



Topic	Learning Objectives	Key Vocabulary	Learning Sequence	Linked Learning	Home Learning
<p>Numbers and the number system</p>	<p>Be able to identify the value of each digit in numbers given to three decimal places</p> <p>Be able to multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</p> <p>Be able to use negative numbers in context, and calculate intervals across zero</p> <p>Be able to identify common factors, common multiples and prime numbers</p>	<p>Place value</p> <p>Digit</p> <p>Negative number</p> <p>(Common) multiple</p> <p>(Common) factor</p> <p>Divisible</p> <p>Prime number</p> <p>Composite number</p>	<p>Write and read numbers up to and including 10 000 000</p> <p>Compare and order numbers up to and including 10 000 000</p> <p>Multiply numbers by 10, 100, 1000</p> <p>Divide numbers by 10, 100, 1000</p> <p>Understand and use negative numbers when working in context, such as temperature</p> <p>Calculate intervals across zero</p> <p>Find common multiples of two numbers</p> <p>Find common factors of two numbers</p>	<p>Understand and use place value in numbers with up to seven digits</p> <p>Multiply and divide whole numbers by 10, 100, 1000</p> <p>Multiply and divide numbers with one decimal place by 10, 100, 1000</p> <p>Know the meaning of 'factor' and 'multiple' and 'prime'</p>	<p>There will be a written piece of homework each week to reinforce key concepts.</p>
<p>Checking, approximating and estimating</p>	<p>Be able to solve problems which require answers to be rounded to specified degrees of accuracy</p> <p>Be able to use estimation to check answers to calculations</p> <p>Be able to round any whole number to a required degree of accuracy</p>	<p>Approximate</p> <p>Round</p> <p>Decimal place</p> <p>Solution</p> <p>Estimate</p> <p>Accuracy</p>	<p>Round a number to the nearest 10, 100, 1000</p> <p>Round a number to the nearest whole number</p> <p>Round a number to the nearest 1 and 2 decimal places</p> <p>Understand estimating as the process of finding a rough value of an answer or calculation</p>	<p>Approximate any number by rounding to the nearest 10, 100 or 1000, 10 000 or 100 000</p> <p>Approximate any number with one or two decimal places by rounding to the nearest whole number</p> <p>Approximate any number with two decimal places by rounding to the one decimal place</p> <p>Estimate addition (subtraction) calculations with up to four digits</p>	<p>There will be a written piece of homework each week to reinforce key concepts.</p>



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Calculating	<p>Be able to perform mental calculations, including with mixed operations and large numbers</p> <p>Be able to solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p>	<p>Addition</p> <p>Subtraction</p> <p>Sum, Total</p> <p>Difference, Minus, Less</p> <p>Operation</p> <p>Multiply, Multiplication, Times, Product</p> <p>Commutative</p>	<p>Carry out addition calculations mentally involving numbers up to 4 digits</p> <p>Carry out subtraction calculations mentally involving numbers up to 4 digits</p> <p>Solve addition and subtraction multi-step problems in context</p> <p>Multiply a two and three-digit numbers by a two-digit</p>	<p>Recall multiplication facts for multiplication tables up to 12×12</p> <p>Understand the commutativity of multiplication and addition</p> <p>Multiply a three-digit number by a two-digit number using short multiplication</p> <p>Use column addition and subtraction for numbers with more than four digits</p>	<p>There will be a written piece of homework each week to reinforce key concepts.</p>



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<p>Calculating (multiplication)</p>	<p>Be able to multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</p> <p>Be able to solve problems involving multiplication</p> <p>Be able to use their knowledge of the order of operations to carry out calculations</p>	<p>Operation Multiply, Product Commutative Factor</p>	<p>Multiply a two or three-digit numbers by a two-digit number</p> <p>Multiply a four-digit number by a two-digit number using long multiplication</p> <p>Carry out calculations involving mixture of multiplication and addition/subtraction</p> <p>Solve multi-step problems involving addition, subtraction and/or multiplication</p> <p>Check the order of magnitude of the solution to a calculation, including decimals</p>	<p>Recall multiplication facts for multiplication tables up to 12×12</p> <p>Understand the commutativity of multiplication and addition</p> <p>Multiply a three-digit number by a two-digit number using short multiplication</p>	<p>There will be a written piece of homework each week to reinforce key concepts.</p>
<p>Calculating (division)</p>	<p>Be able to divide numbers up to 4 digits by a two-digit whole number using long division</p> <p>Be able to divide numbers up to 4 digits by a two-digit number using short division</p> <p>Be able to use written division methods in cases where the answer has up to two decimal places</p> <p>Be able to solve problems involving division</p>	<p>Division Divisor Quotient Remainder Estimate</p>	<p>Divide a three-digit number by a two-digit number when there is no remainder</p> <p>Divide a three-digit number by a two-digit number when there is a remainder</p> <p>Divide a four-digit number by a two-digit number when there is no remainder</p> <p>Divide a four-digit number by a two-digit number when there is a remainder</p> <p>Understand how to interpret remainders to a division problem appropriately for the context</p> <p>Solve problems involving division</p>	<p>Recall division facts for multiplication tables up to 12×12</p> <p>Recall written methods of short division for numbers up to four-digits divided by a one-digit number</p> <p>Deal with remainders when carrying out division</p> <p>Solve problems involving the four operations</p>	<p>There will be a written piece of homework each week to reinforce key concepts.</p>



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Visualising and constructing	Be able to draw 2-D shapes using given dimensions and angles Be able to recognise, describe and build simple 3-D shapes, including making nets	Protractor Measure Cube Cuboid Cylinder Pyramid Prism Net Edge Face Vertex (Vertices) Visualise	Draw 2-D shapes given dimensions and angles Recognise prisms and pyramids Classify 3-D shapes including cylinders, cones and spheres Build 3-D shapes from nets Draw nets of 3-D shapes Solve 3-D problems using nets	Know the names of common 2D shapes Know the names of common 3D shapes Use a protractor to measure and draw angles	There will be a written piece of homework each week to reinforce key concepts.