Acre Hall Skills Map for Maths

LA/SEN – please refer to previous year skills if needed.
Co-ordinator – Miss Johnson and Miss Christopher

Multiplication and Division

		MULTIPLICATION & DIVISION FACTS					
Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Shares by dealing out a group of objects between two people.	Solves sharing problems using con-create objects up to 20 and between two and five people	*count in multiples of twos, fives and tens* (copied from Number and Place Value)	*count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward* (copied from Number and Place Value)	*count from 0 in multiples of 4, 8, 50 and 100* (copied from Number and Place Value)	*count in multiples of 6, 7, 9, 25 and 1 000* (copied from Number and Place Value)	*count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000* (copied from Number and Place Value)	
	Solves small number multiplication problems by sorting objects into small groups.		recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	recall multiplication and division facts for multiplication tables up to 12 × 12		
		MENTAL CALCULATION					
				write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit	use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by	multiply and divide numbers mentally drawing upon known facts	perform mental calculations, including with mixed operations and large numbers

			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						numbers times one-digit numbers, using mental and progressing to formal written methods (appears also in Written Methods)	1; multiplying together three numbers		
				show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot		recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers)	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	*associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. ³/₈)* (copied from Fractions)

WRITTEN CALCULATION								
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×),	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication

			division (÷) and equals (=) signs	for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (appears also in Mental Methods)		two-digit numbers	*use written division methods in cases where the answer has up to two decimal places* (copied from Fractions (including decimals)
						divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					recognise and use factor pairs and commutativity in	identify multiples and factors, including finding	identify common factors, common

						mental calculations (repeated)	all factor pairs of a number, and common factors of two numbers.	multiples and prime numbers
							know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	*use common factors to simplify fractions; use common multiples to express fractions in the same denomination* (copied from Fractions)
							establish whether a number up to 100 is prime and recall prime numbers up to 19	
							recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	*calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3* (copied from Measures)

ORDER OF OPERATIONS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					use their knowledge of the order of operations to carry out calculations involving the four operations
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS					
		estimate the answer to a calculation and use inverse operations to check answers (copied from Addition and Subtraction)	*estimate and use inverse operations to check answers to a calculation* (copied from Addition and Subtraction)		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy