We follow the National Curriculum for Maths and teach using the schemes of work from Maths No Problem

	Autumn	Spring	Summer
Y1	**Numbers to ten** **Place Value** **Addition and Subtraction within 10** Pupils can: Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs. **Position and Direction** **Numbers to 20** **Addition and subtraction within 20** **Shapes and Patterns** Pupils can: Read and write numbers from 1 to 20 in numerals and words. Represent and use number bonds and related subtraction facts within 20. add and subtract one-digit and two-digit numbers to 20, including zero. Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. Describe position, direction and movement, including whole, half, quarter and three quarter turns.	**Length and Height** **Numbers to 40** **Addition and Subtraction Word Problems** **Multiplication** **Division** Pupils Can: Compare, describe and solve practical problems for lengths and heights. Measure and begin to record lengths and heights Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9. Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. **Fractions** **Numbers to 100** **Time** **Money** Pupils Can: Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens. Given a number, identify one more and one less. Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later].	**Volume** **Capacity** **Mass** **Space** Pupils Can: Compare, describe and solve practical problems for: mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] Measure and begin to record the following: mass/weight, capacity and volume. Describe position, direction and movement, including whole, half, quarter and three quarter turns.

		Measure and begin to record time (hours, minutes, seconds). Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]. Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Recognise and know the value of different denominations of coins and notes.	
Y2/3	**Numbers to 100 / Numbers to 1000** **2/3 Digit Addition and Subtraction** Pupils Can: Count in age appropriate multiples. Find 10 or 100 more or less than a given number. Recognise the place value of each digit in a two-digit number ((hundreds),tens, ones). *Compare and order numbers up to 1000.* Identify, represent and estimate numbers using different representations, including the number line. Use <> and = signs. Read and write numbers to at least 100/1000 in numerals and in words. Use place value and number facts to solve problems. Add and subtract numbers mentally within their appropriate age range. Solve problems with addition and subtraction 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 100/1000.	**Mass** **Volume** **Word Problems involving the four operations** Pupils can: Choose and use appropriate standard units to estimate and measure mass (kg/g); capacity (litres/ml) to the nearest appropriate unit, scales and measuring vessels. Compare and order mass, volume/capacity and record the results using >, < and = Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. *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.*	**Capacity** **Time** **Money** **Temperature** **Handling Data / Statistics** Pupils Can: Choose and use appropriate standard units to estimate and measure temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using, scales, thermometers and measuring vessels. Compare and order volume/capacity and record the results using >, < and = 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,

Add and subtract numbers using concrete objects, pictorial representations, and mentally, within their appropriate age range.
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 solve missing number problems.
Use formal written methods of columnar addition and subtraction.

Multiplication and Division of 2,5,10 / 3,4,8
Length
Pupils Can:
Recall and use multiplication and division facts for age appropriate 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 (×), division (÷) and equals (=) signs.
Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
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.

Fractions
Shape / Angles + Perimeter
Pupils Can:
Recognise, find, name and write fractions within their appropriate age range.
Write simple fractions within their appropriate age range.
Add and subtract fractions with the same denominator within one whole [for example, 7 5 + 7 1 = 7 6]
Compare and order unit fractions, and fractions with the same 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.
Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators *recognise and show, using diagrams, equivalent fractions with small denominators.*
Solve problems that involve all of the above.

Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.
Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
Compare and sort common 2-D and 3-D shapes and everyday objects.
Measure 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 or a description of a turn.

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.
Know the number of seconds in a minute and the number of days in each month, year and leap year.

Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clock.
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, a.m./p.m., morning, afternoon, noon and midnight
Compare durations of events [for example to calculate the time taken by particular events or tasks].

Interpret, construct and present simple pictograms, tally charts, block diagrams and simple tables.
Ask and answer simple/ one-step 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.

	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); using rulers, Compare and order lengths, and record the results using >, < and = Measure, compare, add and subtract: lengths (m/cm/mm);	*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.* *Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.*	
Y4/5	**Numbers to 10,000 / 1,000,000** **Whole Numbers Addition and Subtraction** Pupils Can: Count in age appropriate multiples. find 1000 more or less than a given number Count backwards through zero to include negative numbers. Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1000 / 10,000 100,000 Solve number and practical problems that involve all of the above and with increasingly large positive numbers. **Multiplication and Division of Whole Numbers** Pupils Can: Recall multiplication and division facts for multiplication tables up to 12 × 12. 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. Recognise and use factor pairs and commutativity	**Graphs / Statistics** **Money** **Time** Pupils Can: Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. Complete, read and interpret information in tables, including timetables. Estimate, compare and calculate different measures, including money in pounds and pence. *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.* Convert between different units of measure [for example, kilometre to metre; hour to minute]. Read, write and convert time between analogue and digital 12- and 24-hour clocks solve problems. involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. Solve problems involving converting between units of time.	**Mass, Volume, Length** **Position and Movement** Pupils Can: Convert between different units of measure [for example, kilometre to metre; hour to minute. Estimate, compare and calculate different measures. *Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.* Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon. *Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.*

in mental calculations Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. *Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.* *Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers* *Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.* *Multiply and divide numbers mentally drawing upon known facts.* *Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.* *Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).* *Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.* *Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.* *Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.*	**Fractions / Decimals /** *Percentages* **Geometry - Shape** Pupils Can: Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. Add and subtract fractions of age appropriate range. Recognise and write decimal equivalents in age appropriate range. Recognise and write decimal equivalents in age appropriate range. 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 within age appropriate range to the nearest whole number. Compare numbers with the same number of decimal places up to two decimal places. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 5 2 + 5 4 = 5 6 = 1 5 1]. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams within age appropriate range. Read, write, order and compare numbers within age appropriate decimal range. Solve problems which require knowing percentage and decimal equivalents of 2 1 , 4 1 , 5 1 , 5 2 , 5 4 and those fractions with a denominator of a multiple of 10 or 25. *Solve problems involving number up to three decimal*	**Area and Perimeter** **Roman Numerals** Pupils Can: Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. *Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.* *Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes.* Find the area of rectilinear shapes by counting squares. Read Roman numerals to 100 (I to C) / (M) and know that over time, the numeral system changed to include the concept of zero and place value. *Recognise years written in Roman numerals.*

		places. *Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.* Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. Identify acute and obtuse angles and compare and order angles up to two right angles by size. *Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.* *Draw given angles, and measure them in degrees.* *Identify angles at a point.* *Use the properties of rectangles to deduce related facts and find missing lengths and angles.* *Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.*	
Y6	*Year 6 are following the requirements of the national curriculum in an order that is most appropriate for the pupils.* **Number and Place Value** **Addition, Subtraction, Multiplication and Division** **Fractions / Decimals / Percentages** **Ratio and Proportion** **Algebra** **Measurement** **Geometry** **Statistics**		

Pupils Can:

Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

Round any whole number to a required degree of accuracy.

Use negative numbers in context, and calculate intervals across zero.

Solve number and practical problems that involve all of the above.

Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.

Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.

Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.

Perform mental calculations, including with mixed operations and large numbers.

Identify common factors, common multiples and prime numbers.

Use their knowledge of the order of operations to carry out calculations involving the four operations.

Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Solve problems involving addition, subtraction, multiplication and division.

Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.

Compare and order fractions, including fractions > 1.

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.

Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 4 1 × 2 1 = 8 1].

Divide proper fractions by whole numbers [for example, 3 1 ÷ 2 = 6 1].

Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 8 3]

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.

Multiply one-digit numbers with up to two decimal places by whole numbers.

Use written division methods in cases where the answer has up to two decimal places.

Solve problems which require answers to be rounded to specified degrees of accuracy.

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.

Solve problems involving similar shapes where the scale factor is known or can be found.

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Use simple formulae.

Generate and describe linear number sequence.

Express missing number problems algebraically.

Find pairs of numbers that satisfy an equation with two unknowns.

Enumerate possibilities of combinations of two variables.

Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal place.

Convert between miles and kilometres.

Recognise that shapes with the same areas can have different perimeters and vice versa.

Recognise when it is possible to use formulae for area and volume of shapes.

Calculate the area of parallelograms and triangles.

Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and Extending to other units [for example, mm3 and km3].

Draw 2-D shapes using given dimensions and angles.

Recognise, describe and build simple 3-D shapes, including making nets.

Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.

Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.

Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Describe positions on the full coordinate grid (all four quadrants).

Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.] interpret and construct pie charts and line graphs and use these to solve problems.

Calculate and interpret the mean as an average.