Mathematics Programme of Study – Year 4

Number and Place Value

- I can read Roman numerals to 100 (I to C) and understand how the numeral system changed including the concept of 'zero' and place value.
- I can solve number and practical problems using increasingly large positive numbers.
- I can round any number to the nearest 10, 100 or 1000.
- I can identify, represent and estimate numbers.
- I can order and compare numbers beyond 1000.
- I can recognise the place value of each digit in a four digit number.
- I can count backwards through zero to include negative numbers.
- I can find 1000 more or less than a given number.
- I can count in multiples of 6, 7, 9, 25 and 1,000.

Addition and Subtraction

- I can solve mental calculations with increasingly large numbers.
- I can solve two-step subtraction problems in contexts, deciding which operations and methods to use and why.
- I can solve two-step addition problems in contexts, deciding which operations and methods to use and why.
- I can use inverses to check answers to calculations.
- I can estimate to check answers to calculations.
- I can subtract numbers with up to 4 digits using columnar subtraction.
- I can add numbers with up to 4 digits using columnar addition.

Multiplication and Division

- I can use place value, known and derived facts to divide up to three numbers mentally.
- I can scale numbers and use correspondence to solve problems in which n objects are connected to m objects.
- I can use partitioning to multiply two digit numbers by one digit.
- I can solve problems using multiplication and division.
- I can multiply three digit numbers by a one digit number.
- I can multiply two digit numbers by a one digit number using the formal written method.
- I can recognise and use factor pairs in mental calculations.
- I can divide two digit numbers by a one digit number using a written method including remainders.
- I can use place value, known and derived facts to multiply up to three numbers mentally.
- I can recall x and ÷ facts for multiplication tables up to 12 x12.

Fractions and Decimals

- I can solve simple measure and money problems involving fractions and decimals up to two decimal places.
- I can compare numbers with the same number of decimal places.
- I can round decimals with one decimal place to the nearest whole number.
- I can find the effect of dividing a number by 10 and 100 and identify the value of digits in the answer as ones, tens and hundreds.
- I can recognise and write decimal equivalents to ¼, ½, ¾.
- I can recognise and write decimal equivalents of any number of 10ths or 100ths.
- I can + and - fractions with the same denominator.
- I can find fractions of quantities including non-unit fractions.
- I can recognise and show, using diagrams, families of common equivalent fractions.
- I can count up and down in 100ths and recognise that 100ths arise when dividing an object by 100 and dividing 10ths by 10.

Measurement

- I can solve problems involving converting from hours to minutes: minutes to seconds; years to months and weeks to days.
- I can read, write and convert time between analogue and digital 12 and 24 hour clocks.
- I can estimate, compare and calculate different measures, including money in pounds and pence.
- I can find the area of rectilinear shapes by counting in squares.
- I can convert between different units of measure (e.g. kilometre to metre; hour to minute).
- I can measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.

Geometry

- I can plot specified points and draw sides to complete a given polygon.
- I can translate shapes.
- I can describe a position on a 2-d grid as co-ordinates in the first quadrant.
- I can complete a symmetric figure with respect to a specific line of symmetry.
- I can identify lines of symmetry in 2d shapes presented in different orientations.
- I can compare and order angles up to two right angles by size.
- I can identify acute and obtuse angles.
- I can compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

Statistics

- I can use a range of scales when interpreting and presenting data.
- I can solve 'difference' problems using information presented in bar charts, pictograms, tables and simple line graphs.
- I can solve 'sum' problems using information presented in bar charts, pictograms, tables and simple line graphs.
- I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and simple line graphs.
- I can interpret and present data using line graphs.
- I can interpret and present data using bar charts.

Mental strategies

- I can halve any even number to 200.
- I can identify the remainder when dividing by 2, 5, or 10.
- I can, with jottings, find unit fractions and simple non-unit fractions of numbers and quantities.
- I can, with jottings, double and multiple of 10 or 100.
- I know doubles of numbers to 100 and corresponding halves.
- I can use partitioning to calculate mentally.
- I can, with jottings, +/- 2/3 digit multiples of 10.
- I can add near doubles of 2 digit numbers.
- I can, with jottings, +/- a near multiple of 10.
- I can, with jottings, + /- pairs of 2 digit numbers. Inc. crossing 10's and 100's boundary.
- I can recall pairs of fractions that total 1.
- I know what must be added to any 3 digit number to make the next multiple of 100.
- I can recall sums and differences of pairs of multiples of 10. 100.

Programme of study objectives taken from 'The National Curriculum 2014'

Developed by St Michaels CofE Bamford

Mental Strategies taken from 'Teaching Children to Calculate Mentally'