

Algebra	Numbers and the Number System	Calculating	Using and Applying Mathematics	Shape, Space and Measure	Handling Data
recognise sequences of numbers, including odd and even numbers	count up to 10 objects read, write numbers to 10 order numbers to 10 begin to use the fraction, one-half	understand addition as finding the total of two or more sets of objects understand subtraction as 'taking away' objects from a set and finding how many are left add and subtract numbers of objects to 10 begin to know some addition facts	use mathematics as an integral part of classroom activities represent their work with objects or pictures discuss their work draw simple conclusions from their work	use everyday language to describe properties of 2-D and 3-D shapes use everyday language to describe positions of 2-D and 3-D shapes measure and order objects using direct comparison order events	sort and classify objects represent their work demonstrate the criterion they have used
recognise a wider range of sequences	count sets of objects reliably begin to understand the place value of each digit; use this to order numbers up to 100	solve addition/subtraction problems involving up to 10 objects record their work	recognise and use a simple pattern or relationship select the mathematics they use in some classroom activities	use mathematical names for common 3-D and 2-D shapes describe their properties, including numbers of sides and corners describe the position of objects	sort objects and classify them using more than one criterion understand vocabulary relating to handling data
begin to understand the role of '=' (the 'equals' sign)	begin to use halves and quarters and relate the concept of half of a small quantity to the concept of half of a shape	use the knowledge that subtraction is the inverse of addition and understand halving as a way of 'undoing' doubling and vice versa use mental recall of addition and subtraction facts to 10	discuss their work using mathematical language predict what comes next in a simple number, shape or spatial pattern or sequence and give reasons for their opinions	distinguish between straight and turning movements, recognise right angles in turns and understand angle as a measurement of turn	collect and sort data to test a simple hypothesis record results in simple lists, tables, pictograms and block graphs
begin to use simple formulae expressed in words	understand place value in numbers to 1000 use place value to make approximations	use mental calculation strategies to solve number problems including those involving money and measures record their work in writing choose the appropriate operation when solving addition and subtraction problems	explain why an answer is correct select the mathematics they use in a wider range of classroom activities	begin to use a wider range of measures including to use everyday non-standard and standard units to measure length and mass begin to understand that numbers can be used not only to count discrete objects but also to describe continuous measures	communicate their findings, using the simple lists, tables, pictograms and block graphs they have recorded gather information
use and interpret coordinates in the first quadrant	recognise negative numbers in contexts such as temperature use simple fractions that are several parts of a whole and recognise when two simple fractions are equivalent	derive associated division facts from known multiplication facts add and subtract two-digit numbers mentally add and subtract three digit numbers using written method	try different approaches and find ways of overcoming difficulties that arise when they are solving problems begin to organise their work and check results	classify 3-D and 2-D shapes in various ways using mathematical properties such as reflective symmetry for 2-D shapes begin to recognise nets of familiar 3-D shapes, e.g. cube, cuboid, triangular prism, square-based pyramid	construct bar charts and pictograms, where the symbol represents a group of units use Venn and Carroll diagrams to record their sorting and classifying of information
construct, express in symbolic form, and use simple formulae involving one or two operations	begin to use decimal notation in contexts such as money recognise and describe number patterns	multiply and divide two digit numbers by 2, 3, 4 or 5 as well as 10 with whole number answers and remainders use mental recall of addition and subtraction facts to 20 in solving problems involving larger numbers	use and interpret mathematical symbols and diagrams understand a general statement by finding particular examples that match it	recognise shapes in different orientations and reflect shapes, presented on a grid, in a vertical or horizontal mirror line describe position and movement	extract and interpret information presented in simple tables, lists, bar charts and pictograms collect and record discrete data
use and interpret coordinates in all four quadrants	recognise and describe number relationships including multiple, factor and square use place value to multiply and divide whole numbers by 10 or 100	solve whole number problems including those involving multiplication or division that may give rise to remainders use a range of mental methods of computation with all operations	review their work and reasoning develop own strategies for solving problems	use a wider range of measures including non-standard units and standard metric units of length, capacity and mass in a range of contexts use standard units of time use the properties of 2-D and 3-D shapes	group data, where appropriate, in equal class intervals continue to use Venn and Carroll diagrams to record their sorting and classifying of information
	recognise approximate proportions of a whole and use simple fractions and percentages to describe these	recall multiplication facts up to 10×10 and quickly derive corresponding division facts use efficient written methods of addition and subtraction and of short multiplication and division	use their own strategies within mathematics and in applying mathematics to practical contexts begin to organise their work and check results	make 3-D models by linking given faces or edges and draw common 2-D shapes in different orientations on grids reflect simple shapes in a mirror line, translate shapes horizontally or vertically and begin to rotate a simple shape or object about its centre or a vertex	ask questions, plan how to answer them and collect the data required in probability, select methods based on equally likely outcomes and experimental evidence, as appropriate
	order decimals to three decimal places begin to understand simple ratio	multiply a simple decimal by a single digit solve problems with or without a calculator	present information and results in a clear and organised way search for a solution by trying out ideas of their own	choose and use appropriate units and instruments interpret, with appropriate accuracy, numbers on a range of measuring instruments find perimeters of simple shapes and find areas by counting squares	
	use understanding of place value to multiply and divide whole numbers and decimals by 10, 100 and 1000 and explain the effect	check the reasonableness of results with reference to the context or size of numbers use known facts, place value, knowledge of operations and brackets to calculate including using all four operations with decimals to two places	identify and obtain necessary information to carry through a task and solve mathematical problems check results, considering whether these are reasonable	use a wider range of properties of 2-D and 3-D shapes and identify all the symmetries of 2-D shapes use language associated with angle and know and use the angle sum of a triangle and that of angles at a point	understand and use the probability scale from 0 to 1 understand and use the mean of discrete data and compare two simple distributions, using the range and one of mode, median or mean
	round decimals to the nearest decimal place and order negative numbers in context recognise and use number patterns and relationships	use a calculator where appropriate to calculate fractions/percentages of quantities/measurements understand and use an appropriate non-calculator method for solving problems that involve multiplying and dividing any three digit number by any two-digit number	solve word problems and investigations from a range of contexts show understanding of situations by describing them mathematically using symbols, words and diagrams	reason about position and movement and transform shapes measure and draw angles to the nearest degree, when constructing models and drawing or using shapes read and interpret scales on a range of measuring instruments, explaining what each labelled division represents	understand that different outcomes may result from repeating an experiment interpret graphs and diagrams, including pie charts, and draw conclusions
	use equivalence between fractions and order fractions and decimals reduce a fraction to its simplest form by cancelling common factors	solve simple problems involving ordering, adding, subtracting negative numbers in context solve simple problems involving ratio and direct proportion	draw simple conclusions of their own and give an explanation of their reasoning	solve problems involving the conversion of units and make sensible estimates of a range of measures in relation to everyday situations understand and use the formula for the area of a rectangle and distinguish area from perimeter	create and interpret line graphs where the intermediate values have meaning
	understand simple ratio	apply inverse operations and approximate to check answers to problems are of the correct magnitude			

Key:

Level 1	
Level 2	
Level 3	
Level 4	
Level 5	

