PROGRESSION IN MULTIPLICATION AND DIVISION B YEAR 4

Strand	What do I already know?	What am I going to be learning?	What will I learn in Year 5?
Mental calculation	show that multiplication of two numbers can be done in any order – Y2 write and calculate mathematical statements for multiplication and division using the multiplication tables that they know – Y3	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 recognise and use factor pairs and commutativity in mental calculations	multiply and divide numbers mentally drawing upon known facts multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
Written Calculation	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs (Y2) 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 method (Y3)	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 number
Inverse operations	estimate the answer to a calculation and use inverse operations to check answers (Y3)	estimate and use inverse operations to check answers to a calculation	
Problem solving	solve one-step problems involving multiplication and division, by calculating the answer using objects, pictures and arrays with the help of the teacher (Y1) solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context (Y2) solve problems, including missing number problems, involving multiplication and division, including scaling problems and correspondence problems (Y3)	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	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
Vocabulary	Multiply, divide, product, multiple, quotient, commutative, inverse operation, integer, remainder		