

Y 3	Number and Place Value	Addition and Subtraction	Multiplication and division	Fractions	Measures	Properties of Shapes	Position and movement	Statistics
Expected	<p>Sufficient evidence shows the ability to:</p> <p>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). Compare and order numbers up to 1000. Identify, represent and estimate numbers using different representations. Read and write numbers up to 1000 in numerals and in words. Solve number problems and practical problems involving these ideas.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. 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. 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.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Recognise and show, using diagrams, equivalent fractions with small denominator. Add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$]. Compare and order unit fractions, and fractions with the same denominators. Solve problems that involve all of the above.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). Measure the perimeter of simple 2-D shapes. Add and subtract amounts of money to give change, using both £ and p in practical contexts. Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks].</p>	<p>Sufficient evidence shows the ability to:</p> <p>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).</p>	<p>Sufficient evidence shows the ability to:</p> <p>Interpret and present data using bar charts, pictograms and tables solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?']. Use information presented in scaled bar charts and pictograms and tables.</p>
Emerging	<p>Sufficient evidence shows the ability to:</p> <p>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. Recognise the place value of each digit in a two-digit number (tens, ones). Identify, represent and estimate numbers using different representations, including the number line. Compare and order numbers from 0 up to 100; use and = signs. Read and write numbers to at least 100 in numerals and in words. Use place value and number facts to solve problems</p>	<p>Sufficient evidence shows the ability to:</p> <p>Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods. Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and ten, two two-digit numbers, adding three one-digit numbers show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Recognise, find, name and write fractions $1/2$, $1/3$, $1/4$, $2/4$ and $3/4$ of a length, shape, set of objects or quantity. Write simple fractions for example, $1/2$ of 6 = 3 and recognise the equivalence of $2/4$ and $1/2$.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Compare and sequence intervals of time tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. Compare and sort common 2-D and 3-D shapes and everyday objects.</p>	<p>Sufficient evidence shows the ability to:</p> <p>Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).</p>	<p>Sufficient evidence shows the ability to:</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data.</p>

<p>Sufficient evidence shows the ability to: All aspects of number and place value at the national standard are embedded. Show fluency in the use of number facts and are able to make generalisations based on these to find unknown facts. Demonstrate a secure understanding of place value and have fluency when working with numbers up to and above 1000. Apply place value and number facts knowledge to solving problems involving number and place value in a range of familiar and unfamiliar contexts.</p>	<p>Sufficient evidence shows the ability to: All aspects of number - addition and subtraction at the national standard are embedded. Demonstrate rapid recall of number facts which they can use to generate new unknown facts. Use rapid recall of number facts to support their repertoire of calculation strategies, both mental and written. Use a range of efficient written and mental calculation strategies to use in calculation. Draw on their repertoire of calculation strategies in problem solving, explaining their choices and communicating their reasoning. Communicate their ideas as well as following a reasoned argument.</p>	<p>Sufficient evidence shows the ability to: All aspects of number – multiplication and division at the national standard are embedded. Demonstrate rapid recall of multiplication and division facts and the ability to use these to derive related facts to solve problems. Show a repertoire of written and mental calculation methods to solve problems that involve multiplication and division. They are able to communicate their reasoning and explain their thinking. Apply their understanding of multiplication and division to a wider range of problem solving contexts such as shape and measures.</p>	<p>Sufficient evidence shows the ability to: All aspects of number – fractions at the national standard are embedded Apply knowledge of fractions to solving problems of increasingly complexity. Show understanding of the connections between areas of learning in fractions such as the ability to recognise equivalency. And links to decimal place value Use fractions in problems solving, explaining reasoning in problems involving measures shape and statistics.</p>	<p>Sufficient evidence shows the ability to: All aspects of measurement at the national standard are embedded Use a wide range of tools when working with measures and can more fluently between different units. Use understanding of other areas of the curriculum to solve problems and calculations involving measures e.g. multiplication. Apply their understanding to solving problems of increasing complexity and can reason about their choices.</p>	<p>Sufficient evidence shows the ability to: All aspects of shape at the national standard are embedded Apply knowledge and understanding of the properties of shapes to a wider range of regular and irregular 2D and 3D shapes. Work with an increasing level of accuracy describing the properties of shapes. Apply their knowledge and understanding to solving problems of increasingly complexity as well as communicating their reasoning.</p>	<p>Sufficient evidence shows the ability to: All aspects of position and movement at the national standard are embedded. Apply knowledge of position and movement to solving problems. Use mathematical vocabulary to describe the position and movement of a given unit.</p>	<p>Sufficient evidence shows the ability to: All aspects of statistics at the national standard are embedded. Interpret data to answer questions related to problems across the curriculum. Interpret data and read scales with increased accuracy with different divisions using knowledge of number. Pose their own questions and formulate hypothesis and make decisions about how to collect data to solve problems. Reason and explain their decisions.</p>
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