



End of year expectations for Year 6 Maths

The National curriculum expects by the end of year 6, children can:

Using and Applying Maths	Solve multi-step problems, and problems involving fractions, decimals and percentages; choose and use appropriate calculation strategies at each stage, including calculator use
	Tabulate systematically the information in a problem or puzzle; identify and record the steps or calculations needed to solve it, using symbols where appropriate; interpret solutions in the original context and check their accuracy
	Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions
	Represent and interpret sequences, patterns and relationships involving numbers and shapes; suggest and test hypotheses; construct and use simple expressions and formulae in words then symbols (e.g. the cost of c pens at 15 pence each is $15c$ pence)
	Explain reasoning and conclusions, using words, symbols or diagrams as appropriate

Counting and understanding number	Find the difference between a positive and a negative integer, or two negative integers, in context
	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to three places, and position them on the number line
	Express a larger whole number as a fraction of a smaller one (e.g. recognise that 8 slices of a 5-slice pizza represents $\frac{8}{5}$ or $1\frac{3}{5}$ pizzas); simplify fractions by cancelling common factors; order a set of fractions by converting them to fractions with a common denominator
	Express one quantity as a percentage of another (e.g. express £400 as a percentage of £1000); find equivalent percentages, decimals and fractions

	Solve simple problems involving direct proportion by scaling quantities up or down
Knowing and using number facts	Use knowledge of place value and multiplication facts to 10×10 to derive related multiplication and division facts involving decimals (e.g. 0.8×7 , $4.8 \div 6$)
	Use knowledge of multiplication facts to derive quickly squares of numbers to 12×12 and the corresponding squares of multiples of 10
	Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit numbers
	Use approximations, inverse operations and tests of divisibility to estimate and check results

Calculating	Calculate mentally with integers and decimals: $U.t \pm U.t$, $TU \times U$, $TU \div U$, $U.t \times U$, $U.t \div U$
	Use efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer (EOY)
	Relate fractions to multiplication and division (e.g. $6 \div 2 = \frac{1}{2}$ of 6 = $6 \times \frac{1}{2}$); express a quotient as a fraction or decimal (e.g. $67 \div 5 = 13.4$ or $13\frac{2}{5}$); find fractions and percentages of whole-number quantities (e.g. $\frac{5}{8}$ of 96, 65% of £260)
	Use a calculator to solve problems involving multi-step calculations

Understanding	Describe, identify and visualise parallel and perpendicular edges or faces; use these properties to classify 2-D shapes and 3-D solids
	Make and draw shapes with increasing accuracy and apply knowledge of their properties

	Visualise and draw on grids of different types where a shape will be after reflection, after translations, or after rotation through 90° or 180° about its centre or one of its vertices
	Use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties
	Estimate angles, and use a protractor to measure and draw them, on their own and in shapes; calculate angles in a triangle or around a point

Measuring	Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750 ml, or vice versa)
	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments
	Calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares
Handling Data	Describe and predict outcomes from data using the language of chance or likelihood
	Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask
	Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts
	Describe and interpret results and solutions to problems using the mode, range, median and mean