Progression in Multiplication/Division					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers. To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs. To recognise and use the inverse relationship between multiplication and division in calculations. To show that multiplication of two numbers can be done in any order(commutative) and division for one number by another cannot. To solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. .	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. To 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 methods and progressing to formal written methods. . To 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. Knowing when to round the quotient up or round down with remainders. Explain the effect of multiplying by 10 and multiples of 10 Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-	To recall multiplication facts for multiplication tables up to 12 × 12. To 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. To 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. To recognise and use factor pairs and commutativity in mental calculations. To multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Develop fluency in the formal written method of short division with exact answers	To identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. To solve problems involving multiplication and division where larger numbers are used by decomposing them into factors. To know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. To establish whether a number up to 100 is prime and recall prime numbers up to 19 To multiply and divide numbers mentally drawing upon known facts. To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	To perform mental calculations, including with mixed operations and large numbers. To identify common factors, common multiples and prime numbers. To solve problems involving addition, subtraction, multiplication and division. To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication. To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context. To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. To identify the value of each digit to three decimal

	Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.	digit numbers and progressing to the formal written methods of short multiplication and division.		To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers. To divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context. To recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3). To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	places and multiply and divide numbers by 10, 100, 1000 where the answers are up to three decimal places. To solve problems which require answers to be rounded to specified degrees of accuracy. To use their knowledge of the order of operations to carry out calculations involving the four operations.