		Multiplication and Division	When Vocabulary is first introduced
EYFS	Grouping and sharing (Spring)	• solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups • solve practical problems that involve grouping and sharing • explore counting on in steps of 2 from zero	Double Equals Share
	Doubling and halving (Spring)	• solve problems, including doubling, halving and sharing • Explore the relationship between doubling and halving	
Year 1	Multiplication and division (Summer)	• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher • recognise, find and name a half as one of two equal parts of a quantity • recognise, find and name a quarter as one of four equal parts of a quantity	Divide Facts Fraction Half Quarter Repeated Addition Repeated Subtraction Symbol
Year 2	Multiplication and division 2, 5 and 10 (Autumn)	• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts • 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 2, 5 and 10 multiplication tables, including recognising odd and even numbers	Calculate Commutative Denominator Division Inverse Operations Multiple Multiplication Multiply Numerator Operation Vinculum

	Multiplication and division (3x and 4x tables) (Summer)	• recall and use multiplication and division facts for the 3 and 4 multiplication tables (Y3) • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	
Year 3	Multiplication and division (Spring)	• recall and use multiplication and division facts for the 3 and 4 multiplication tables • count from zero in multiples of 4 • 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	Factor
	Deriving multiplication and division facts (Summer)	• recall and use multiplication and division facts for the 3 and 4 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods • 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	
	Securing multiplication	•write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for	

	& division (Summer)	twodigit numbers times one-digit numbers, using mental and progressing to formal written methods • recall and use multiplication and division facts for the 8 multiplication tables • count from zero in multiples of 8	
Year 4	Multiplication and division (Autumn)	• recall multiplication and division facts for multiplication tables up to 12 × 12 • 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 such as n objects are connected to m objects • recognise and use factor pairs and commutativity in mental calculations • 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 two-digit and three-digit numbers by a one-digit number using formal written layout	Dividend Divisor Quotient Short Division Short Multiplication
	Securing multiplication facts (Spring)	• recall multiplication and division facts for multiplication tables up to 12 × 12	

Year 5	Multiplication and division (Autumn)	• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • recognise and use square numbers and the notation for squared (2) • 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, 100 and 1000 • multiply and divide numbers mentally drawing upon known facts • solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • multiply numbers up to 4 digits by a one- or two-digit number using a formal written method • divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Common Factor Common Multiple Cube Number Divisible Long Division Long Multiplication Prime Factor Prime Number Remainder Square Number
Year 6	Multiplication and division (Autumn)	• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • multiply one-digit numbers with up to two decimal places by whole numbers • divide numbers up to 4 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	Factorise BODMAS Proportion

| | | • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
 • use written division methods in cases where the answer has up to two decimal places
• identify common factors, common multiples and prime numbers
• perform mental calculations, including with mixed operations and large numbers
• solve problem | |