St Nicolas Cof E Academy

Mathematics – Year Three

Strand	Unit	Lessons	NC Objectives
Number - number and place value	1 Place value within 1,000	Counting in 100s Representing numbers to 1,000 100s, 10s and 1s (1) 100s, 10s and 1s (2) The number line to 1,000 (1) The number line to 1,000 (2) Finding 1, 10 and 100 more or less Comparing numbers to 1,000 (1) Comparing numbers to 1,000 (2) Ordering numbers to 1,000 Counting in 50s	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Read and write numbers up to 1,000 in numerals and in words Identify, represent and estimate numbers using different representations Read and write numbers up to 1,000 in numerals and in words Compare and order numbers up to 1,000 Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Solve number problems and practical problems involving these ideas
Number – addition and subtraction	2 Addition and subtraction (1)	Adding and subtracting 100s Adding and subtracting a 3-digit number and 1s Adding a 3-digit number and 1s Subtracting 1s from a 3-digit number Adding and subtracting a 3-digit number and 10s Adding a 3-digit number and 10s Subtracting 10s from a 3-digit number Adding and subtracting a 3-digit and 2-digit number Adding a 3-digit and 2-digit number Subtracting a 2-digit number from a 3-digit number	Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
Number – addition and subtraction	3 Addition and subtraction (2)	Addition and subtraction patterns Adding two 3-digit numbers (1) Adding two 3-digit numbers (2) Subtracting a 3-digit number from a 3-digit number (1) Subtracting a 3-digit number from a 3-digit number (2) Estimating answers to additions and subtractions Checking strategies Problem solving – addition and subtraction (1) Problem solving – addition and subtraction (2)	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers
Number – multiplication and division	4 Multiplication and division (1)	Multiplication – equal grouping Multiplying by 3 Dividing by 3 3 times-table	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

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		Multiplying by 4 Dividing by 4 4 times-table Multiplying by 8 Dividing by 8 8 times-table Problem solving – multiplication and division (1) Problem solving – multiplication and division (2) Understanding divisibility (1) Understanding divisibility (2) Related facts – multiplication and division	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects
Number – multiplication and division	**5** Multiplication and division (2)	Comparing multiplication and division statements (1) Related multiplication calculations Related multiplication and division calculations Comparing multiplication and division statements (2) Multiplying a 2-digit number by a 1-digit number (1) Multiplying a 2-digit number by a 1-digit number (2) Multiplying a 2-digit number by a 1-digit number (3) Dividing a 2-digit number by a 1-digit number (1) Dividing a 2-digit number by a 1-digit number (2) Dividing a 2-digit number by a 1-digit number (3) How many ways? Problem solving - mixed problems (1) Problem solving - mixed problems (2) Problem solving - mixed problems (3)	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
Measurement	6 Money	Pounds and pence Converting pounds and pence Adding money Subtracting amounts of money Problem solving – money	Add and subtract amounts of money to give change, using both £ and p in practical contexts
Statistics	7 Statistics	Pictograms (1) Pictograms (2) Bar charts (1) Bar charts (2) Tables	Interpret and present data using bar charts, pictograms and tables Solve one-step and two-step questions [for example, 'how many more?' and 'how many fewer?'] using information presented in scaled bar charts and pictograms and tables
Measurement	8 Length	Measuring length (1) Measuring length (2) Equivalent lengths - metres and centimetres Equivalent lengths - centimetres and millimetres	Measure, compare, add and subtract: lengths (m/ cm/mm); mass (kg/g); volume/capacity (l/ml) Measure the perimeter of simple 2-d shapes

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		Comparing lengths Adding lengths Subtracting lengths Measuring the perimeter (1) Measuring the perimeter (2) Problem solving - length (1) Problem solving - length (2)	
Number – fractions	9 Fractions	Unit and non-unit fractions Making the whole Tenths (1) Tenths (2) Fractions as numbers (1) Fractions as numbers (2) Fractions as numbers (3) Fractions of a set of objects (1) Fractions of a set of objects (2) Fractions of a set of objects (3) Problem solving – fractions	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Compare and order unit fractions, and fractions with the same denominators Solve problems that involve all of the above
Number – fractions	10 Fractions (2)	Equivalent fractions (1) Equivalent fractions (2) Equivalent fractions (3) Comparing fractions Comparing and ordering fractions Adding fractions Subtracting fractions Problem solving – adding and subtracting fractions Problem solving – fractions of measures	Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions, and fractions with the same denominators Add and subtract fractions with the same denominator within one whole (for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$) Solve problems that involve all of the above Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
Measurement	11 Time	Months and years Hours in a day Estimating time Telling time to 5 minutes Telling time to the minute (1) Telling time to the minute (2) Telling time to the minute (3) Finding the duration Comparing duration Finding start and end times Measuring time in seconds	Know the number of seconds in a minute and the number of days in each month, year and leap year Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24- hour clocks

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			Compare durations of events (for example to calculate the time taken by particular events or tasks)
Geometry – properties of shapes	12 Angles and properties of shapes	Turns and angles Right angles in shapes Comparing angles Drawing accurately Types of line (1) Types of line (2) Recognising and describing 2D shapes Recognising and describing 3D shapes Constructing 3D shapes	Recognise angles as a property of shape or a description of a turn Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Measurement	13 Mass	Measuring mass (1) Measuring mass (2) Measuring mass (3) Comparing masses Adding and subtracting masses Problem solving – mass Measuring capacity (1)	Measure, compare, add and subtract: lengths (m/ cm/mm); mass (kg/g); volume/capacity (l/ml)
Measurement	14 Capacity	Measuring capacity (1) Measuring capacity (2) Measuring capacity (3) Comparing capacities Adding and subtracting capacities Problem solving – capacity	Measure, compare, add and subtract: lengths (m/ cm/mm); mass (kg/g); volume/capacity (l/ml)