Year 1 Maths

Expected standard at end of year

1	Count to and across 100 from any number
2	Count, read and write numbers to 100 in numerals
3	Read and write mathematical symbols: +, - and =
4	Identify "one more" and "one less"
5	Use number bonds and subtraction facts within 20
6	Add and subtract 1-digit and 2-digit numbers to 20, including zero
7	Recognise, find and name a half
8	Recognise, find and name a quarter
9	Measure and begin to record length, mass, volume and time
10	Recognise and know the value of all coins and notes
11	Use language to sequence events in chronological order
12	Recognise and use language relating to dates
13	Tell the time to the half-hour, including drawing clocks
14	Recognise and name common 2-D shapes
15	Recognise and name common 3-D shapes

Greater Depth

The child should be able to

- solve problems of greater complexity (i.e. where the approach is not immediately obvious), demonstrating creativity and imagination;

- independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics.

Year 2 Maths

Working Towards at end of year

1	read and write numbers in numerals up to 100.
2	partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources, e.g. base ten to support them.
3	add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus.
4	recall at least four of the six number bonds for 10 and reason about associated facts.
5	count in twos, fives and tens from 0 and use this to solve problems.
6	know the value of different coins.
7	name some common 2D and 3D shapes from a group of shapes or from pictures of the shapes and describe some of the properties.

Expected standard at end of year

1	read scales in divisions of ones, twos, fives and tens.
2	partition a two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.
3	add and subtract any 2 two-digit numbers using an efficient strategy, explain their method verbally, in pictures or using apparatus.
4	recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships.
5	recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary.
6	identify 1/4, 1/3, 1/2, 2/4, 3/4 of a number or shape, and know that all parts must be equal parts of a whole.
7	use different coins to make the same amount.
8	read the time on a clock to the nearest 15 minutes.
9	name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry.

Greater Depth at end of year

1	read scales (on a number line, a practical situation or graph axis) where not all numbers on the scale are given and estimate points in between.
2	recall and use multiplication and division facts for 2, 5 and 10 and make deductions of outside known multiplication facts.
3	use reasoning about numbers and relationships to solve more complex problems and explain their thinking.
4	solve unfamiliar word problems that involve more than one step.
5	read the time on a clock to the nearest 5 minutes.
6	describe the similarities and differences of 2D and 3D shapes, using their properties.

Year 3 Maths

Expected standard at end of year.

1	Count in multiples of 4, 8, 50 and 100
2	Compare and order numbers up to 1000
3	Add and subtract numbers mentally, including round numbers to HTU
4	Add and subtract using standard column method
5	Estimate answers to calculations and use the inverse to check answers
6	Know 3×, 4× and 8× tables
7	Count up and down in tenths
8	Understand that tenths are objectives or quantities divided into ten equal parts
9	Compare and order simple fractions
10	Recognise and show equivalent fractions
11	Find and write fractions of a set of objects
12	Add and subtract fractions with common denominators (less than one)
13	Measure, compare and calculate measures using standard units
14	Measure the perimeter of simple 2-D shapes
15	Add and subtract money, including giving change
16	Tell and write the time from an analogue clock, including using Roman numerals
17	Estimate and read time to the nearest minute
18	Identify horizontal, vertical, parallel and perpendicular lines
19	Identify whether angles are greater or less than a right angle
20	Interpret and present data using bar charts, pictograms and tables

Greater Depth

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Year 4 Maths

Expected standard at end of year.

1	Count backwards through zero, including negative numbers
2	Recognise place value in four-digit numbers
3	Round any number to the nearest 10, 100 or 1000
4	Know tables up to 12 × 12
5	Use place value and number facts to carry out mental calculations
6	Use factor pairs and commutativity in mental calculations
7	Use short multiplication method
8	Recognise and use hundredths
9	Recognise and write decimal equivalents to ¼, ½ and ¾
10	Divide one- or two-digit numbers by 10 and 100, using tenths and hundredths
11	Round decimals with one decimal place to the nearest whole number
12	Compare numbers up to two decimal places
13	Convert between different units of metric measurement, including money
14	Find the area of rectilinear shapes by counting squares
15	Solve problems converting units of time
16	Compare and classify shapes, including quadrilaterals and triangles
17	Complete a simple symmetric figure with respect to a specific line of symmetry.
18	Describe positions on a 2-D grid using co-ordinates
19	Describe translations using a given unit to the left/right and up/down
20	Interpret and present discrete and continuous data on appropriate graphs

Greater Depth

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Year 5 Maths

Expected standard at end of year.

1	Interpret negative numbers in context
2	Read Roman numerals to 1000, including years
3	Recognise and use square and cube numbers, and know the notation
4	Use rounding to check answers and determine accuracy
5	Identify multiples and factors, including finding factor pairs and common factors
6	Use vocabulary: prime numbers, prime factors and composite numbers
7	Know prime numbers up to 19
8	Multiply and divide numbers by 10, 100 or 1000, including decimals
9	Use long multiplication for multiplying numbers of up to 4 digits by one or two digits
10	Divide numbers using standard written short division
11	Convert between mixed numbers and improper fractions
12	Compare and order fractions whose denominators are multiples of the same number
13	Identify, name and write equivalent fractions including tenths and hundredths
14	Add and subtract fractions with denominators that are multiples of the same number
15	Multiply proper fractions and mixed numbers by whole numbers with support
16	Read and write decimal numbers as fractions
17	Round decimals with 2 decimals places to whole number or to one decimal place
18	Read, write, order and compare numbers with up to 3 decimal places
19	Recognise % symbol and explain as a fraction with denominator 100 (parts out of 100)
20	Understand and use common approximate conversions between metric and imperial
21	Measure and calculate the perimeter of composite rectilinear shapes
22	Calculate the area of rectangles, and estimate the area of irregular shapes
23	Use the properties of rectangles to find missing lengths and angles
24	Distinguish between regular and irregular polygons
25	Identify 3-d shapes from 2-d representations
25	Know angles are measured in degrees and compare acute, obtuse and reflex angles
27	Draw and measure angles to the nearest degree
28	Identify angles at a point, in a turn and on a straight line
29	Describe and represent the result of a reflection or translation
30	Complete, read and interpret information in tables, including timetables

Greater Depth

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Year 6 Maths

Expected standard at end of year.

1	Use negative numbers to calculate intervals across zero
2	Divide numbers using long division, interpreting the remainders as appropriate
3	Use order of operations to carry out calculations
4	Use common factors to simplify fractions
5	Compare and order fractions of any size
6	Add and subtract fractions with different denominators and mixed numbers
7	Multiply simple pairs of proper fractions
8	Divide proper fractions by whole numbers
9	Calculate decimal fraction equivalents for simple fractions
10	Multiply a number with up to two decimal places by whole numbers
11	Use written division with answers of up to two decimal places
12	Solve problems involving the calculation of percentages
13	Recall and use equivalences between fractions, decimals and percentages
14	Solve problems using ratio using multiplication and division facts
15	Solve problems involving similar shapes where the scale factor is known
16	Solve problems involving proportion, using knowledge of fractions and multiples
17	Use simple formulae
18	Generate and describe linear number sequences
19	Express missing number problems algebraically
20	Convert units of measure between smaller and larger units
21	Convert between miles and kilometres
22	Calculate the area of parallelograms and triangles
23	Calculate and compare volume of cubes and cuboids
24	Illustrate and name parts of a circle
25	Finding missing angles in triangles, quadrilaterals and regular polygons
25	Recognise vertically opposite angles and find missing angles
27	Describe positions on the full co-ordinate grid
28	Translate shapes on a co-ordinate grid and reflect in the axes
29	Construct and interpret pie charts
30	Calculate the mean as an average

Greater Depth

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- independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics.