St. Ethelbert's Written Calculation Policy

	Addition	Subtraction	Multiplication	Division
Year 1	Pictorial Objects Visual representations Horizontal addition 5 + 4 =	Pictorial Objects Visual representations Horizontal subtraction 5 - 4 =	Pictures/arrays/visual representations – relate to doubling, x2, 2 lots of, multiply by 2	Pictures/arrays/visual representations – relate to halving, dividing by 2, how many groups of 2, show fraction notation e.g. 8/2 = 8 div by 2 etc. Extend to fifths and tenths. Sharing (discrete skill – explain as sharing first then as grouping which links to counting). Grouping (relate to division) including remainders.
Year 2	Vertical partitioning method using a column eg: *Start with units* 67+24 60+7 20+4 80+11=91 Extend to compact column method if have sound understanding of place value.	Counting on with number line from smallest to largest number. Moving on to partitioning which leads into setting out as an expanded column.	Extend use of arrays to develop concepts and links between x and ÷ . *Link grouping to counting/repeated addition* Grid method (TUxU) Largest number partitioned vertically on left hand side.	Extend use of arrays to develop concepts and links between x and ÷ . *Link division to number of counts/multiples of a number/repeated subtraction* Counting e.g. : 35 ÷ 5 = 7 5, 10, 15, 20, 25, 30, 35 Extend to 350÷50=7 50, 100, 150, 200, 250, 300, 350 *This could be written initially and then orally or using table knowledge as this develops.*

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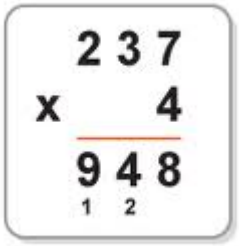
Year 3	Compact column addition (numbers up HTU) 625 + 48 673 1 Extend to decimals in the context of money starting with multiples Begin to add fractions with the same denominator. Recognise fractions that add up to 1.	Decomposition (HTU) Including decimals to 1 decimal place. 6 11 724 - 198 526 Extend to decimals in the context of money starting with multiples of 10p. Use counting up for small difference. Choose most efficient method. Begin to subtract fractions with same denominator.	Grid method (HTUxU) Largest number partitioned Vertically on left hand side.	Short (bus stop division) Find unit fractions of amounts and begin to find non-unit fractions of amounts.
Year 4	Compact column addition (numbers up to ThHTU) including decimals to 2 decimal places. 2.45 + 6.73 9.18 1 Add fractions with same denominator. Know fraction complements to 1. Choose most efficient method.	Decomposition (ThHTU) Including decimals to 2 decimal place. Use counting on where larger number is multiple of 100 or 1000, or where difference is small. Subtract fractions with same denominator. Use fraction complements to 1 to solve subtractions. Choose most efficient method.	Once secure with all times tables and grid method/partitioning, introduce short multiplication for HTU x U 	Extend short division to HTU by U Begin to reduce fractions to their simplest terms. Find unit and non-unit fractions of larger amounts.

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Year 5	Compact column addition (numbers up to ThHTU+) including decimals to 3 decimal places. Add fractions with same denominator and denominators that are multiples. Choose most efficient methods.	Decomposition (ThHTU+) Including decimals to 3 decimal places. Use counting on where larger number is multiple or near multiple of 1000 or 10000. Subtract fractions with same denominator and denominators that are multiples. Choose most efficient method.	Short multiplication (ThHTU x U) including decimals to one decimal place. Traditional long multiplication (ThHTU x U/TU) Find simple % of amounts e.g. 10%, 5%, 50% etc. Begin to multiply mixed numbers by whole numbers.	Short division ThHTU by U Traditional long division with divisors between 12 and 20. Find non-unit fractions of numbers with up to 3 digits. Turn improper fractions into mixed numbers and vice versa. Choose most efficient method.
Year 6	Compact column addition (numbers up to ThHTU+) including decimals to 3 decimal places. Add mixed numbers and fractions with different denominators.	Decomposition (ThHTU+) Including decimals to 3 decimal places. Use counting on where larger number is multiple or near multiple of 1000 or 10000. Use counting on with decimals where there is a small difference. Choose most efficient method. Subtract mixed numbers and fractions with different denominators.	Short multiplication 4 digits including decimals to two decimal places x U. Long multiplication (ThHTU x TU) or 4 digits with decimals x TU. Multiply fractions and mixed numbers by whole numbers. Multiply pairs of proper fractions, writing answer in its simplest form,	Long division ThHTU by TU Divide proper fractions by whole numbers.