



Year 6 Maths

Age Related Expectations



All children are assessed against the Age Related Expectations (ARE) within the different curriculum subjects. The ARE's are taken from the National Curriculum but are consolidated to reflect what we expect of a child. For example, three or four national curriculum targets might be summarised in one ARE. Judgements are generally based on a variety of different sources but will generally be a combination of on-going formative assessment in class, book work and formal summative testing.

Intro: Maths is comprised of a large number of strands although many of them are closely links. As a result, we will report our assessments under four main strands bringing together some of the smaller strands under broader headings.

	Key Performance Indicators	Age Related Expectations
Number and Place Value	<ul style="list-style-type: none"> - read, write, order and compare numbers up to 10 000 000 and determine the value of each digit - Rounds any whole number to a required degree of accuracy - Uses negative numbers in context and calculates intervals across zero - Count forwards and backwards in steps of powers of 10 for any number up to 10,000,000 - Multiply and divide any number by 10,100 and 1000. 	<p>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.</p> <p>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.</p>
Calculation	<ul style="list-style-type: none"> - 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 addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why - perform mental calculations, including with mixed operations and large numbers - identify common factors, common multiples and prime numbers - Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy 	<p>A child is beginning to use the language of algebra as a tool for solving a variety of problems</p> <p>A child can:</p> <ul style="list-style-type: none"> - Classify shapes with increasingly complex geometric properties and use the vocabulary needed to describe them; and - Read, spell and pronounce mathematical vocabulary correctly
Fractions	<ul style="list-style-type: none"> - use common factors to simplify fractions; use common multiples to express fractions in the same denomination - compare and order fractions, including fractions > 1 - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions - multiply simple pairs of proper fractions, writing the answer in its simplest form - divide proper fractions by whole numbers - 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 - multiply one-digit numbers with up to two decimal places by whole numbers - use written division methods in cases where the answer has up to two decimal places 	



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	Key Performance Indicators	Age Related Expectations
Geometry and Measures	<ul style="list-style-type: none">- Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons- Draw 2-D shapes using given dimensions and angles- Draw 2-D shapes using given dimensions and angles- Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.- describe positions on the full coordinate grid (all four quadrants)- Draws and translates simple shapes on the coordinate plane and reflects them in the axes- 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- recognise when it is possible to use formulae for area and volume of shapes- calculate the area of parallelograms and triangles	
Statistics*	<ul style="list-style-type: none">- Calculates and interprets the mean as an average- interpret and construct pie charts and line graphs and use these to solve problems	
Algebra*	<ul style="list-style-type: none">- Uses simple formulae- Understand that $2e$ represents $2 \times e$ or 2 lots of e- Solve a simple algebraic formula.	
Ratio and Proportion*	<ul style="list-style-type: none">- 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- Solves problems involving unequal sharing and grouping using knowledge of fractions and multiples	

*These strands will not be formally reported on but might be discussed by the teacher at parents evening.