Multiplication Progression Document

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Solves one-step problems involving multiplication by calculating the answer using concrete objects etc with the support of the teacher.	Can recall and use multiplication facts for the 2, 5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary	Recalls and uses multiplication facts for the 3, 4 and 8 multiplication tables.	Recalls multiplication facts for multiplication tables up to 12 x 12.	Identifies multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Multiplies multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
Recalls multiplication facts for the 10-multiplication table and counts in steps of 10 to answer questions.	Calculates mathematical statements for multiplication within the multiplication tables and write them using the multiplication (x) and equals (=) signs.	Writes and calculates mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.	Uses place value, known and derived facts to multiply mentally, including: multiplying by 0 and 1; multiplying together three numbers.	Knows and uses the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	Identifies common factors, common multiples and prime numbers.
Recalls and uses doubling facts for numbers up to double 10 and other significant doubles.	Shows that multiplication of two numbers can be done in any order.	Solves problems, including missing number problems, involving multiplication, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	Recognises and uses factor pairs and commutativity in mental calculations.	Establishes whether a number up to 100 is prime and recall prime numbers up to 19.	Uses their knowledge of the order of operations to carry out calculations involving the four operations.
Recognises odd and even numbers to 20.	Solves problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication facts, including problems in contexts.		Multiplies two-digit and three-digit numbers by a one-digit number using formal written layout.	Multiplies numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	Solves problems involving addition, subtraction, multiplication and division.
	Recognises odd and even numbers and explains how you know a particular number is odd or even.		Solves problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one	Multiplies numbers mentally drawing upon known facts.	Uses estimation to check answers to calculations and determines, in the context of a problem, an

			digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.		appropriate degree of accuracy.
				Multiplies whole numbers and those involving decimals by 10, 100 and 1000.	
				Recognises and uses square numbers and cube numbers, and the notation for squared (2) and cubed (3).	
				Solves problems involving multiplication including using their knowledge of factors and multiples, squares and cubes.	
				Solves problems involving multiplication and a combination of other operations, including understanding the meaning of the equals sign.	
				Solves problems involving multiplication including scaling by simple fractions and problems involving simple rates.	