

Maths - Year 2 Key Objectives (Statutory)

Number – Number and Place Value

- 1 Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- 2 Recognise the place value of each digit in a two-digit number (tens, ones)
- 3 Identify, represent and estimate numbers using different representations, including the number line
- 4 Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs
- 5 Read and write numbers to at least 100 in numerals and in words
- 6 Use place value and number facts to solve problems

Number – Addition and Subtraction

- 7 Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- 8 Solve problems with addition and subtraction by applying knowledge of mental and written methods
- 9 Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100
- 10 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones, a two-digit number and tens, two two-digit numbers and adding three one-digit numbers
- 11 Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- 12 Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Number – Multiplication and Division

- 13 Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- 14 Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs
- 15 Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- 16 Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts

Number – Fractions

- 17 Recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity
- 18 Write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Measurement

- 19 Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- 20 Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$
- 21 Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- 22 Find different combinations of coins that equal the same amounts of money
- 23 Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- 24 Compare and sequence intervals of time
- 25 Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times

26 Know the number of minutes in an hour and the number of hours in a day

Geometry – Properties of Shapes

27 Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line

28 Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces

29 Identify 2-D shapes on the surface of 3-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)

30 Compare and sort common 2-D and 3-D shapes and everyday objects

Geometry – Position and Direction

31 Order and arrange combinations of mathematical objects in patterns and sequences

32 Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)

Statistics

33 Interpret and construct simple pictograms, tally charts, block diagrams and simple tables

34 Ask and answer simple questions by counting the number of objects in each category and sort the categories by quantity

35 Ask and answer questions about totalling and comparing categorical data

Maths - Year 2 Key Objectives (Non-Statutory)

Number – Number and Place Value

1 Practise counting, reading, writing and comparing numbers to at least 100 and solve a variety of related problems to develop fluency. Count in multiples of three to support later understanding of a third

2 Partition numbers in different ways (for example, $23 = 20 + 3$ and $23 = 10 + 13$) to support subtraction. Begin to understand zero as a place holder

Number – Addition and subtraction

3 Extend understanding of the language of addition and subtraction to include sum and difference

4 Practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using $3 + 7 = 10$; $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$; $100 - 70 = 30$ and $70 = 100 - 30$. Check calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$)

5 Record addition and subtraction in columns to support place value and prepare for formal written methods with larger numbers

Number – Multiplication and Division

6 Use a variety of language to describe multiplication and division

7 Practise becoming fluent in the 2, 5 and 10 multiplication tables and connect them to each other. Connect the 10 multiplication table to place value and the 5 multiplication table to the divisions on the clock face. Begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations

8 Work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. Begin to relate these to fractions and measures (for example, $40 \div 2 = 20$, 20 is a half of 40). Use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$)

Number – Fractions

9 Use fractions as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. Connect unit fractions to equal sharing and grouping, to numbers when they can be calculated and to measures, finding fractions of lengths, quantities, sets of objects or shapes

10 Count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (for example, $1\frac{1}{4}$, $1\frac{2}{4}$ (or $1\frac{1}{2}$), $1\frac{3}{4}$, 2) to reinforce the concept of fractions as numbers and that they can add up to more than one

Measurement

11 Use standard units of measurement with increasing accuracy and use knowledge of the number system. Use the appropriate language and record using standard abbreviations

12 Compare measures including simple multiples such as 'half as high'; 'twice as wide'

13 Become fluent in telling the time on analogue clocks and record it

14 Become fluent in counting and recognising coins. Read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately

Geometry – Properties of Shapes

15 Handle and name a wide variety of common 2-D and 3-D shapes including quadrilaterals and polygons, cuboids, prisms and cones and identify the properties of each shape (for example, number of sides, number of faces). Identify, compare and sort shapes on the basis of their properties and use vocabulary precisely such as sides, edges, vertices and faces

16 Read and write names for shapes that are appropriate for their word reading and spelling

17 Draw lines and shapes using a straight edge

Geometry – Position and Direction

18 Work with patterns of shapes, including those in different orientations

19 Use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so and programming robots using instructions given in right angles)

Statistics

20 Record, interpret, collate, organise and compare information (for example, using many-to-one correspondence in pictograms with simple ratios 2, 5, 10)