Mental strategies journey through school

Grid shows KS1 number bonds to secure – practised throughout school.

Year 1
Rapid recall
Y1 facts on grid tested and recorded termly – including associated subtraction facts
Mental strategies
+ 0 + 1 and + 2 (and –) to any number up to 20 (Just 0, 1, or 2 more/less)
+/- 10 to any 1 digit number including zero:10 + 7 = 17
Notice **Number bonds** to 10
Doubling and halving: double facts and halves to 5 + 5 (and 10 + 10)
Near number bonds to add two one digit numbers: "7 + 2 = 9 because 7 + 3 = 10 so it's just one less" or "8 + 3 mist be 11 because 8 + 2 = 10"
Near double facts e.g. "3 + 4 = 7 because double 3 is 6 so it's just one more".
Partitioning: Use number facts to add TO + O: "24 + 3… I know that 3 + 4 = 7 so 20 + 7 = 27"
Adjusting: 'make ten' supported by models and images e.g. 8 + 6 = 8 + 2 + 4

Year 2
Rapid recall
Y1 and 2 facts on grid tested and recorded termly – including associated subtraction facts
2, 5 and 10 times table multiplication and division facts
Mental strategies
Number bonds to 10 and **near number bonds** to add two or three single digit numbers
Spot **doubles** and **near doubles** to add two or three single digit numbers
Use **number bonds** to 20 and near number bonds to 20 to add 2 numbers
+ 10 to any 2 digit number (support with models, images and hundred square)
Partitioning: Calculations with whole numbers which do not involve crossing place value boundaries- e.g. 23 + 45= ? by 40 + 5 +20 + 3 or 40 + 23 + 5
Counting on or back in tens and ones to add or subtract – flexibility with number line
Adjusting +/- 9 and 11 by adding 10 then subtracting or adding 1
Adjusting: 'make ten' supported by models and images e.g. 8 + 6 = 8 + 2 + 4
+/- multiples of 10 where the answer is between 0 and 100 (e.g. 70 + 30 = 100, 20 + 40 = 60)
Doubling and halving: Derives doubles and halves of multiples of 10 up to 100
Doubling and halving: Find the doubles to 100 using partitioning and halves of any even number to 100