Our Lady & St John's

Mental Maths Non-Negotiables Ladder

These targets should be worked on in each term. Any child who has gaps in their learning should be picked up by the precision teaching or through planning. Children should be extended in each strand through practical examples or different examples to embed knowledge if they are secure of the basic concept. We will pre-test in autumn and post-test in summer.

Term	Mental Maths Strand **Year Six**	Beginning (Initials)	Developing (numbers)	Secure (Initials)
Autumn	Add two 1-place decimal numbers or two 2-place decimal numbers less than 1 (4.5 + 6.5 or 0.74 +0.33)			
	Count forward and backward with positive and negative numbers through zero.			
	Know all multiplication and division facts for the times tables up to 12x12. Apply and extend			
	Derive quickly and without difficulty, number bonds to 1000			
	Use number bonds to 1 and 10 to perform mental subtraction of any pair of one-place			
	Read, write, order, compare numbers up to 1.000 000			
	Use place value knowledge to +/- 10. 100, 1000, etc to a number.			
Spring	Use divisibility tests to aid mental calculation			
	Use place value and number facts in mental multi (40,000 x 6 = 24,000)			
	Identify common factors, common multiples, common numbers and prime numbers and use factors in mental division (438 ÷ 6 is 219 ÷ 3)			
	Identify common factors, common multiples, common numbers and prime numbers and use factors in mental multiplication (e.g 326 x 6 is 652 x 3)			
	Know by heart all multiplication and division facts up to 12 x 12. Apply and extend			
	Add positive number to negative numbers (e.g calculate a rise in temp)			
	Know doubles and halves of 2digit decimals.			
	Know the doubles and halves of all multiples of 10 and 10000			
	Recognise common equivalent fractions, decimals and percentages.			
	Use known multiplication facts to multiply decimals (e.g 6x4 = 24, 0.4 x 0.6 = 2.4.			
	Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})			

Look SMART
Work and Play SMART
Be SMART

Summer	Halve and double decimal numbers with up to 2 places using partitioning e.g 36.73 doubled is double 36 plus double 0 .73)			
	Know by heart all multiplication and division facts up to 12 x 12. Apply and extend			
	Use rounding in mental multiplication (34 x 19 as (20 x34) -34)			
	Use doubling and halving as a mental division and multiplication strategy. E.g to divide by 2,4,8,5,20 and 25 (628 ÷ 8 is halved three times) (28 x 25 is ¼ of 28 x 100 = 700)			