

Calculation Policy- Addition and Subtraction

Number	Assessment Point	Example
1	Count forwards and backwards using rhymes and stories.	<div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;"> "Five sizzling sausages sizzling in a pan." </div> 
2	Count on and back in ones from any given number.	10, 9, 8, 7, 6 ...
3	Begin to relate subtraction to taking away and addition to getting bigger.	3 teddies take away 2 teddies leaves 1 teddy. 
4	Find 1 less and 1 more than a number up to 20.	 and  is 
5	Use a structures number line to add and take away.	 1 2 3 4 5
6	Begin to use the + - and = signs to record mental calculations. Solve one step problems.	Maria had 6 sweets. She ate 4. How many does she have left? $6-4=2$
6.1	Use inverse strategies applying + - and =. Addition can be in any order, subtraction can not be reversed.	$8+2=10$ so $10-2=8$ and $10-8=2$
7	Recall and use bonds to 20 confidently.	$1+19=20$ $2+18=20$ $3+17=20$ etc.
7.2	Add 3 one digit numbers.	$1+5+2=8$ Using objects or a structured number line
7.3	Double any number up to 20.	
8	Add and subtract 1d and 2d numbers up to 20.	$17+3=20$ $11+9=20$ $20-15=5$ etc.

9	Begin to partition to add and take away.	
10	Add and subtract a 1 digit number from a 2 digit number often bridging 10.	$15 - 7 = 8$
10.1	Apply bonds to 20 knowledge to bonds to 100.	$8 + 2 = 10$ so $80 + 20 = 100$
11	Add and subtract 10 from a 2 digit number	$45 - 10 = 35$
12	Add and subtract multiples of 10 from a 2 digit number.	$25 + 20 = 45$
12.1	Estimate answers to addition and subtraction problems using 2 digits.	$19 + 12 = 31$ Round 19 to 20 and round 12 to 10: $20 + 10 = 30$
12.2	Find the difference between two 2-digit numbers by using a number line to count on to the highest number.	Find the difference between 23 and 55. $= 32.$
14	Use an empty number line to add and subtract 2 digit numbers.	$47 + 27 = 74$
14.1	Use the expanded column method by partitioning for addition and subtraction.	$124 + 52 =$ $100 + 20 + 4$ $\underline{50 + 2}$ $100 + 70 + 6 = 176$

		$168 - 43 =$ $\begin{array}{r} 100 \ 60 \ 8 \\ \quad 40 \ 3 \\ \hline 100 \ 20 \ 5 = 125 \end{array}$
14.2	Solve addition and subtraction problems using the column method involving 2 digit numbers and decimals.	Addition: 23 $\begin{array}{r} 23 \\ +15 \\ \hline \end{array}$ Subtraction: 89 $\begin{array}{r} 89 \\ -12 \\ \hline \end{array}$
15	Check answers using inverse strategies.	$14-11=3$ so $3+11=14$
15.1	Estimate answers to addition and subtraction problems using 3 digits and decimals.	$213+214=427$ so $200+200=400$
16	Apply the column method using carrying and borrowing to complex problems involving 2 and 3 digit numbers and decimals.	Children must have a strong understanding of place value to complete this stage. Addition <div style="border: 1px solid orange; padding: 5px; width: fit-content; margin: 10px auto;"> <p style="text-align: center; color: cyan;">Column method</p> $\begin{array}{r} 5 \ 6 \ 7 \\ +1 \ 9 \ 9 \\ \hline 7 \ 6 \ 6 \end{array}$ </div> Subtraction $\begin{array}{r} 3 \\ \cancel{4}2 \\ -37 \\ \hline 5 \end{array}$
17	Apply the column method using carrying and borrowing to complex problems involving 4 digits and decimals. Solve two step problems.	Column method using thousand numbers. "Tom goes to a shop and he buys a pencil case for £3.50 and a pack of pencils for £1.99. How much change does he get from £5.00?"
17.1	Estimate answers to addition and subtraction problems using 4 digits.	$584-201=383$ so $600-200=400$

18	Apply the column method using carrying and borrowing to numbers over 4 digits and decimals.	Column method using any number.
18.1	Estimate answers to any addition and subtraction problems.	$5413+2147=3266$ so $5000-2000=3000$
19	Solve addition and subtraction multi step problems deciding which operation to use and why.	