

The vision for Mathematics at Brixworth Primary School

We, at Brixworth Primary School, envisage that every learner who leaves our school will have the three Maths concepts embedded in them as a learner:

Number Facts and knowledge

This concept involves having a clear understanding of a range of number facts including counting, number bonds, place value, times table and division facts and understanding shape and position.

Working with Number

This concept involves being able to manipulate numbers, comparing, measuring, using data and being able to carry out calculations.

Problem solving and Reasoning

This concept involves children understanding how to use their mathematical knowledge to solve problems and to be able to justify their answer.

Year 4

YEAR 4	Autumn Term 1	Autumn Term 2	Spring Term 3	Spring Term 4	Summer Term 5	Summer Term 6
Number and Place Value	<p>I can recognise the place value of each digit within a 4 digit number</p> <p>I can read and use Roman numerals up to 50</p> <p>I can count on and backwards through zero including negative numbers</p> <p>I can compare and order numbers beyond 1000</p> <p>I can count on and back in multiples of 25, 50, 100 and 1000</p>	<p>I can recognise the place value of each digit within a 4 digit number</p> <p>I can round whole and decimal numbers to the nearest 10, 100 and 1000</p> <p>I know 50, 100 and 1000 more or less than a given number</p>	<p>I can round whole numbers to the nearest 10, 100 and 1000</p> <p>I can count in multiples of 6 and 7.</p> <p>I can solve problems involving place value knowledge</p>	<p>I can count on and backwards through zero including negative numbers</p> <p>I can count in multiples of 6 and 7.</p> <p>I can identify, represent and estimate numbers using concrete and pictorial representations</p>	<p>I can read and use Roman numerals up to 50</p> <p>I can identify, represent and estimate numbers using concrete and pictorial representations</p>	<p>I can read and use Roman numerals up to 100.</p> <p>I can solve problems involving place value knowledge with increasingly large positive numbers</p>

Year 4

<p>Addition and Subtraction</p>	<p>I can add numbers up to 4 digits using multiple methods including column addition and use this to solve problems</p> <p>I can subtract numbers up to 4 digits using multiple methods including column subtraction and use this to solve problems</p> <p>I can solve problems involving + and -</p>	<p>I can add and subtract numbers up to 4 digits using multiple methods including column subtraction and use this to solve problems</p>	<p>I can use diagrams and bar models to solve 1 and 2 step addition and subtraction problems</p> <p>I can estimate answers to calculations</p>	<p>I can use the inverse operation to check answers</p>	<p>I can choose an appropriate method to solve 2 step problems using addition and subtraction</p>	<p>I can choose appropriate methods to solve real life problems and investigate number puzzles</p>
<p>Multiplication and Division</p>	<p>I can recall multiplication and division facts from the 6 and 7 times tables</p> <p>I can X two and three digit numbers a 1 digit number using a formal written layout.</p> <p>I can divide 2 and 3 digit numbers by 1 digit</p>	<p>I can recall multiplication and division facts from the 8 and 9 times tables</p> <p>I can X two and three digit numbers a 1 digit number using a formal written layout and solve problems</p>	<p>I can recall multiplication and division facts from the 6,7 8 and 9 times tables</p> <p>I can multiply 2 and 3 digit numbers by a 1 digit number and use this to solve problems</p>	<p>I can use known and derived facts to multiply and divide mentally e.g. $2 \times 3 = 6$ so $600 \div 3 = 200$</p> <p>I can recall multiplication and division facts for 12 times table.</p>	<p>I can recall multiplication/division facts for multiplication tables up to 12 X 12</p> <p>I can divide 2 and 3 digit numbers by 1 digit using multiple methods including formal methods and</p>	<p>I can recall multiplication/division facts for multiplication tables up to 12 X 12</p> <p>I can use known multiplication and division facts to find unknown facts</p>

	I can solve problems involving X and \div		I can multiply together 3 1-digit numbers (3 X 6 X 4)	I can recall multiplication and division facts from the 6,7 8 and 9 times tables	use this to solve problems	I can choose an appropriate method to solve 1 and 2 step problems.
Fractions	<p>I can count up and down in hundredths</p> <p>I know that hundredths arise from dividing an object by 100 and dividing tenths by 10</p> <p>I can add and subtract fractions with the same denominator</p>	<p>I can recognise common equivalent fractions using concrete, pictorial and abstract representations</p> <p>I can identify and write the decimal equivalence to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and any given tenth or hundredth</p>	<p>I can round decimals with 1 decimal place to the nearest whole number</p> <p>I can compare numbers with the same number of decimal places up to 2 decimal places</p> <p>I can divide a 1 or 2 digit number by 10 and 100</p>	<p>I can calculate the fraction of a shape, length or quantity using unit and non-unit fractions where the answer is a whole number</p> <p>I can apply my knowledge of fractions to solve simple problems with measure and money to 2 decimal places</p>	<p>I can add and subtract fractions with the same denominator</p> <p>I can compare numbers with the same number of decimal places up to 2 decimal places</p> <p>I can divide a 1 or 2 digit number by 10 and 100</p>	<p>I can apply my knowledge of fractions to solve simple problems with measure and money to 2 decimal numbers</p> <p>I can divide a 1 or 2 digit number by 10 and 100</p>

Year 4

<p>Measurement</p>	<p>I can read time to the nearest minute on a 12 and 24 hour clock</p> <p>I can convert between the 12 and 24 hour clock</p>	<p>I can measure objects accurately using mm, cm and m</p> <p>I can convert between units of measurement, cm to m, km, to m.</p>	<p>I can convert between units of measurement and use this to solve problems(time, money, length).</p> <p>I can convert time between analogue and digital clocks</p>	<p>I can measure and calculate the perimeter of quadrilateral in cm's and m's</p> <p>I can calculate the area of rectilinear shapes by counting squares</p>	<p>I can solve problems using my knowledge of perimeter and area</p>	<p>I can solve problems converting between different unit of measures (time, money and length)</p>
<p>Geometry</p>	<p>I can describe and compare 2d shapes by their properties and size</p> <p>I can identify lines of symmetry in 2D shapes presented in different orientations</p>	<p>I can compare and classify geometric shapes, including quads and triangles based on their properties.</p>	<p>I can identify and order acute, right and obtuse angles</p>	<p>I can describe positions on a 2D grid as coordinates in the first quadrant</p>	<p>I can translate shapes within the first quadrant left/right and up/down</p>	<p>I can plot points and draw sides to complete a polygon shape on a 2D grid</p>

Year 4

Statistics	I can read and interpret scales I can solve problems involving scales	I can represent data in bar charts, pictograms and tables I can solve comparison, sum and difference problems using data presented in bar charts, pictograms and tables	I can interpret information in tables, charts and graphs I can interpret scales for weight and temperature with increasing difficulty	I can create my own tables, charts and graphs to represent groups of data	I can solve comparison, sum and difference problems using information in bar charts, tables and graphs I can solve problems involving scales for weight and temperature.	I can solve comparison, sum and difference problems using information in bar charts, tables and graphs
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