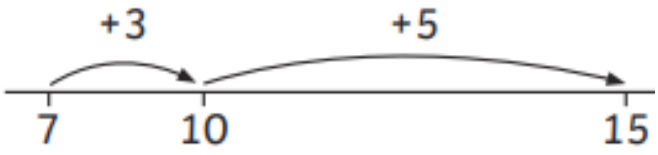
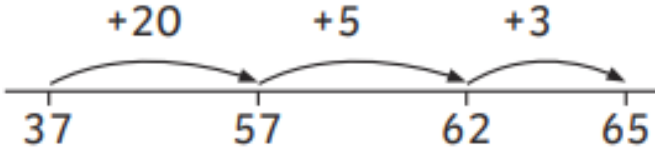
Calculation Methods

Addition

The different stages	Examples
Stage 1 Counting sets of objects	
Stage 2 Combining two sets of objects into one group and counting practically.	For 5 + 3 the children may get 5 objects, and then 3 more and cour how many altogether.
Stage 3 Drawing dots - informal jottings. Then counting how many altogether.	3 + 5 = 8 ● ● ● + ● ● ● ● ●
Stage 4 Counting on, on a number line with numbers on it.	5 + 3 = 8 
Stage 5 Steps in addition can be recorded on a number line. The steps often bridge through a multiple of 10. 1) Partition the smaller numbers into tens and ones. 2) Add on the tens. 3) Add on the ones.	7 + 8 = 15  37 + 28 = 65 

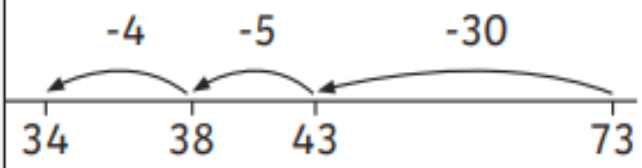
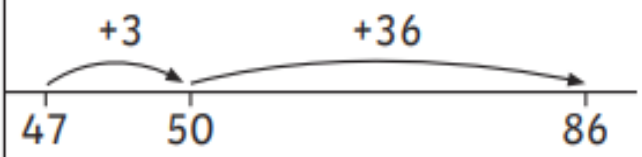
Calculation Methods

Addition

The different stages	Examples
Stage 6 Partitioned numbers are then written under one another.	87 + 28 80 + 7 20 + 8 100 + 15 = 115
Stage 7 Write the numbers in columns Add the tens first.	87 + 28 100 15 115
Adding the units first.	87 + 28 15 100 115
Stage 8 This then becomes the shorter method where numbers get carried into the next column.	87 + 28 115 1 1
Stage 9 Later, mover to adding three two digit numbers, two three digit numbers and numbers with amounts of digits.	249 + 96 345 1 1

Calculation Methods

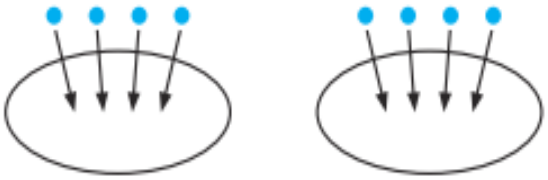
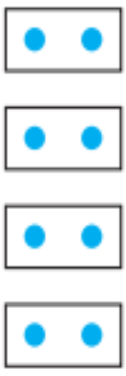
Subtraction

The different stages	Examples
Stage 1 Practically get a group of objects together and then take some away.	
Stage 2 Jottings - draw a set of marks, and then cross some out.	12 - 5 = 7 
Stage 3 Count back on a number line with numbers already on it.	12 - 3 = 9 
Stage 4 Using a number line. Work by counting back. Also work out the difference by counting on.	73 - 39 = 34  Work out the difference between 47 and 86 = 39 

Calculation Methods

Division

Deriving and recalling division facts		
Year 2	**Year 3**	**Year 4**
2 times table 5 times table 10 times table	3 times table 4 times table 6 times table	Derive and recall all division facts for all tables up to 10 x 10.

The different stages	Examples
Stage 1 Children will develop their understanding of division and use jottings to support calculation.	8÷2 **Sharing equally** 8 sweets shared between 2 people, how many do they each get? 
Stage 2 Grouping	**Grouping or repeated addition** There are 8 sweets, how many people can have 2 sweets each? 
Stage 3 Arrays	**Arrays can also be used.** 
Stage 4 Repeated addition Repeated addition can be shown easily on a number line.	

Calculation Methods

Multiplication

Year 2	2 times table 5 times table 10 times table	Within this teach how to know facts i.e. 6 x 3 is 5 x 3 and then 1 x 3 9 x 3 is 10 x 3 and then take away 3
Year 3	3 times table 4 times table 5 times table 5 times table	
Year 4	Derive and recall multiplication facts for all tables up to 10 x 10.	

The different stages	**Examples**
Stage 1 Counting practically in repeated groups/patterns.	
Stage 2 Grouping	4 x 2 = 8 
Stage 3 Arrays	4 x 2 = 8 or 2 x 4 + 8 
Stage 3 Repeated addition Repeated addition can be shown easily on a number line.	5 x 3 is 5 + 5 + 5 = 15 or 3 lots of 5