



Love Care Respect

*To aspire to being outstanding in everything we
do, by always aiming higher.*

"Let your light shine in all you say and do."

Matthew 5:16

Maths Overview - Years 3 and 4

Teaching sequence

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
Autumn	Number: Place Value				Number: Addition and Subtraction				Measurement: Length and Perimeter		Measurement: Area	Assessment
Spring	Number: Multiplication and Division					Measurement: Time			Measurement: Mass and Capacity	Statistics		Assessment
Summer	Number: Fractions				Number: Decimals		Measurement: Time		Geometry: Properties of Shape		Geometry: Position and Direction	Assessment

National Curriculum Targets for Year 3 and 4

Place Value

Year 3

Compare and order numbers up to 1000
Read and write numbers up to 1000 in numerals and words
Understand the value of each digit in a 3 digit number
Count in tens and hundreds and can add or subtract 10 or 100 from any given number using more or less

Year 4

Compare and order numbers beyond 1000
Understand the value of each digit in a 4 digit number
Say 1000 more or less than any given number
Count backwards through zero to include negative numbers
Round any whole number to the nearest 10, 100 or 1000
Read Roman Numerals from 1-100

Multiplication and Division

Year 3

Use the grid method to calculate multiplication maths stories

Year 4

Multiply 3 numbers, combining them in different ways and using knowledge of numbers facts to make this easier e.g. $2 \times 6 \times 5 = 10 \times 6$
Use a formal vertical method to multiply a 2 digit or 3 digit number by a 1 digit number
Understand the effect of multiplying and dividing by 0 or 1
Divide 2 and 3 digit numbers using efficient written methods and using related multiplication facts
Recognise factor pairs of a number

Addition and Subtraction

Year 3

Add and subtract 2 digit and 3 digit numbers using column method
Add and subtract numbers mentally, including a 3 digit number and ones, a 3 digit number and 10s and a 3 digit number and 100s

Year 4

Add and subtract 4 digit numbers using column method
Use inverse operations to check calculations

Fractions and Decimals

Year 3

Recognise and show, using diagrams, simple equivalent fractions
Add, subtract, compare and order fractions with the same denominator
Count up and down in $\frac{1}{10}$
Recognise fractions of objects and numbers with small denominators

Year 4

Recognise common equivalent fractions
Recognise and write decimal equivalents with any number of $\frac{1}{10}$ or $\frac{1}{100}$
Recognise a hundredth as a whole divided into 100 equal parts, and as 10 parts of a tenth
Write the decimal equivalent of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
Round a decimal with one decimal place to the nearest whole number
Compare and order decimals with the same number of decimal places up to two decimal places
Find the effect of dividing one and two digit numbers by 10 and 100 and identify the value of the digits in the answer as units, tenths and hundredths

Shape

Year 3

Draw 2D shapes and describe them using my knowledge of sides and angles

Recognise right angles in 2D shapes and say if an angle is greater or less than a right angle

Recognise a 3D shape in different orientations

Make 3D shapes using modelling materials and name and describe their properties

Identify right angles and describe how right angles can make up $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and a whole turn recognising angle as a property of shape or description of a turn

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Year 4

Name, describe and sort a variety of quadrilaterals and triangles based on their properties

Identify and name acute and obtuse angles and compare and order angles

Identify lines of symmetry in 2D shapes presented in different orientations

Complete symmetrical shapes and patterns with respect to a specific line of symmetry

Position and Direction

Year 4

Describe positions on a 2D grid as co-ordinates in the first quadrant

Translate shapes on a grid and describe #movement using left, right, up, down

Complete polygons by giving a missing co-ordinate on a grid

Statistics

Year 3

Solve one step problems using the information presented in charts and graphs

Solve 2 step problems using the information presented in charts and graphs e.g. how many more/fewer?

Present and interpret data in charts and graphs including using a scale of 2, 5 and 10

Year 4

Interpret data presented in a range of graphical representations with a greater range of scales

Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Present and interpret continuous data in the form of time (line) graphs recognising that it is recording a change over time

Present discrete data using appropriate graphical methods

Times Tables

Year 3

Count from 0 in multiples of 4, 8, 50 and 100

Recall and use the multiplication and division facts for the 3, 4 and 8 times table

Year 4

Recall and use the multiplication and division facts for the 6, 7 and 9 times table

Recall and use all the multiplication and division facts for tables up to 12 x 12

Measurement

Year 3

Measure, compare, add and subtract: length (m,cm,mm); mass (kg,g); volume/capacity (l,ml)

Understand and use vocabulary such as o'clock, am, pm, noon and midnight, morning and afternoon

Calculate and compare time durations (seconds, minutes, hours)

Tell and write the time on an analogue clock to the nearest minute, including using Roman numerals from I – XII, in 12 hour and 24 hour clocks

Record time in seconds, minutes and hours and can compare lengths of time (e.g. which is longer)

Solve money problems involving addition and finding the change (both £ and pence) in practical contexts

Measure the perimeter of simple 2D shapes

Solve money problems involving addition and finding the change (both £ and pence) in practical contexts

Solve simple scaling problems (e.g. twice as long)

Solve 1 step word problems involving multiplication and division and missing number problems

Solve missing number problems for addition, subtraction, multiplication and division with numbers up to 100 using my knowledge of number facts and the relationship between operations

Year 4

Estimate, compare and calculate measures, including money in £ and p

Convert between units of measure; km to m, Kg to g, litres to ml, p to £

Convert hours to minutes, minutes to seconds, years to months or weeks to days

Read, write and convert time between analogue and digital 12 and 24 hour clocks

Solve problems involving calculating lengths of time

Calculate the perimeter of rectangles including squares

Find the area of rectangles by counting squares

Calculate the area of rectangles using multiplication

Solve more complex scaling problems, e.g. 8 times as high

Solve 2 step word problems involving all 4 operations, deciding which operations to use and when

Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities

Solve simple measure and money problems involving fractions and decimals to 2 decimal places

Monday – Arithmetic Day – Every Week

<p>Term 1</p>	<p>MMS3 Arithmetic 1:</p> <p>Block 1</p> <ul style="list-style-type: none"> Respond to <i>I will act the Real Story, you will write the Maths Story</i> (including the answer), for addition and subtraction of 1 digit numbers, halves, quarters and mixed numbers, e.g. Copy and calculate the answers to vertical additions and subtractions with tricky unit columns. $1\frac{1}{2} + 2 - \frac{1}{4} = 3\frac{1}{4}$ <p>Block 2</p> <ul style="list-style-type: none"> Write Maths Stories for all four operations using fifths. Write Maths Stories as vertical additions and subtractions and calculate tricky tens columns.
<p>Term 2</p>	<p>MMS3 Arithmetic 1</p> <p>Block 3</p> <ul style="list-style-type: none"> Write Maths Stories for all operations including fifths and sevenths with mixed numbers (no mixed denominations). Write addition and subtraction Maths Stories as vertical additions (with tricky units and tens columns) and calculate answers. <p>MMS3 Arithmetic 2</p> <p>Block 1</p> <ul style="list-style-type: none"> Calculate fractions of quantities using cups, e.g. $\frac{2}{3}$ of 6 = 4
<p>Term 3</p>	<p>MMS3 Arithmetic 1</p> <p>Block 4</p> <ul style="list-style-type: none"> Write Maths Stories as vertical additions and subtractions (with tricky units or tens columns) and calculate answers, e.g. $2\frac{4}{5} + 1\frac{3}{5} = 3\frac{7}{5} = 4\frac{2}{5}$ <p>Block 5</p> <ul style="list-style-type: none"> Write Maths Stories as vertical additions and subtractions (with tricky units, tens or hundreds columns) and calculate answers.

<p>Term 4</p>	<p>MMS4 Arithmetic 1</p> <p>Block 1</p> <ul style="list-style-type: none"> Calculate Maths Stories for all four operations with mixed numbers, 1 digit whole numbers, halves and quarters, using maths tables and cups, e.g. $2\frac{1}{2} - 1\frac{1}{4} + \frac{1}{4} + 3\frac{1}{4} = 4\frac{3}{4}$ Mentally calculate Maths Stories combining addition, subtraction and multiplication with mixed numbers, 1 digit whole numbers, halves and quarters, e.g. $\frac{1}{2} \times 4 - \frac{1}{4} \times 3 = 1\frac{1}{4}$ <p>MMS4 Arithmetic 2</p> <p>Block 4</p> <ul style="list-style-type: none"> Calculate division Maths Stories with remainders and write remainders as a number and as a fraction, e.g. $43 \div 5 = 8 \text{ r } 3 \text{ or } 8\frac{3}{5}$
<p>Term 5</p>	<p>MMS4 Arithmetic 1</p> <p>Block 2</p> <ul style="list-style-type: none"> Read and write decimal fractions to three decimal places, e.g. 0.1, 0.01, 0.41, 0.041, 0.421 Read and write numbers written in decimal notation (to three places) as vulgar fractions using tenths, hundredths or thousandths as the denomination, e.g. read 0.1 as one tenth and write it as 1/10. Mentally calculate addition and subtraction combined with multiplication Maths Stories with decimal fractions, e.g. <p>MMS3 Arithmetic 2 $0.02 \times 3 - 0.01 \times 4 = 0.02$</p> <p>Block 4</p> <ul style="list-style-type: none"> Calculate answers to addition, subtraction, multiplication and division Maths Stories, including tenths written as fractions and decimal fractions.
<p>Term 6</p>	<p>MMS4 Arithmetic 1</p> <p>Block 3</p> <ul style="list-style-type: none"> Calculate vertical additions and subtractions with decimal fractions (no tricky columns). Use a grid to multiply two 2 digit numbers (TU x TU), e.g. $23 \times 21 = 483$ <p>MMS4 Arithmetic 2</p> <p>Block 1</p> <ul style="list-style-type: none"> Use a grid to multiply two 2 digit numbers (TU x TU), e.g. $23 \times 21 = 483$