Mental Strategies – Year 2

Learn Its	
	Year 2 Count forwards and backwards in jumps of 2, 5 and 10 from any number Count forwards and backwards in jumps of 3 from zero Derive related facts to 100 e.g. 90+10=100 100-80=20 Recognise odd and even numbers Derive halves and doubles of simple 2d numbers

Term 1 Recall addition and subtraction facts to 20	Learn the 2X tables and related division facts 4+7=11 4+8=12 4+9=13 3+8=11 3+9=12	
Term 2 Recall addition and subtraction facts to 20	Learn the 5X tables and related division facts 5+4=9 5+6=11 6+7=13 8+7=15 8+9=17	
Term 3 Recall addition and subtraction facts to 20	Learn the 10X tables and related division facts 5+7=12 5+8=13 6+8=14 5+9=14 6+9=15 7+9=16	

Read and write number to 120 in numerals and to 100 in words	

RA – Round and Adjust Children need to be able to say numbers in order, say one number more or less, know the next multiple of 10 and add on 10 more before they can use this method.	

MA2: Round & Adjust

$45 + 19 = 64$

$45 + 20 - 1$

$65 - 1 = 64$

MA2: Round & Adjust

$45 + 9 = 54$

$+10$ -1

45   54

PA – Partitioning Children need to know the place value of each digit in a 2d number to add two 2d numbers totalling less than 100. Children need to demonstrate partitioning numbers in different ways.	MA3: Partitioning $43 + 21 = 64$ $60 + 4 = 64$ MA3: Partitioning $43 + 21 = 64$ 54+37 54+30=84 84+7=91

CO – Count On Children need to be able to count on and back in ones or tens from any 2d number mentally with finger prompts.	MA4a: Counting On $78 + 7 = 85$ $+7$ 78 85 MA4b: Counting On $58 + 40 = 98$ $+40$ 58 98

DA – Double and Adjust Children need to be able to double single digit numbers and then add on one more.	MA5: Double & Adjust $7 + 8 = 15$ $7 + 7 + 1$ $14 + 1 = 15$ MA5: Double & Adjust $7 + 8 = 15$ $7 + 8 = 7 + 7 + 1 = 14 + 1 = 15$

NUMBO – Number Bonds Children need to be able to instantly recall number bonds for and within 10, 20 and 100, so that they can use this when adding 3 single digit numbers. They should be able to use number bonds to 10 to reason and calculate number bonds for 20 and 100. Story of numbers up to 20 (see Learn Its)	**MA6: Number Bonds** **MA6: Number Bonds** 3 + 4 + 7 = 14 3 + 4 + 7 = 14 3 6 / 6 4 Total 9 / Total 10 · 100 10 4 e.g. 7+3=10 so 17+3=20 14+3=17 so 3+14=17 Facts Families and inverse within 20 e.g. 7+3=10 so 70+30=100
Count On This should be done mentally or with jottings with two 2d numbers totalling less than 100. Finding the difference when there is a small gap	47-21 47-20=27 27-1=26 42-38 Know when to count on if there is a small gap between the numbers
Round and Adjust	83-19= 83-20=63 63+1=64

Jump This should be taught as a jump of digits. However some children will see a pattern when x whole numbers by a multiple of 10. Children should be able to x10 up to the 12th multiple and the related division facts.	**MM1a: Jump!** ThTh H T U . ÷ ÷ ÷÷÷ x1000 63400 x100 6340 x10 634 63.4 ÷10 6.34 ÷100 0.634 ÷1000 0.0634 Use itps to show the movement of the digits and the need for a place holder
Doubling Children should know all of their single digit doubles and some 2 digit doubles under 20 and the related halves (see Learn Its).	
Count in steps of 2, 3, 5 and 10 Count forwards and backwards in steps of 2, 3 and 5 from any given multiple and in 10s from any number.	
Pattern Seeking	Know different unit patterns when not crossing a 10 e.g. 4+3=7 14+3=17 24+3=27 Begin to recogmise unit patterns when crossing a ten e.g 5+6=11