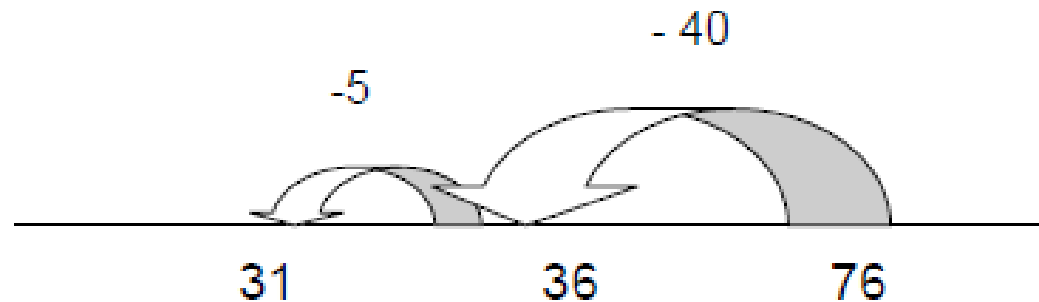


Use in conjunction with a **100 square** to show jumps of tens.

Year 2

If children are confident, use more efficient jumps:

$$76 - 45 = 31$$



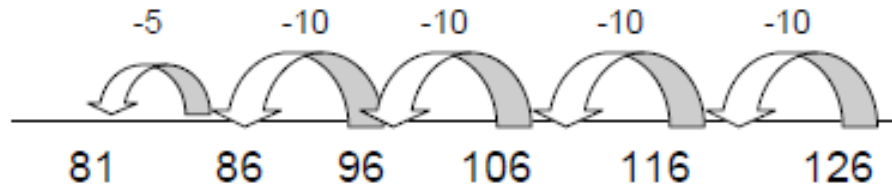
$$76 - 40 - 5 = 31$$

Use in conjunction with a **100 square** to show jumps of tens and ones.

Year 3

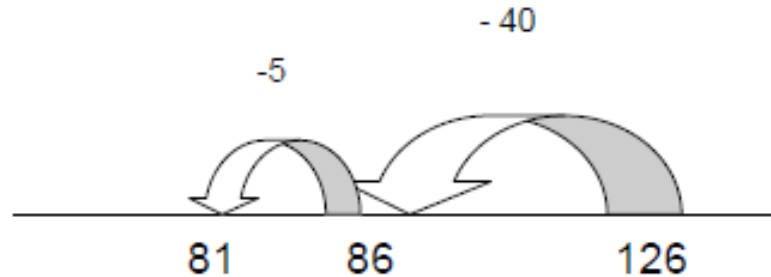
Empty number line that bridge 100

$$126 - 45 = 81$$



Use a **200 grid** to support counting back in tens and bridging 100

Then use more efficient jumps:



Year 3

$$78 - 23 = 55$$

$$\begin{array}{r} 70 + 8 \\ -20 + 3 \\ \hline 50 + 5 = 55 \end{array}$$

'Partition numbers into tens and ones/units.
Subtract the ones, and then subtract the tens.
Recombine to give the answer.'

NB In this example decomposition (exchange) is not required.

You might replace the **+** sign with the word '**and**' to avoid confusion.

This will lead into the **formal written method**:

$$\begin{array}{r} 78 \\ -23 \\ \hline 55 \end{array}$$

Use the language of place value to ensure understanding:
'Eight subtract three, seventy subtract twenty.'

Year 4

This leads to the **formal written method**, involving decomposition...

$$\begin{array}{r} 1 \ 15 \\ 2 \ 5 \ 8 \\ - \quad 7 \ 3 \\ \hline 1 \ 7 \ 5 \end{array}$$

Use the language of place value to ensure understanding.

In this example it has been necessary to exchange from the hundreds column.

Year 5

$$12731 - 1367 = 11364$$

$$\begin{array}{r} \\ \\ - \\ \hline \\ \end{array}$$

In this example it has been necessary to exchange from the tens and the hundreds columns.

Introduce subtraction of decimals, initially in the context of money and measures.

$$£166.25 - £83.72 = £82.53$$

$$\begin{array}{r} \\ \\ - \\ \hline \\ \end{array}$$

Ensure the decimal points line up.

Year 6

Year Six - Subtraction

No objectives have been included in the programmes of study explicitly related to written methods for subtraction in Y6.

However, there is an expectation that children will continue to practice and use the formal written method for larger numbers and decimals and use these methods when solving problems.

Our aim is that by the end of Y6 children use mental methods (with jottings) when appropriate, but for calculations that they cannot do in their heads, they use an efficient formal written method accurately and with confidence.