Being a mathematician in Four

A year four Mathematician

Number

- I know how to count in multiples of 6, 7, 9, 25 and 1,000.
- I know how to find 1,000 more or less than a number.
- I know how to count backwards through zero, working into negative numbers.
- I know how to recognise the place value of each digit in a 4-digit number
- I know how to order and compare numbers beyond 1,000.
- I know how to identify, represent and estimate numbers in different ways.
- I know how to round any number to the nearest 10, 100 or 1,000
- I know how to solve number and practical problems, using my understanding of number.
- I know how to read Roman numerals to 100.
- I know that over time the numeral system changed to include zero and place value.

Calculations

- I know how to add and subtract numbers with up to 4-digits using the column method.
- I know how to estimate and use inverse to check answers in a calculation.
- I know how to solve addition and subtraction 2-step problems, deciding which operations and methods to use and why.
- I know how to recall multiplication and division facts up to 12x12.
- I know how to use place value to multiply and divide mentally
- I know how to multiply and divide by 0 and 1.
- I know how to multiply three numbers together.
- I know how to recognise and use factor pairs in mental calculations.
- I know how to divide 2-digit numbers by a 1-digit number using bus stop method.
- I know how to solve trickier problems involving multiplying and adding.

Statistics

- I know how to interpret and present data using appropriate methods, including bar charts and time graphs.
- I know how to solve problems using information presented in bar charts, pictograms, tables and other graphs.

Fractions

- I know how to recognise and show, using diagrams, and families of common equivalent fractions.
- I know how to count up and down in hundredths
- I know that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- I know how to solve problems involving increasingly harder fractions and fractions of amounts.
- I know how to add and subtract fractions within the same denominator.
- I know how to recognise and write decimal equivalents of any number of tenths or hundredths.
- I recognise and write decimal equivalents to 1/4, 1/2 and ¾.
- I know how to divide a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
- I know how to round decimals with one decimal place to the nearest whole number.
- I know how to compare numbers with the same number of decimal places up to 2 decimal places.
- I know how to solve simple measure and money problems involving fractions and decimals to 2 decimal places.

Measurement

- I know how to convert between different units of measurements
- I know how to measure and calculate the perimeter of a rectangles in cm and m.
- I know how to find the area of rectangles by counting squares.
- I know how to estimate, compare and calculate different measures, including money in £ and p.
- I know how to read, write and convert time between analogue and digital 12 hour clocks.
- I know how to solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Shape

- I know how to compare and classify shapes, including quadrilateral and triangles based on their properties.
- I know how to identify acute and obtuse angles and compare and order angles up to two right angles by size.
- I know how to identify lines of symmetry in 2D shapes presented in different orientations.
- I know how to complete a simple figure using a line of symmetry.
- I know how to describe positions on a 2D grid as coordinates in the first quadrant.
- I know how to describe movements between positions as translations of a given unit to the left/right and up/down.
- I know how to plot specified points and draw sides to complete different polygons.