Castle Batch Primary School Academy Progression in written calculation strategies for addition

Foundation Stage

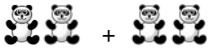
Statutory Guidance

Using quantities and objects, add two single digit numbers counting on to find the answer

Using concrete objects

Combining two sets of objects

2 +2 = 4



Year 1

Statutory Guidance

Add one-digit and two-digit numbers to 20

Solve simple one-step addition problems that involve addition, using concrete objects, pictorial representations and missing number problems

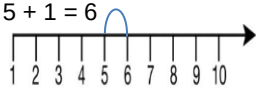
Using concrete objects

3 + 3 = 6

Using pictorial representations

Counting on using a number line

5 + 1 = 6



Year 2

Statutory Guidance

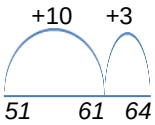
Add numbers using concrete objects, pictorial representations and mentally, including:

- *a 2-digit number and ones*
- *a two-digit number and tens*
- *two two-digit numbers*
- *adding three one-digit numbers*

Solve simple one-step problems with addition including those involving quantities and measures

Using pictorial representations

51 + 13 =



Expanded Column Method

T	U	
4	3	
+ 1	6	
	9	(3 + 6)
5	0	(40 + 10)
5	9	

Year 3

Statutory Guidance

Add numbers mentally, including:

- *a three-digit number and ones*
- *a three-digit number and tens*

Add numbers with up to three digits, using formal written methods of columnar addition

Solve problems, including missing number problems, using number facts, place value, and more complex addition

Column Method

T	U
2	2
+ 3	1
5	3

Column Addition with carrying

T	U
5	4
2	9
+ 8	3
1	

Year 4

Statutory Guidance

Add numbers with up to 4 digits using the efficient written method of column addition

Estimate and use inverse operations to check answers to a calculation

Solve addition two-step problems in contexts

Column Method

Using column method for up to four digits, more than one carry and introducing decimals

172	
+ 264	
436	
1	

3541	
+ 2673	
6214	
1 1	

£32.16	
+£15.24	
£47.40	
1	

Year 5

Statutory Guidance

Add whole numbers with more than 4 digits using efficient written methods

Solve addition multi-step problems in contexts

Column Method

12478	
+ 7369	
19847	
1 1	

49.2	
8.63	
+191	
248.83	
1 1	

Year 6

Statutory Guidance

Solve addition multi-step problems in contexts, deciding which operations to use and why

Problem Solving

Peter cuts a piece of string into 3 lengths. One is 4.26cm long, one is 7.54cm long and the third is 3.90cm long. How long was the string before it was cut?

Using column method to solve multi-step problems often involving more than one operation (for example, where both addition and subtraction calculations are needed to solve the problem)

Jack goes on a shopping trip. He has £250. He buys a t.shirt for £15.98 and a bike for £175.99. How much money does he have left?