

National Curriculum Year 2

Number and Place Value

Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward

Recognise the place value of each digit in a two-digit number (tens, ones)
Recognise the place value of each digit in two-digit numbers and compose and decompose two-digit numbers using standard and non-standard partitioning.

Identify, represent and estimate numbers using different representations, including the number line
Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.

Compare and order numbers from 0 up to 100; use <, > and = signs

Read and write numbers to at least 100 in numerals and in words

Use place value and number facts to solve problems.

Addition and Subtraction

Solve problems with addition and subtraction:
☐ using concrete objects and pictorial representations, including those involving numbers, quantities and measures
☐ applying their increasing knowledge of mental and written methods
Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".

Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
Secure fluency in addition and subtraction facts within 10, through continued practice.

Add and subtract across 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
- ☐ adding three one-digit numbers

Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.

Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Multiplication and Division

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ($\times$), division ($\div$) and equals ($=$) signs
Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.

Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations.

Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Fractions

Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity

Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Measurement

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

Compare and order lengths, mass, volume/capacity and record the results using >, < and =

Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value

Find different combinations of coins that equal the same amounts of money

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change

Compare and sequence intervals of time

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

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

Geometry – Properties of Shape

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

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

Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.

Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]

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

Geometry – Position and Direction

Order and arrange combinations of mathematical objects in patterns and sequences

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

Statistics

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

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

Ask and answer questions about totalling and comparing categorical data.