

QPS: Year 4 Mathematics end of year goals (based on statutory and non-statutory DFE mathematical guidance and the DFE Ready to Progress Criteria)

Number and Place Value	Addition and Subtraction	Multiplication, Division	Fractions	Measurement	Geometry Properties of Shape Position, Direction & Motion	Statistics
Reasoning and problem solving	Reasoning and problem solving	Reasoning and problem solving	Reasoning and problem solving	Reasoning and problem solving	Reasoning and problem solving	Reasoning and problem solving
<p>Count backwards through zero to include negative numbers</p> <p>Count in multiples of 6, 7, 9, 25 and 1000</p> <p>Find 1000 more or less than a given number</p> <p>Identify, represent and estimate numbers using different representations</p> <p>Order and compare numbers beyond 1000</p> <p>Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</p> <p>Round any number to the nearest 10, 100 or 1000</p> <p>Solve number and practical problems that involve all of the above and with increasingly large positive numbers</p> <p>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</p>	<p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction <u>where appropriate</u></p> <p>Estimate and use inverse operations to check answers to a calculation</p> <p>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Complements to 1000</p> <p>Continue to add and subtract mentally, making choices when to calculate mentally and when to use written method.</p>	<p>Recall multiplication and division facts for multiplication tables up to 12×12 (facts for 6,7,9,11,12 are new)</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>Recognise and use factor pairs and commutativity in mental calculations</p> <p>Multiply and divide two-digit and three-digit numbers by a one-digit number using formal written layout</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</p> <p>Reproduce shape according to a scale factor.</p> <p>Doubling facts of multiples of 100 / 1000</p> <p>Doubling multiples of 10 beyond 100</p> <p>Interpret remainders, rounding up or down depending on context</p> <p>Short division of $TU \div U$ and $HTU \div U$</p> <p>Doubling numbers 1-1000</p> <p>Multiply and divide whole numbers and those involving decimals by 10 and 100.</p>	<p>Recognise and show, using diagrams, families of common equivalent fractions</p> <p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p> <p>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</p> <p>Add and subtract fractions with the same denominator</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths</p> <p>Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$</p> <p>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p> <p>Round decimals with one decimal place to the nearest whole number</p> <p>Compare numbers with the same number of decimal places up to two decimal places</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p> <p>Read, write, order and compare numbers with 2dp, or 3dp in measures.</p> <p>Complements of 1 to 1dp and 2dp.</p> <p>Find both unit and non-unit fractions of amounts.</p>	<p>Convert between different units of measure [for example, kilometre to metre; hour to minute]</p> <p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</p> <p>Find the area of rectilinear shapes by counting squares</p> <p>Estimate, compare and calculate different measures, including money in pounds and pence</p> <p>Read, write and convert time between analogue and digital 12- and 24-hour clocks</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p>	<p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size</p> <p>Identify lines of symmetry in 2-D shapes presented in different orientations</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p>Describe positions on a 2-D grid as coordinates in the first quadrant</p> <p>Describe movements between positions as translations of a given unit to the left/right and up/down</p> <p>Plot specified points and draw sides to complete a given polygon.</p>	<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>

