National Curriculum Milestones Document

Multiplication and Division

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication and Division	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	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	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
		Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	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

		Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Recognise and use factor pairs and commutativity in mental calculations	Establish whether a number up to 100 is prime and recall prime numbers up to 19	Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
		Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts		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 two-digit numbers	Perform mental calculations, including with mixed operations and large numbers

				Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Multiply and divide numbers mentally drawing upon known facts	Identify common factors, common multiples and prime numbers
					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	Use their knowledge of the order of operations to carry out calculations involving the four operations
					Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Solve problems involving multiplication and division

					Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
					Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	
					Solve problems involving multiplication and division and a combination of these, including understanding the meaning of the equals sign	
					Solve problems involving multiplication and division	