Progression in Multiplication and Division – 2014 National Curriculum

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
begin to recall and use multiplication and division facts for 2 and 10 times tables. begin to recognise odd and even numbers.	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 x 12.	recall multiplication and division facts for multiplication tables up to 12 x 12 and use to solve problems beyond tables.	recall multiplication and division facts for multiplication tables up to 12 x 12 and use to solve problems beyond tables.
begin to recognise that 'lots of' can be written with (x) sign and sharing or grouping can be written with (÷) sign.	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know …	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.	multiply and divide numbers mentally drawing upon known facts.	perform mental calculations, including mixed operations and large numbers.
	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	understand and show the three other number sentences that derive from a multiplication or division number sentence using commutative and non-commutative law.	recognise and use factor pairs and commutativity in mental calculations.	identify multiples and factors, including finding all factor pairs.	identify common factors, common multiples and prime numbers.
			begin to understand and recognise prime numbers.	know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. - establish whether a number up to 100 is prime and recall prime numbers up to 19.	
		multiply and divide whole numbers by 10.	multiply and divide whole numbers by 10 and 100.	multiply and divide whole numbers and those involving decimals by 10,	multiply and divide whole numbers and those involving decimals by 10,

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				100 and 1000.	100 and 1000.
		… including for two-digit numbers times one-digit numbers, using mental and progressing to efficient written methods.	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-digit or two-digit number using an efficient written method, including long multiplication for two-digit numbers.	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.
	begin to understand remainders when dividing by a one-digit number.	divide numbers up to 2 digits by a one-digit number using the efficient method of short division and interpret remainders appropriately for the context.	divide numbers up to 3 digits by a one-digit number using the efficient method of short division and interpret remainders appropriately for the context.	divide numbers up to 4 digits by a one-digit number using the efficient 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 efficient written method of long division, and interpret reminders as whole number remainders, fractions, or by rounding, as appropriate for the context.
			begin to recognise and use square numbers as well as the notation for squared (^{2}).	recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).	recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}).
solve simple one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. *How many ways from 4*	solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which n objects are connected to m objects. *39 x 7= 30 x 7 + 9 x 7* *(2 x 3) x 4 = 2 x (3 x 4)*	solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors. solve problems involving multiplication and division and a combination of all four operations, including the understanding the	use the knowledge of the order of the operations to carry out calculations involving the four operations. solve problems involving multiplication and division. use estimation to check answers to calculations

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		hats and 3 gloves.		meaning of the equals sign. solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	and determine, in the context of a problem, levels of accuracy.