



# Mathematics expectations

## Year 4

Number and Place Value			
Recognise the place value of each digit in a 4-digit number			
Identify the value of each digit to 2-decimal places			
Find 1,000 more or less than a given number			
Order and compare numbers beyond 1,000			
Round any number to the nearest 10, 100 or 1,000			
Count backwards through 0 to include negative numbers			
Count in multiples of 6			
Count in multiples of 7			
Count in multiples of 9			
Count in multiples of 25			
Count in multiples of 1,000			
Read Roman numerals to 100 and know that, over time, the numeral system changed to include the concept of zero and place value			

Addition and Subtraction			
Add numbers with up to 4-digits, using the formal written methods of column addition			
Subtract numbers with up to 4-digits, using the formal written methods of column subtraction			
Estimate and use inverse operations to check answers to a calculation			
Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why			

Multiplication and Division			
Recall and use multiplication facts for multiplication tables up to 12 x 12 verbally and in written form			
Recall and use division facts for multiplication tables up to 12 x 12 verbally and in written form			
Recognise and use factor pairs and commutativity in mental calculations			
Multiply 2 and 3-digit numbers by a 1-digit number using formal written layout			
Find the effect of dividing a 1 or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths			
Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying three numbers together			
Solve problems involving multiplying and dividing in a range of contexts			

Fractions			
Recognise and show, using diagrams, families of common equivalent fractions			
Count up and down in hundredths			
Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten			
Add and subtract fractions with the same denominator			
Recognise and write decimal equivalents of any number of tenths and hundreds			



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Recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$			
Round decimals with one decimal place to the nearest whole number			
Compare numbers with the same number of decimal places up to two decimal places			
Solve simple measure and money problems involving fractions and decimals to two decimal places			

### Measurement

Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m			
Find the area of rectilinear shapes by counting squares			
Estimate, calculate and compare mass			
Estimate, calculate and compare volume/capacity			
Estimate, compare and calculate money in pounds and pence			
Order temperatures including those below $0^{\circ}\text{C}$			
Convert between different units of measure (e.g. kilometre to metre; hour to minute)			
Read, write and convert time between analogue and digital 12 and 24-hour clocks			
Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days			

### Geometry: Shape

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes			
Identify lines of symmetry in 2-D shapes presented in different orientations			
Complete a simple symmetric figure with respect to a specific line of symmetry			
Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines			
Identify acute and obtuse angles and compare and order angles up to two right angles by size			
Use a variety of sorting diagrams to compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes			

### Geometry: Position and Direction

Describe positions on a 2-D grid as co-ordinates in the first quadrant			
Describe movements between positions as translations of a given unit to the left/right and up/down			
Plot specified points and draw sides to complete a given polygon			

### Statistics

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs			
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs			



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Greater Depth			
Independently and consistently apply skills and knowledge in all areas of the year group expectations			
Show a high level of fluency, confidence and resilience when faced with more challenging and complex problems			
Apply skills and knowledge to a range of contexts across the curriculum			
Organise ideas to make connections with other areas of learning in mathematics and across the curriculum			
Return to an aspect of mathematical learning after a break and still feel confident that they can apply skills and knowledge without difficulty			
Explain their understanding of mathematical concepts, skills and knowledge to others			