



Corporation Road Community Primary School

Year 3/4 Maths LTP

Maths: Year 3/4

Vision: At Corporation Road we want all of our children to be competent mathematicians. We desire our pupils to be able to work confidently with a range of number, representations and calculations. At Corporation Road we quality first teaching which equips our pupils with: a fluency of basic number facts and calculation methods; the ability to apply them to reason and solve problems; and the competence and confidence to use them in other subject areas. Pupils build upon their prior knowledge and make links between different concepts in maths. Assessment is used to inform teachers what children can do and informs the next steps of learning. We want children to understand that getting things wrong is part of the learning process and develop a growth mind-set. When introducing a new concept, teachers use a variety of visual representations to ensure the children have a depth of knowledge. Teachers move from concrete to pictorial to abstract in order to scaffold the learning effectively. We understand that mathematical talk is vital when deepening the learning and encourage this in all lessons. We want our children to work together to solve problems and to verbally reason with their peers. We are passionate about children building their procedural fluency and conceptual understanding in all mathematical concepts.

Learning Sequence

Children will be exposed to all mathematical concepts throughout the year. Where concepts are revisited then the focus is on children becoming fluent in the first instance and when the concept is revisited then the focus will be on deepening the learning to ensure children can reason and problem solve with the concept. At Corporation Road we believe that children need to be fluent first to ensure they become confident when tackling more complex problems later on.

Domains

Number and Place Value

Children should be able to work confidently and recognise the place value of numbers up to 10,000,000; representing these numbers in a variety of ways. Children should be able to count in powers of ten from any number and recognise the place value of each digit in larger numbers.

Calculations (Addition, Subtraction, Multiplication and Division)

Pupils should be fluent in written methods for all four operations, including long multiplication and division.

Fractions, Decimals and Percentages

Children should be able to recognise the place value of fractions, calculate using fractions and use equivalent fractions decimals and percentages confidently.

Geometry and Position

Children will be able to confidently work with 2D and 3D shapes and representations of these shapes. They will be able to plot points and shapes using all four quadrants.

Measurement

Children will be able to convert between different units of metric measures and convert between some units of metric and imperial measurements. Children will be able to calculate the area and perimeter of common 2D shapes.

Statistics

Children will be able to read and interpret a wide range of graphs and charts, including timetables. They will be able to contrast their own using a set of discrete data.

Autumn

Domains Covered	Number of Weeks	Year 3 Objectives	Year 4 Objectives
Number and Place Value	4	<ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, and ones) and compare and order numbers up to 1000, including reading and writing numbers up to 1000 in numerals and in words. Find 10 or 100 more or less than a given number. Count from 0 in multiples of 50 and 100 	<ul style="list-style-type: none"> Recognise the place value of each digit in a four-digit number, and order and compare numbers beyond 1000. (thousands, hundreds, tens, and ones) Count in multiples of 6, 7, 9, 25 and 1000 and use these to recognise and use factor pairs. Find 1000 more or less than a given number and round any number to the nearest 10, 100 or 1000.
Addition and Subtraction	4	<ul style="list-style-type: none"> Add and subtract numbers mentally (crossing the 10s barrier), including: a three-digit number and one; a three-digit number and tens; a three-digit number and hundreds. 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

		<ul style="list-style-type: none"> Solve number & word problems, including missing number problems, using number facts and more complex addition and subtraction. (if $4+5 = 9$, then $40+50 = 90$) Add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction (introducing regrouping e.g. $91 - 73$). 	
Multiplication and Division	4	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Count from 0 in multiples of 50 and 100 	<ul style="list-style-type: none"> Recall multiplication and division facts for multiplication tables up to 12×12. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
Fractions and Decimals	3	<ul style="list-style-type: none"> 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. Recognise, find and write fractions of a discrete set of objects and use as numbers: unit fractions and non-unit fractions with small denominators. Add and subtract fractions with the same denominator within one whole (for example $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$). Compare and order unit fractions. Recognise and show using diagrams, equivalent fractions with small denominators. 	<ul style="list-style-type: none"> Recognise and show families of common equivalent fractions and know decimal equivalents of tenths, hundredths, quarter half and three quarters. Count up and down in hundredths; recognise that hundredths arise when dividing an object or a one-digit number by one hundred and dividing tenths by ten. Add and subtract fractions with the same denominator, within and beyond one whole one.
Spring			
Place Value	2	<ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, and ones) and compare and order numbers up to 1000, including reading and writing numbers up to 1000 in numerals and in words. Find 10 or 100 more or less than a given number. Count from 0 in multiples of 50 and 100 	<ul style="list-style-type: none"> Recognise the place value of each digit in a four-digit number, and order and compare numbers beyond 1000. (thousands, hundreds, tens, and ones) Count in multiples of 6, 7, 9, 25 and 1000 and use these to recognise and use factor pairs. Find 1000 more or less than a given number and round any number to the nearest 10, 100 or 1000. Read and write Roman Numerals to 100 (I to C). Count backwards through zero to include negative numbers.
Addition and Subtraction	2	<ul style="list-style-type: none"> Add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction (introducing regrouping e.g. $91 - 73$). Solve number & word problems, including missing number problems, using number facts and more complex addition and subtraction. (if $4+5 = 9$, then $40+50 = 90$) 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
Statistics	2	<ul style="list-style-type: none"> Present data, interpret and solve one and 2 step questions using bar charts, pictograms and tables. 	<ul style="list-style-type: none"> Present data, interpret and solve one and 2 step questions using bar charts, pictograms and tables.
Multiplication and Division	2	<ul style="list-style-type: none"> Write, manipulate and calculate mathematical statements for multiplication and division, including for 10×10 numbers, using mental and progressing to formal written methods. Solve number & word problems, including missing number problems, using number facts and more complex division and multiplication, for example $3 \times 4 = 12$ so $3 \times 40 = 120$. 	<ul style="list-style-type: none"> Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Solve calculation problems involving two-step addition, subtraction, multiplication and division in contexts, deciding which operations to use and why, and estimate and use inverse operations to check answers to a calculation.

			<ul style="list-style-type: none"> Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
Fractions	2	<ul style="list-style-type: none"> Recognise, find and write fractions of a discrete set of objects and use as numbers: unit fractions and non-unit fractions with small denominators. Add and subtract fractions with the same denominator within one whole (for example $\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$). Compare and order unit fractions. Recognise and show using diagrams, equivalent fractions with small denominators. 	<ul style="list-style-type: none"> Add and subtract fractions with the same denominator, within and beyond one whole one. Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Round decimals with one decimal place to the nearest whole number and compare numbers with the same number of decimal places up to two decimal places. Solve problems; involving increasingly harder fractions to calculate quantities or divide quantities; of measure involving fractions and decimals to two decimal places.
Measurement	2	<ul style="list-style-type: none"> Tell and write the time to the nearest five minutes on an analogue and digital (24 hours) clock. Read and write Roman Numerals up to I – XII, including on a clock face. Knows the number of seconds in a minute and the number of days in each month, year and leap year. Comparing time and calculating durations of events in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m., p.m., morning, afternoon, noon and midnight. 	<ul style="list-style-type: none"> Read, write and convert time between analogue and digital 12- and 24-hour clocks and solve problems duration problems.
Summer			
Geometry and Position & Direction	3	<ul style="list-style-type: none"> To measure and work out the perimeter of simple 2-D shapes. Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them. Recognise angles as a property of shape and can identify right angles (how many make a $\frac{1}{2}$, $\frac{3}{4}$ of a turn or complete turn); identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. 	<ul style="list-style-type: none"> Compare and classify geometric shapes, including quadrilaterals and all types of triangles, based on their properties and sizes, and identify and compare acute and obtuse angles up to 180 degrees within shapes. Identify lines of symmetry in 2-D shapes presented in different orientations and complete a simple symmetrical figure with respect to a line of symmetry. Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres and area of a rectilinear shape by counting squares. Use coordinates in first quadrant and plot points and draw sides to complete a given polygon Describe positions and translate left/right, up/down movements on a 2-D grid as coordinates
Measurement	2	<ul style="list-style-type: none"> Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). Add and subtract amounts of money to give change, using both £ and p in practical contexts. 	<ul style="list-style-type: none"> Convert between different units of measure (for example, kilometre to metre; hour to minute; minutes to seconds; years to months). Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres and area of a rectilinear shape by counting squares. Estimate, compare and calculate different measures, including money in pounds and pence
Place Value	2	<ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, and ones) and compare and order numbers up to 1000, including reading and writing numbers up to 1000 in numerals and in words. Find 10 or 100 more or less than a given number. 	<ul style="list-style-type: none"> Recognise the place value of each digit in a four-digit number, and order and compare numbers beyond 1000. (thousands, hundreds, tens, and ones) Count in multiples of 6, 7, 9, 25 and 1000 and use these to recognise and use factor pairs.

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Addition and Subtraction	2	<ul style="list-style-type: none"> Estimate the answer to a calculation and use inverse operations to check answers for addition and subtraction. Add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction (introducing regrouping e.g. 91 - 73). Solve number & word problems, including missing number problems, using number facts and more complex addition and subtraction. (if $4+5 = 9$, then $40+50 = 90$) 	<ul style="list-style-type: none"> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Solve calculation problems involving two-step addition, subtraction, multiplication and division in contexts, deciding which operations to use and why, and estimate and use inverse operations to check answers to a calculation.
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