ADDITION GUIDELINES

| Year One	Year Two	Year Three

Add numbers using concrete objects and pictorial representations
One-digit and two-digit numbers to 20 including 0.
 	
+ = signs and missing numbers
Children need to understand the concept of equality before using the '=' sign. Calculations should be written either side of the equality sign so that the sign is not just interpreted as 'the answer'.
2 = 1+ 1
2 + 3 = 4 + 1
3 = 3
2 + 2 + 2 = 4 + 2
 	
Missing numbers need to be placed in all possible places. Complete empty box number sentences eg:
3 + 4 = □   □ = 3 + 4
3 + □ = 7   7 = □ + 4
□ + 4 = 7   7 = 3 + □
□ + ▽ = 7   7 = □ + ▽
 	
Using a number line
 	
Addition
 	
7+ 4
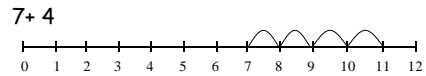 	
0 1 2 3 4 5 6 7 8 9 10 11 12
*In the jump number eg: For above example 1, 2, 3, 4 (because we have added 4)
 	
Counting on
Holding a number in your head and using fingers to count on
 	
Cubes
Representing a number sentence and using the cubes to combine and count a total
	Add numbers using concrete objects, pictorial representations, and mentally including:
	a two-digit number and 1s,
	a two-digit number and 10s,
	2 two-digit numbers
	3 one-digit numbers
	
	+ = signs and missing numbers
	14 + 5 = 10 + □
	and
	    32 □ + □ = 100 35 = 1 + □ + 5
	
	Inverse
	Recognize and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems
	14 - 6 = 8 so 8 + 6 =
	Missing number problems using inverse to solve.
	
	The Hundred Square
	100 square to be used for numbers below twenty. Finding numbers one or ten more. Adding 10 to a one digit number.
	
	Using an empty number line (the step before is to have numbers on the number line)
	
	Addition
	23 +12 = 35
	
	    +10 +2
	23 33 35
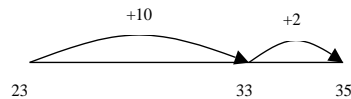	
	NB. Before children begin this method they must be secure in adding multiples of 10 to 2-digit numbers
		+ = signs and missing numbers
		solve problems including
		Missing number
		Using number facts
		Place value
		More complex addition
		This is also to include missing number compact written method.
		
		Written method – compact
		Add numbers with up to 3 digits, using formal written methods of columnar addition
		
		HTU + HTU
		367 + 18 5 = 552
		
		   HTU
		   367
		   185 +
		   552
		    1 1
		
		HTU + HTU + HTU
		Columns must be labelled with H T U etc… and the addition sign written on the right hand side.
		
		* Ensure that calculations involving 2 and 3 digit numbers are used throughout the year.
		
		*Remember to include some decimals to solve money problems

Bridging through ten

8 + 7 = 15
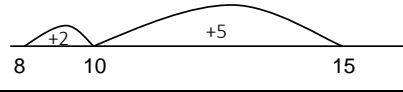
Children write the difference between steps within the jumps.

Partitioning
When secure show this written.
   23 + 12 = 35
   23 + 10 = 33
   33+ 02 = 35

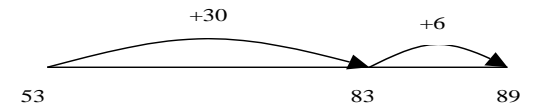| Mental calculations	Mental calculations	Mental calculations

Number bonds
Children should be secure in facts within 20
 	
Addition
Adding 1 more
Know all addition facts up to 5
Know all addition pairs to 10
Know all addition facts up to 10
Add all 1 digit numbers including those that cross 10
	Number bonds
	Recall and use addition facts to 20 fluently, and derive and use related facts up to 100
	
	Addition
	Add 1 digit numbers to 2 digit numbers
	Add multiples of 10 to a 2 digit number
		Resources
		Children to use dienes apparatus to represent numbers and show addition before moving onto mental
		
		Numberbonds
		A three-digit number and 1s
		A three-digit number and 10s
		A three-digit number and 100s
		
		Recall and use addition facts to 20 fluently, and derive and use related facts up to 100
		
		Partition into tens and units
		
		Show visually a method which supports mental calculation. Represent this.
		
		36 + 53 = (children should start with largest number when adding)
		   53 + 30 = 83
		   83 + 06 = 89
		When children are secure with this method