



## Maths Progression of Skills (based on White Rose and Power Maths)

	F1	F2	ELG	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication and Division: Recall, Represent, Use	To learn about sharing between groups of people/toys. (Autumn/Spring/ Summer Term)	To be introduced to the concepts of sharing equally and doubling. (Summer Term)  To understand concept of odd and even numbers. (Summer Term)	<b>Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally</b>	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables including recognising odd and even numbers  Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	Recall and use multiplication and division facts for the three four and eight multiplication tables	Recall multiplication and division facts for multiplication tables up to 12 x 12  Use place value known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers  Recognise and use factor pairs and commutativity mental calculations	Identify multiples and factors including finding all factor pairs of a number and common factors of 2 numbers  Know and use 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  Recognise and use square numbers and cube numbers the notation for squared and cubed.	Identify common factors, common multiples and prime numbers  Use estimation to check to answers to calculations and determine, in the context of a problem. An appropriate degree of accuracy.	



Multiplication and Division: calculation	Experiment with their own symbols and marks as well as numerals (Autumn/Spring/Summer Term)	Automatically recall number bonds for numbers 0- 10 (Spring Term)  To begin to represent mathematical statements with appropriate symbols. (Autumn/Spring/Summer Term)	<b>Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and some number bonds to 10 including double facts</b>	Calculate mathematical statements for multiplication and division within 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	Multiply two digit and three digit numbers by a one digit number using formal written layout	Multiply numbers up to four digits by a one or two digit number using a formal written method including long multiplication for two digit numbers  Multiply and divide numbers mentally drawing upon known facts  Divide numbers up to four digits by a one digit number using formal written method of short division and interpret remainders appropriately for the context  multiply and divide whole numbers and those involving decimals by 10,100 and 1000	Multiply multi digit numbers up to four digits by a two digit whole number using the formal written method of long multiplication  Divide numbers up to four 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  Divide numbers up to four digits by a two digit number using the formal written method of short division where appropriate, interpreting remainders according to the context	
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								Perform mental calculations including with mixed operations and large numbers	
<b>Multiplication and Division: Solve Problems</b>				Solve 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 positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Solve problems involving multiplying and adding, including using the distributive law to multiply 2 digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes  solve problems involving multiplication and division, including scaling by simple fraction and problems involving simple rates	Solve problems involving addition subtraction multiplication and division	
<b>Multiplication and Division: Combined</b>							Solve problems involving addition subtraction multiplication and division and a combination of these, including understanding the meaning of the equals sign	Use their knowledge of the order of operations to carry out calculations involving the four operations	