## Year 2 New Primary NC in Mathematics Statutory requirements

## NUMBER: Number and place value

- count in steps of 2,3 , and 5 from 0 , and count in tens from any number, forward or backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- identify, represent \& 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 and pictorial representations, including those involving numbers, quantities and 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:
- a two-digit number and ones
- a two-digit number and tens
- two two-digit numbers
- adding three one-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 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
- 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 $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity
- write simple fractions e.g. $1 / 2$ 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 $(\mathrm{m} / \mathrm{cm})$; mass $(\mathrm{kg} / \mathrm{g})$; temperature $\left({ }^{\circ} \mathrm{C}\right)$; capacity (litres $\left./ \mathrm{ml}\right)$ to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare \& order lengths, mass, volume/capacity \& record results using $\rangle,\langle \&=$
- 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 shapes

- identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices \& faces
- identify 2-D shapes on the surface of 3-D shapes, e.g. a circle on a cylinder \& a triangle on a pyramid
- compare and sort common 2-D and 3-D shapes and everyday objects.


## 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.

Y2 previously: 'Find one half, one quarter and three quarters of shapes \& sets of objects'. Brought down from Y3: 'Find unit fractions of numbers \& quantities' References to $1 / 3$ and $2 / 4$ are new, as is writing simple fractions and recognising the equivalence of two quarters and one half (Y3 previously: reading \& writing proper fractions \& using diagrams to compare fractions \& establish equivalents)

Reference to standard units for measuring temperature is new.
Using the symbols ( $£, p$ ) was previously a Y3 objective: 'Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure', although Y2 objectives did previously state that pupils should be able to 'solve problems involving addition, subtraction, multiplication or division in the context of pounds and pence'.
Brought down from Y3: 'Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock'. Y2 previously stated: 'Read the time to the quarter hour'. Writing the time and drawing the hands on a clock face are new.

## Comments

Y2 previously: 'Count up to 100 objects by grouping them and counting in 10s, 5 s and $2 \mathrm{~s}^{\prime}$;
Brought down from Y3: 'Count on from and back to 0 in single digit steps or multiples of $10^{\prime}$.

## Counting in steps of 3 is new.

Y2 previously: 'Solve problems including addition, subtraction, multiplication and division in context of numbers, measures or pounds and pence; 'present solutions to puzzles and problems in an organized way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences'.
Y2 previously only pairs that total 20 and pairs of multiples of 10 with totals up to 100.

Brought down from Y3: 'Derive and recall all addition and subtraction facts for each number to 20 , sums and differences of multiples of 10 and number pairs that total 100'.
Previously only stated 'add or subtract mentally a 1 digit number, a multiple of 10 to or from any 2 digit number; use practical and informal written methods to add and subtract 2 digit numbers'. No mention of adding three 1 digit numbers.
Brought up from Y1: 'Recognise that addition can be done in any order'.

Reference to commutative law of multiplication and division is new.

Y2 previously stated: 'Represent repeated addition and arrays as multiplication, and sharing and repeated subtraction (grouping) as division.' Never previously stipulated solving problems.
'edges, vertices and faces' were not specified in the old framework, but taught through 'describe the properties of'
The reference to identifying 2-D shapes on the surface of 3-D shapes is new, although identifying 'shapes from pictures of them in different positions and orientations' was previously a Y2 objective.

Y2 previously stated: 'Describe patterns and relationships involving numbers and shapes', the mention of 'order and arrange' is new.
Reference to three-quarter turns is completely new. Aspects of recognising that a straight line is equivalent to 2 right angles previously appeared in $Y 3$.

Some aspects moved from Y1: 'present outcomes using practical resources, pictures, block graphs or pictograms'. Y2 previously: 'collecting and recording data is lists \& tables; represent the data as block graphs or pictograms to show results'. 'Interpreting' and 'tally charts' moved down from Y3: 'Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations'. Asking questions not previously referred to.

