

Overview of progression in Year 4

Number and place value

In Year 4, children use place value in four-digit numbers, such as 3742 is three thousands, seven hundreds, four tens and two ones. They learn to count in 6s, 7s, 9s, 25s and 1000s, and say 1000 more or less than a specific number. They encounter negative numbers by counting back past zero on number lines, and continue work on rounding (to the nearest 10, 100 or 1000) and estimation. Children are introduced to Roman numerals to 100 and find out how the number system has changed over time.

Addition and subtraction

Children extend previous years' work by adding and subtracting numbers with up to four digits, using mental and written methods, including columnar addition and subtraction. They keep practising mental methods of addition and subtraction as well as written methods, performing calculations increasingly quickly and confidently. They continue using estimation as well as inverse operations to help check answers.

Multiplication and division

Children learn the remaining multiplication tables up to the 12 multiplication table, and use facts from the tables to solve increasingly complex multiplication and division problems. They build on their work with mental methods of calculation in Year 3, using their knowledge of place value and number facts to multiply and divide confidently. They begin to use a formal written layout for multiplication when multiplying two-digit and three-digit numbers by one-digit numbers.

Fractions (including decimals)

Developing ideas from Year 3, children confidently count up and down in hundredths. They learn about and recognise equivalent fractions, simplifying them when necessary (for example, understanding that $\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$). They move on to understand and show families of equivalent fractions. They build on earlier work, practising adding and subtracting fractions with the same denominator ($\frac{2}{3} + \frac{7}{9} = 1\frac{1}{9}$). Children also work with decimal equivalents of tenths and hundredths and of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, understanding that decimals and fractions are different ways of expressing numbers. They round numbers with one decimal place to the nearest whole number, and compare numbers with the same number of decimal places, up to two decimal places. They use fractions and decimals to solve straightforward money and measure problems.

Measurement

In Year 3, children learned to measure the perimeter of 2D shapes; they now extend this, calculating the perimeter of rectilinear shapes including squares. They work out the area of rectilinear shapes by counting. Children compare digital clocks and analogue clocks, reading, writing and converting time between the two systems. They begin using £ and p notation to record money.

Geometry: properties of shapes

Children learn about a wider range of geometric shapes, including different types of triangles and quadrilaterals. They develop work on acute and obtuse angles from Year 3, comparing and ordering angles up to two right angles. They work with lines of symmetry in 2D shapes.

Geometry: position and direction

Children begin to work with a coordinate grid (first quadrant only), using coordinates to describe positions on a grid.

Statistics

Children are introduced to the difference between discrete and continuous data, using bar charts for discrete data (numbers of children travelling to school by different methods) and line graphs for continuous data (children's heights). Children will build further on their work with line graphs in Year 5.