Year 6: Mathematics

Key performance indicator	Performance standard
Place value Rounds any whole number to a required degree of accuracy. Uses negative numbers in context and calculates intervals across zero. **Addition and Subtraction inc Algebra** - Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why - Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy **Algebra**: Uses simple formulae **Multiplication and division inc ratio and proportion; algebra; statistics** - Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication - Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context - Solves problems involving the calculation of percentages eg of measures and calculations such as 15 per cent of 360, and the use of percentages for comparison **Algebra:** Uses simple formulae **Statistics:** Calculates and interprets the mean as an average **Fractions** - Uses written division methods in cases where the answer has up to two decimal places - Solves problems which require answers to be rounded to specified degrees of accuracy - Recalls and uses equivalences between simple fractions, decimals and percentages, including in different contexts. **Measurement** Uses, reads, writes and converts between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places **Geometry** **Properties of shape** Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons **Position and direction** Draws and translates simple shapes on the coordinate plane and reflects them in the axes Interprets pie charts and line graphs and uses these to solve problems	**With reference to the KPIs** By the end of Y6, a child should be fluent in formal written methods for all four operations including long multiplication and division and in working with fractions, decimals and percentages and ratios, and make connections between them. A child should be able to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. A child is beginning to use the language of algebra as a tool for solving a variety of problems. A child can: - classify shapes with increasingly complex geometric properties and use the vocabulary needed to describe them; and - read, spell and pronounce mathematical vocabulary correctly.