Peppard CE Primary Calculation Policy 2017 onwards.
KS1 Addition and Subtraction.

(Adapted from the Abacus maths scheme).

Overview of Strategies and Methods – Addition

Mental Addition

Year 1

Using place value

Count in 1s

e.g. *45 + 1*

Count in 10s

e.g. *45 + 10 without counting on in 1s*

34	35	36
44		46
54	55	56

Add 10 to any given 2-digit number

Counting on

Count on in 1s

e.g. *8 + 3 as 8, 9, 10, 11*

Add, putting the larger number first

Count on in 10s

e.g. *45 + 20 as 45, 55, 65*

Year 2

Using place value

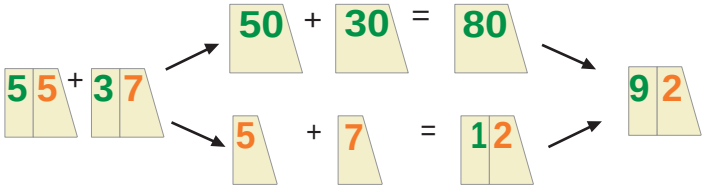
Know 1 more or 10 more than any number

e.g. *1 more than 67*

e.g. *10 more than 85*

Partitioning

e.g. *55 + 37 as 50 + 30 and 5 + 7, then finally combine the two totals: 80 + 12*



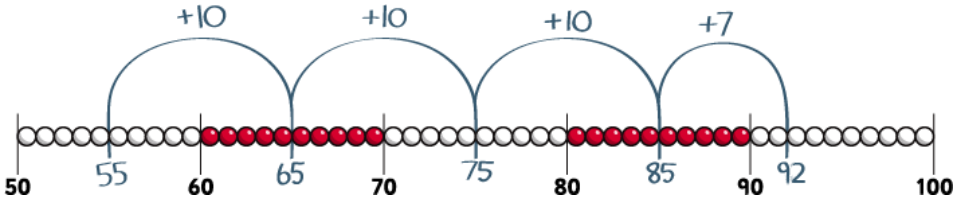
Counting on

Add 10 and multiples of 10 to a given 1- or 2-digit number

e.g. *76 + 20 as 76, 86, 96 or in one hop: 76 + 20 = 96*

Add two 2-digit numbers by counting on in 10s, then in 1s

e.g. *55 + 37 as 55 + 30 (85) + 7 = 92*



Add near multiples of 10

e.g. *46 + 19*

e.g. *63 + 21*

Overview of Strategies and Methods – Addition

Mental Addition

Year 1

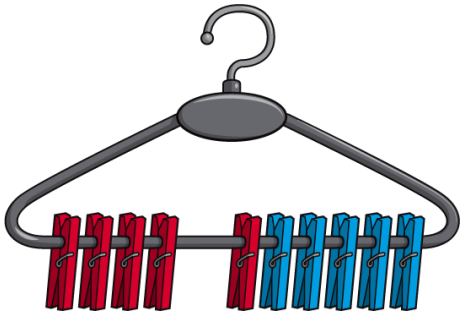
Using number facts

'Story' of 4, 5, 6, 7, 8 and 9

e.g. *7 = 7 + 0, 6 + 1, 5 + 2, 4 + 3*

Number bonds to 10

e.g. *5 + 5, 6 + 4, 7 + 3, 8 + 2, 9 + 1, 10 + 0*



4 + 6 = 10

Use patterns based on known facts when adding

e.g. *4 + 3 = 7 so we know 24 + 3, 44 + 3, 74 + 3*

Year 2

Using number facts

Know pairs of numbers which make the numbers up to and including 12

e.g. *8 = 4 + 4, 3 + 5, 2 + 6, 1 + 7, 0 + 8*

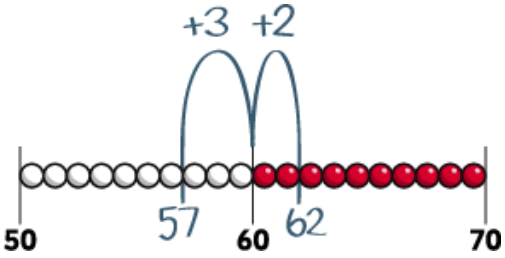
e.g. *10 = 5 + 5, 4 + 6, 3 + 7, 2 + 8, 1 + 9, 0 + 10*

Use patterns based on known facts when adding

e.g. *6 + 3 = 9, so we know 36 + 3 = 39, 66 + 3 = 69, 56 + 3 = 59*

Bridging 10

e.g. *57 + 5 = 57 + 3 (60) + 2 = 62*



Add three or more 1-digit numbers, spotting bonds to 10 or doubles

e.g. *3 + 5 + 3 = 6 + 5 = 11*

e.g. *8 + 2 + 4 = 10 + 4 = 14*

Mental Subtraction

Year 1

Using place value

Count back in 1s

e.g. *Know 53 – 1*

Count back in 10s

e.g. *Know 53 – 10 without counting back in 1s*

32	33	34
42	43	44
52	53	54

Taking away

Count back in 1s

e.g. *11 – 3 as 11, 10, 9, 8*

e.g. *14 – 3 as 14, 13, 12, 11*

Count back in 10s

e.g. *53 – 20 as 53, 43, 33*

Year 2

Using place value

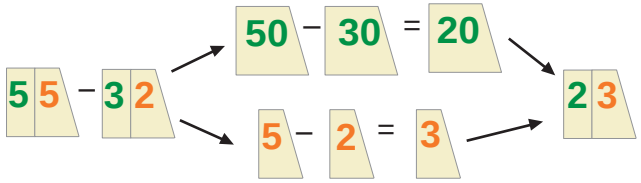
Know 1 less or 10 less than any number

e.g. *1 less than 74*

e.g. *10 less than 82*

Partitioning

e.g. *55 – 32 as 50 – 30 and 5 – 2 and combine the answers: 20 + 3*



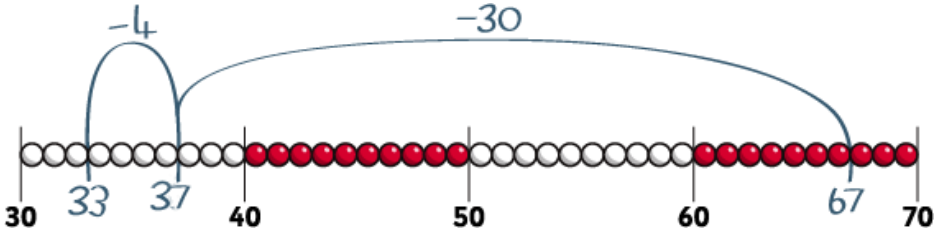
Taking away

Subtract 10 and multiples of 10

e.g. *76 – 20 as 76, 66, 56 or in one hop: 76 – 20 = 56*

Subtract two 2-digit numbers by counting back in 10s, then in 1s

e.g. *67 – 34 as 67 subtract 30 (37) then count back 4 (33)*



Subtract near multiples of 10

e.g. *74 – 21*

e.g. *57 − 19*

abacus

Overview of Strategies and Methods – Subtraction

Mental Subtraction

Year 1

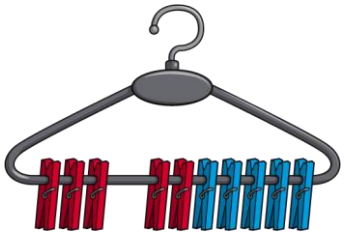
Using number facts

'Story' of 4, 5, 6, 7, 8 and 9

e.g. 'Story' of 7 is *7 – 1 = 6, 7 – 2 = 5, 7 – 3 = 4*

Number bonds to 10

e.g. *10 – 1 = 9, 10 – 2 = 8, 10 – 3 = 7*



10 – 7 = 3

Subtract using patterns of known facts

e.g. *7 – 3 = 4 so we know 27 – 3 = 24, 47 – 3 = 44, 77 – 3 = 74*

Year 2

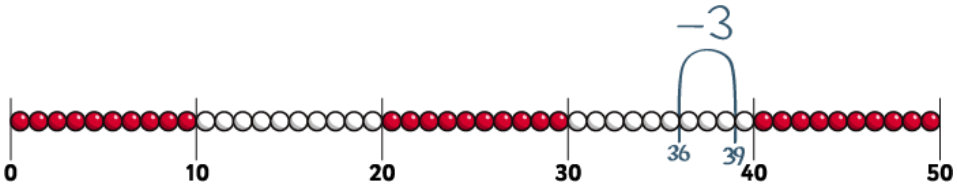
Using number facts

Know pairs of numbers which make the numbers up to and including 12 and derive related subtraction facts

e.g. *10 – 6 = 4, 8 – 3 = 5, 5 – 2 = 3*

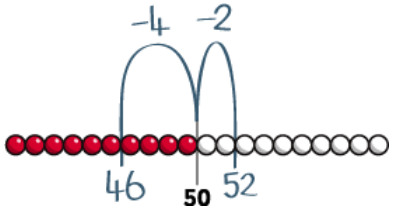
Subtract using patterns of known facts

e.g. *9 – 3 = 6, so we know 39 – 3 = 36, 69 – 3 = 66, 89 – 3 = 86*



Bridging 10

e.g. *52 – 6 as 52 – 2 (50) – 4 = 46*



Counting up

Find a difference between two numbers on a line where the numbers are close together

e.g. *51 – 47*