

# National Curriculum 2014 – Mathematics Overview

## 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)
- identify, represent and estimate numbers using different representations, including the number line
- 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 & pictorial representations, incl. those involving numbers, quantities & measures
  - applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
  - $TU \pm U$
  - TU number and tens
  - $TU \pm TU$
  - $U + U + U$
- show that  $+$  of two numbers can be done in any order (commutative) and  $-$  of one number from another cannot
- recognise and use the inverse relationship between  $+/-$  and use this to check calculations & solve missing number problems

### Multiplication and Division

- recall and use  $\times/\div$  facts for the 2/5/10 multiplication tables, including recognising odd/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
- show that  $\times$  of two numbers can be done in any order (commutative) and  $\div$  of one number by another cannot
- solve problems involving  $\times$  and  $\div$ , using materials, arrays, repeated addition, mental methods, and  $\times/\div$  facts, including problems in contexts

### Fractions (including decimals and percentages)

- 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 e.g.  $\frac{1}{2}$  of 6 = 3 and recognise the equivalence of two quarters and one half

## 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  $\pm$  of money of the same unit, including giving change
- compare and sequence intervals of time
- tell and write the time to 5 mins, including  $\frac{1}{4}$  past/to the hour and draw the hands on a clock face to show times
- know the number of minutes in an hour and the number of hours in a day

## Geometry

- identify/describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3D shapes, including the number of edges, vertices and faces
- identify 2D shapes on the surface of 3D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
- compare and sort common 2D and 3D shapes and everyday objects.
- 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/answer simple questions by counting the number of objects in each category & sorting categories by quantity
- ask and answer questions about totalling and comparing categorical data