



Number: Multiplication and Division

MULTIPLICATION & DIVISION FACTS						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>count in multiples of twos, fives and tens (copied from Number and Place Value)</p> <p>Unit 9 Book 1B Unit 12 Book 1C</p>	<p>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (copied from Number and Place Value)</p> <p>Unit 1, 4 & 5 Book 2A</p>	<p>count from 0 in multiples of 4, 8, 50 and 100 (copied from Number and Place Value)</p> <p>Unit 1 Book 3A Unit 4 Book 3A</p>	<p>count in multiples of 6, 7, 9, 25 and 1000 (copied from Number and Place Value)</p> <p>Unit 1, 2 & 5 Book 4A</p>	<p>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (copied from Number and Place Value)</p> <p>Unit 2 Book 5A</p>	
		<p>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p> <p>Unit 5 Book 2A Unit 6 Book 2B</p>	<p>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p> <p>Unit 4 Book 3A</p>	<p>recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Unit 5 Book 4A Unit 6 Book 4B</p>		
MENTAL CALCULATION						
			<p>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 (appears</p>	<p>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</p>	<p>multiply and divide numbers mentally drawing upon known facts</p> <p>Unit 5 Book 5A</p>	<p>perform mental calculations, including with mixed operations and large numbers</p> <p>Unit 3 Book 6A</p>



Number: Multiplication and Division

			also in Written Methods) Unit 5 Book 3B	Unit 5 Book 4A Unit 6 Book 4B		
		show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Unit 5 Book 2A		recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers) Unit 6 Book 4B	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 Unit 5 Book 5A	<i>associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$)</i> (copied from Fractions) Unit 7 Book 6B
WRITTEN CALCULATION						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs Unit 5 Book 2A Unit 6 Book 2B	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 (appears also in Mental Methods) Unit 5 Book 3B	multiply two-digit and three-digit numbers by a one-digit number using formal written layout Unit 6 Book 4B	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers Unit 7 Book 5B	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication Unit 2 Book 6A



Number: Multiplication and Division



					<p>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</p> <p>Unit 7 Book 5B</p>	<p>divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context 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</p> <p>Unit 2 Book 6A</p>
						<p><i>use written division methods in cases where the answer has up to two decimal places (copied from Fractions (including decimals))</i></p> <p>Unit 7 Book 6B</p>

PROPERTIES OF NUMBERS: MULTIPLES, FACTORS, PRIMES, SQUARE AND CUBE NUMBERS

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				<p>recognise and use factor pairs and commutativity in mental calculations (repeated)</p> <p>Unit 6 Book 4B</p>	<p>identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p> <p>Unit 5 Book 5A</p>	<p>identify common factors, common multiples and prime numbers</p> <p>Unit 3 Book 6A</p>



Number: Multiplication and Division

					<p>know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Unit 5 Book 5A</p>	<p><i>use common factors to simplify fractions; use common multiples to express fractions in the same denomination</i> (copied from Fractions) Unit 4 Book 6A</p>
					<p>establish whether a number up to 100 is prime and recall prime numbers up to 19 Unit 5 Book 5A</p>	
					<p>recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) Unit 5 Book 5A</p>	<p><i>calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm³) and cubic metres (m³), and extending to other units such as mm³ and km³</i> (copied from Measures) Unit 11 Book 6B</p>



Number: Multiplication and Division



ORDER OF OPERATIONS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					use their knowledge of the order of operations to carry out calculations involving the four operations Unit 3 Book 6A
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS					
		<i>estimate the answer to a calculation and use inverse operations to check answers</i> (copied from Addition and Subtraction) Unit 4 Book 3A	<i>estimate and use inverse operations to check answers to a calculation</i> (copied from Addition and Subtraction) Unit 6 Book 4B		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy



Number: Multiplication and Division



PROBLEM SOLVING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>ELG - they solve problems, including doubling, halving and sharing (fair sharing)</p>	<p>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 Unit 12 & 13 Book 1C</p>	<p>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts Unit 5 Book 2A Unit 6 Book 2B</p>	<p>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 Unit 5 Book 3B</p>	<p>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 Unit 6 Book 4B</p>	<p>solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Unit 5 Book 5A</p>	<p>solve problems involving addition, subtraction, multiplication and division Unit 2 Book 6A</p>
					<p>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Unit 3 & 5 Book 5A Unit 7 Book 5B</p>	
					<p>solve problems involving multiplication and division, including scaling by simple</p>	<p><i>solve problems involving similar shapes where the scale factor is known or can be found (copied from Ratio and Proportion)</i></p>



Number: Multiplication and Division



					fractions and problems involving simple rates Unit 10 Book 5B	Unit 12 Book 6B
--	--	--	--	--	--	-----------------