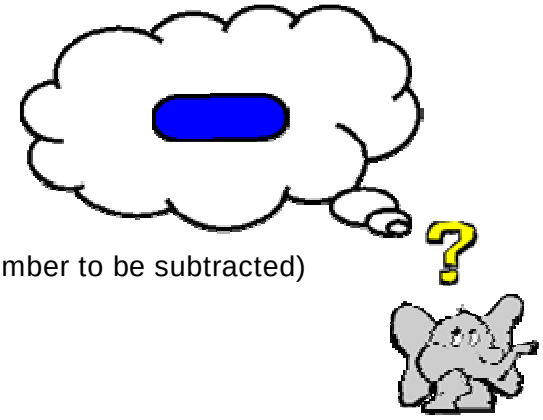
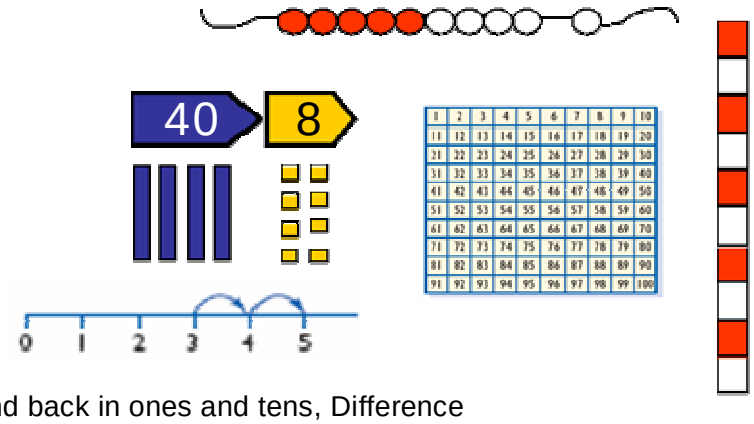
Progression in Teaching Subtraction



Mental Skills

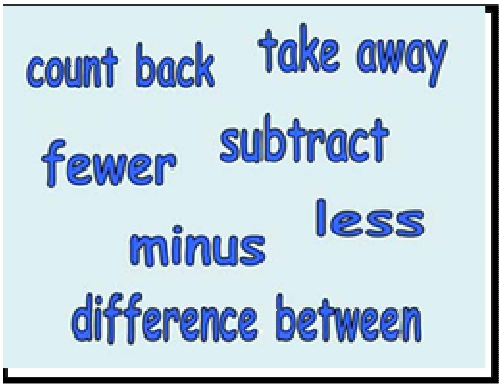
Recognise the size and position of numbers
Count back in ones and tens
Know number facts for all numbers to 20
Subtract multiples of 10 from any number
Partition and recombine numbers (only partition the number to be subtracted)
Bridge through 10

Models and Images



Counting apparatus
Place value apparatus
Place value cards
Number tracks
Numbered number lines
Marked but unnumbered lines
Hundred square
Empty number lines.
Counting stick
Bead strings
Models and Images Charts
ITPs – Number Facts, Counting on and back in ones and tens, Difference

Key Vocabulary



subtract
take away
minus
count back
less
fewer
difference between

Begin to count backwards in familiar contexts such as number rhymes or stories

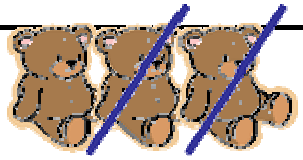
Five fat sausages frying in a pan …

Ten green bottles hanging on the wall …

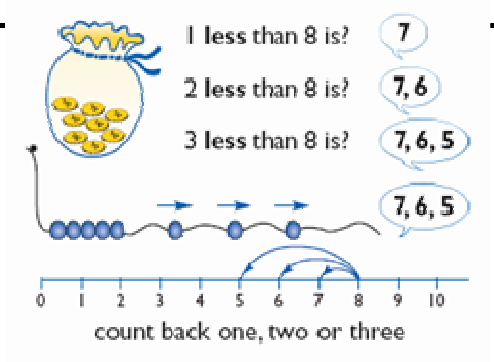
10, 9, 8, 7 . . .

Continue the count back in ones from any given number

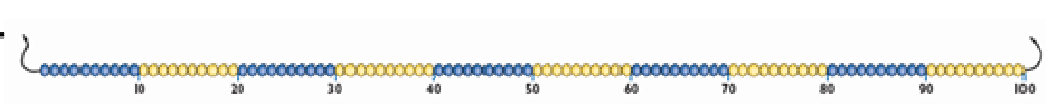
Begin to relate subtraction to ' taking away '

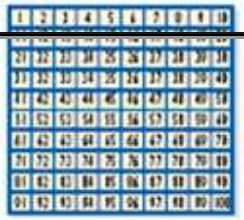


Three teddies take away two teddies leaves one teddy

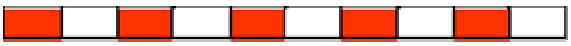


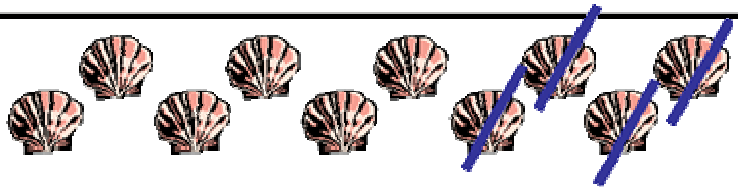
Find one less than a number





Count back in tens

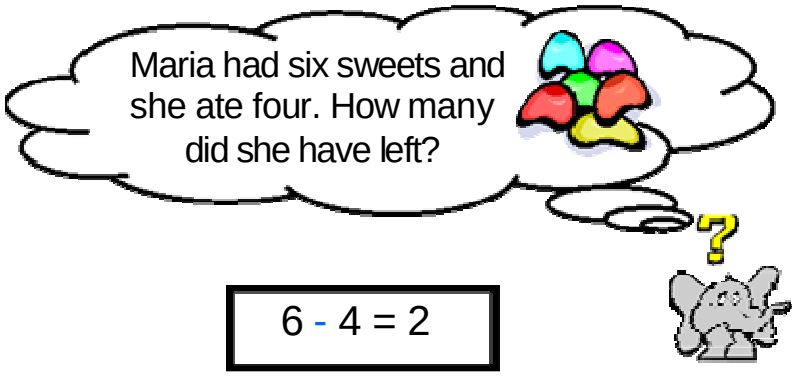




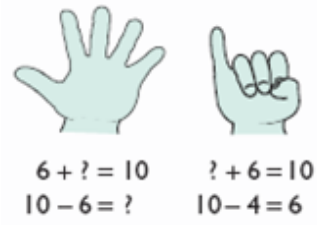
If I take away four shells there are six left

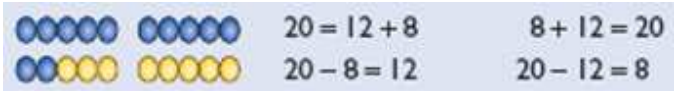
Count backwards along a number line to ' take away

Begin to use the – and = signs to record mental calculations in a number sentence



6 - 4 = 2

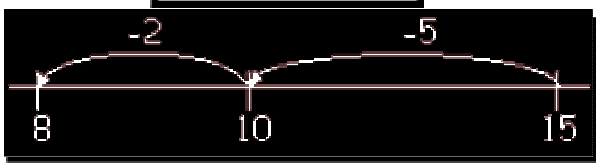


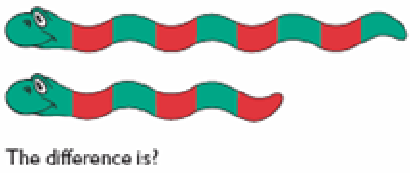


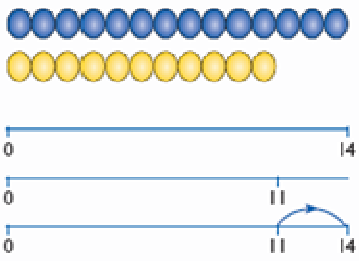
Know by heart subtraction facts for numbers up to 10 and 20

Subtract single digit numbers often bridging through 10

15 - 7 = 8



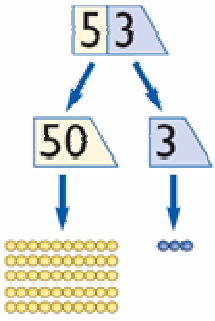


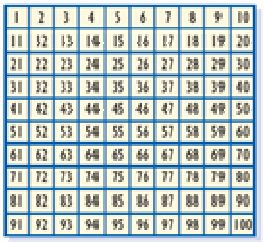


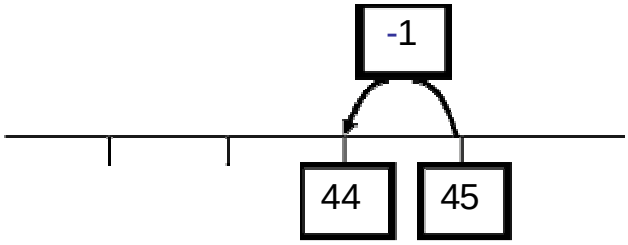
The difference between 11 and 14 is 3.
14 – 11 = 3
11 + ☐ = 14

Begin to find the difference by counting up from the smallest number

Begin to partition numbers in order to take away





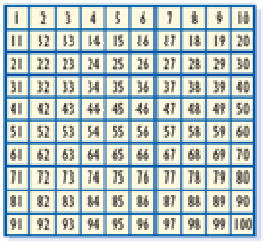


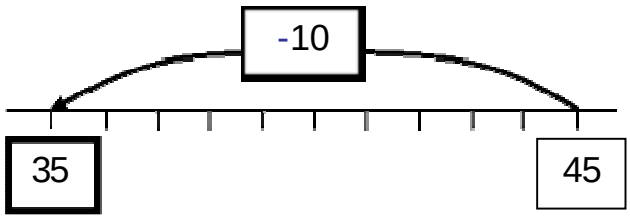
Subtract 1 from a two-digit number

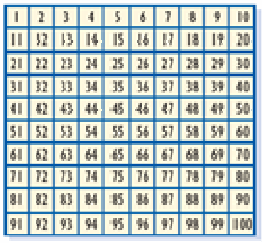
45 - 1

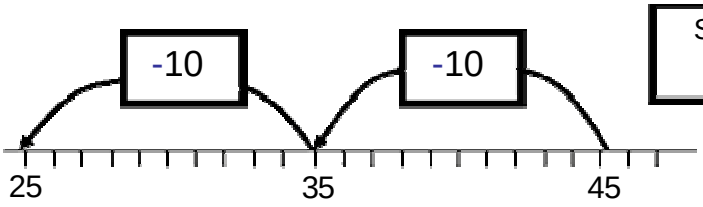
Subtract 10 from a two-digit number

45 - 10





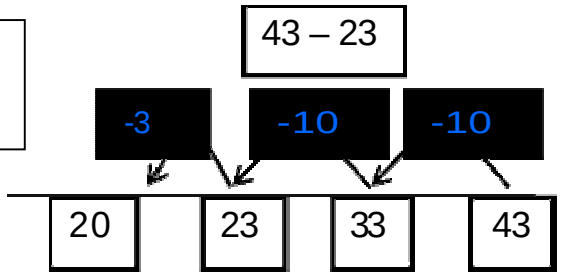




Subtract multiples of 10 from any number

45 - 20

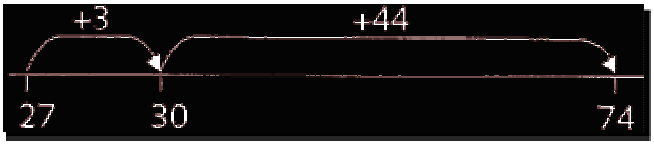
Partition the number to be subtracted (no exchanging)



43 – 20 3

43 – 20 = 23

23 – 3 = 20



Decide whether to count on or count back

74 - 27 = 47

Now what's the answer?

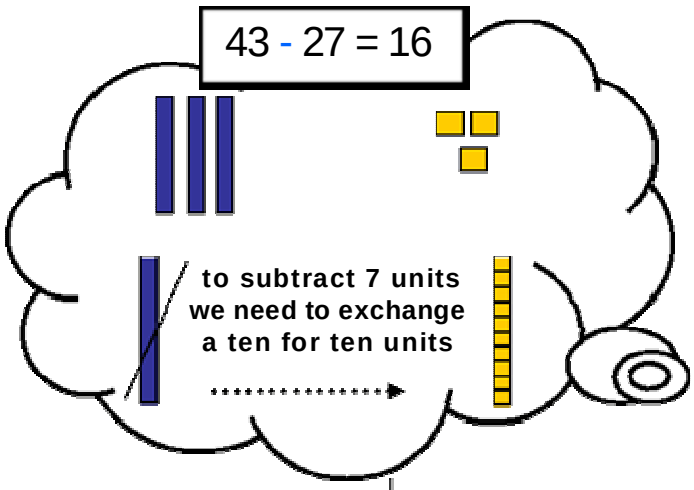
Partitioning number to be subtracted – with exchanging (links to counting back on number line)

43 - 27 = 16

43 – 20 7

43 – 20 = 2 3

23 – 7 = 1 6



TU

– 2 7

Expanded method

It is important that the children have a good understanding of place value and partitioning using concrete resources and visual images to support calculations. The expanded method enables children to see what happens to numbers in the standard written method.

$^{30}\cancel{40} + {}^{10+}3$

$-\ 20 + 7$

$10 + 6$

Standard written method

The previous stages reinforce what happens to numbers when they are subtracted using more formal written methods. It is important that the children have a good understanding of place value and partitioning.

$^{3}\cancel{4}\,{}^{1}3$

$-\ 2\ 7$

$1\ 6$