Maths Overview

	Autumn	Spring	Summer
1	⇒ Numbers to 10 ⇒ Part Whole within 10 ⇒ Addition and subtraction within 10 ⇒ 2D and 3D shapes ⇒ Numbers to 20	⇒ Addition within 20 ⇒ Subtraction within 20 ⇒ Numbers to 50 ⇒ Introducing length and height ⇒ Introducing weight and volume	⇒ Multiplication ⇒ Division ⇒ Halves and Quarters ⇒ Position and direction Numbers to 100 ⇒ Time ⇒ Money
2	⇒ Numbers to 100 ⇒ Addition and Subtraction 1 ⇒ Addition and Subtraction 2 ⇒ Money ⇒ Multiplication and Division	⇒ Multiplication and Division ⇒ Statistics ⇒ Length and Height ⇒ Properties of Shapes Fractions	⇒ Position and Direction ⇒ Problem solving and efficient methods ⇒ Time ⇒ Weight, volume and temperature
3	⇒ Place Value within 1,000 ⇒ Addition and Subtraction ⇒ Multiplication and Division	⇒ Multiplication and Division ⇒ Money ⇒ Statistics Length ⇒ Fractions	⇒ Fractions ⇒ Time ⇒ Angels and Properties of Shapes Mass Capacity

Maths Overview

	Autumn	Spring	Summer
4	⇒ Number and place value ⇒ Addition and subtraction ⇒ Properties of shapes ⇒ Multiplication and division ⇒ Measurement- conversions cm-m-km Algebra	⇒ Measurement- area, perimeter, time ⇒ Fractions and Decimals- add, subtract, compare, tenths, hundredths, rounding, converting, equivalent, number problems	⇒ Measurement- Money, capacity ⇒ Position, direction and movement including angles Statistics ⇒ Properties of shapes
5	⇒ Place value within 100,000 ⇒ Place value within 1,000,000 ⇒ Addition and subtraction ⇒ Graphs and tables ⇒ Multiplication and division (1) ⇒ Measure - area and perimeter	⇒ Multiplication and division (2) ⇒ Fractions (1) ⇒ Fractions (2) ⇒ Fractions (3) ⇒ Decimals and percentages	⇒ Decimals ⇒ Geometry - properties of shapes (1) ⇒ Geometry - properties of shapes (2) ⇒ Geometry - position and direction ⇒ Measure - converting units ⇒ Measure - volume and capacity
6	⇒ Place Value within 10,000,000 ⇒ Four operations ⇒ Fractions ⇒ Geometry – position and direction	⇒ SATS Revision ⇒ Decimals ⇒ Percentages ⇒ Measure – imperial and metric ⇒ Measure – perimeter, area and volume Ratio and proportion	⇒ Geometry – properties of shapes ⇒ Problem solving ⇒ Statistics

Year 1 Milestones

Autumn

Numbers to 10

- ⇒ Sort and count objects to 10
- ⇒ Count and write to 10
- ⇒ Count backwards from 10 to 0
- ⇒ Count one more and one less
- ⇒ Compare and order numbers
- ⇒ Learn to use a number line

Part-whole within 10

- ⇒ Use the part-whole model
- ⇒ Write number sentences
- ⇒ Find different ways to make a number
- ⇒ Make number bonds
- ⇒ Compare number bonds

Addition and subtraction within 10

- ⇒ Add parts to find the whole
- ⇒ Find a missing part
- ⇒ Practise using number bonds
- ⇒ Find fact families
- ⇒ Solve word problems

Addition and subtraction within 10 (2)

- ⇒ Take away to find how many are left
- ⇒ Subtract by breaking the whole into parts
- ⇒ Discover related number facts
- ⇒ Comparing additions and subtractions
- ⇒ Find the difference
- ⇒ Solve word problems

2D and 3D shapes

- ⇒ Name 3D shapes
- ⇒ Name 2D shapes
- ⇒ Make patterns with shapes

Numbers to 20

- ⇒ Count using tens and ones
- ⇒ Count one more and one less
- ⇒ Compare numbers of objects
- ⇒ Compare and order numbers

Spring

Addition within 20

- ⇒ Add by counting on
- ⇒ Practise adding ones to help with adding numbers to 20
- ⇒ Use number bonds to 10 to help us with numbers bonds to 20
- ⇒ Solve word problems

Subtraction within 20

- ⇒ Subtract tens and ones
- ⇒ Learn how to cross a 10 when subtracting
- ⇒ Compare additions and subtractions
- ⇒ Solve word and picture problems

Numbers to 50

- ⇒ Count up to 50
- ⇒ Compare numbers to 50
- ⇒ Order numbers
- ⇒ Count in 2s and 5s
- ⇒ Solve word and picture problems

Introducing length and height

- ⇒ Compare lengths and heights of objects
- ⇒ Use non-standard units to measure objects
- ⇒ Measure with a ruler
- ⇒ Solve word problems about length

Introducing weight and volume

- ⇒ Compare the weight of objects
- ⇒ Weigh objects
- ⇒ Compare the capacity of objects
- ⇒ Measure capacity
- ⇒ Solve word problems about weight and capacity

Summer

Multiplication

- ⇒ Count in 10s, 5s and 2s
- ⇒ Make and add equal groups
- ⇒ Make arrays
- ⇒ Make doubles
- ⇒ Solve word problems

Division

- ⇒ Make equal groups
- ⇒ Share amounts equally
- ⇒ Solve word problems

Halves and quarters

- ⇒ Find half of a shape or object
- ⇒ Share equally
- ⇒ Find a quarter of a shape or object
- ⇒ Solve word problems about halves and quarters

Position and direction

- ⇒ Describe turns
- ⇒ Use the words left and right
- ⇒ Say if something is at the top, middle or bottom

Numbers to 100

- ⇒ Count in tens
- ⇒ Learn how to use a 100 square
- ⇒ Use tens and ones to make larger numbers
- ⇒ Say which number is larger and smaller
- ⇒ Find numbers which add to 100

Time

- ⇒ Say if things happen before or after
- ⇒ Use a calendar
- ⇒ Tell time to the hour and the half hour
- ⇒ Compare time
- ⇒ Solve time word problems

Money

- ⇒ Learn about coins
- ⇒ Learn about notes
- ⇒ Count in 1s, 2s, 5s and 10s using coins

Year 2 Milestones

Autumn

Numbers to 100

- ⇒ Count numbers to 100
- ⇒ Use different ways to show numbers to 100
- ⇒ Use place value grids to make and compare numbers
- ⇒ Count in 10s
- ⇒ Compare and order numbers to 100
- ⇒ Count in 2s and 5s

Addition and subtraction

- ⇒ Use related number facts
- ⇒ Compare number sentences
- ⇒ Make number bonds to 100
- ⇒ Add and subtract ones and tens
- ⇒ Add a 2-digit and a 1-digit number
- ⇒ Subtract a 1-digit number from a 2-digit number

Addition and subtraction (2)

- ⇒ Add two 2-digit numbers
- ⇒ Subtract 2-digit numbers
- ⇒ Add three 1-digit numbers
- ⇒ Solve word problems

Money

- ⇒ Count coins and notes
- ⇒ Compare different amounts of money
- ⇒ Find different ways to make the same amount
- ⇒ Work out the amount of change
- ⇒ Solve two-step problems involving money

Multiplication and division

- ⇒ Decide if groups are equal
- ⇒ Form multiplication sentences
- ⇒ Use arrays
- ⇒ Practise the 2, 5 and 10 times-tables
- ⇒ Solve multiplication word problems

Spring

Multiplication and division (2)

- ⇒ Divide by 2
- ⇒ Learn about odd and even numbers
- ⇒ Divide by 5 and 10
- ⇒ Divide by grouping and by sharing
- ⇒ Use related multiplication facts to solve division problems

Statistics

- ⇒ Make tally charts
- ⇒ Use pictograms
- ⇒ Use block diagrams
- ⇒ Solve word problems

Length and height

- ⇒ Measure objects in centimetres and metres
- ⇒ Compare two lengths
- ⇒ Put lengths in order
- ⇒ Solve word problems about length

Properties of shapes

- ⇒ Recognise 2D and 3D shapes
- ⇒ Count the sides and vertices on 2D shapes
- ⇒ Learn about symmetry
- ⇒ Count the faces, edges and vertices on 3D shapes
- ⇒ Sort 2D and 3D shapes

Fractions

- ⇒ Learn about the whole and equal parts
- ⇒ Recognise and find a half
- ⇒ Recognise and find a quarter
- ⇒ Learn about unit fractions
- ⇒ Count in halves and quarters

Summer

Position and direction

- ⇒ Describe movement
- ⇒ Describe turns
- ⇒ Make patterns by turning shapes

Problem solving and efficient methods

- ⇒ Compare ways of calculating
- ⇒ Use mental addition and subtraction
- ⇒ Look for the most efficient way to solve a problem
- ⇒ Use number facts to solve problems
- ⇒ Solve word problems using all four operations

Time

- ⇒ Tell the time to the hour, the half hour and quarter hour
- ⇒ Tell the time to five minutes
- ⇒ Find start and end times
- ⇒ Find out how long something lasts
- ⇒ Compare amounts of time

Weight, volume and temperature

- ⇒ Compare and measure mass
- ⇒ Compare and measure volume
- ⇒ Measure temperature
- ⇒ Read a thermometer

Year 3 Milestones

Autumn

Place Value within 1,000

- ⇒ Count in 100s
- ⇒ Partition a number in 100s, 10s and 1s
- ⇒ Find 100, 10 and 1 more or less
- ⇒ Compare and order numbers up to 1,000
- ⇒ Count in 50s

Addition and subtraction

- ⇒ Add 1s and 10s to 3-digit numbers
- ⇒ Subtract 1s and 10s from 3-digit numbers
- ⇒ Add and subtract 3-digit and 2-digit numbers
- ⇒ Learn when to exchange 1s, 10s and 100s
- ⇒ Add and subtract using mental and written methods

Addition and subtraction (2)

- ⇒ Add and subtract 3-digit numbers
- ⇒ Decide if we need to exchange
- ⇒ Exchange across more than one column
- ⇒ Learn how to check our answers in different ways
- ⇒ Use bar models to solve 1- and 2-step problems

Multiplication and division

- ⇒ Recognise when groups are equal and when they are not
- ⇒ Learn the 3, 4 and 8 times-tables
- ⇒ Find a simple remainder when a number is divided
- ⇒ Use a bar model to solve multiplication and division problems

Spring

Multiplication and division (2)

- ⇒ Compare multiplication and division statements using inequality signs
- ⇒ Use known multiplication facts to solve other multiplication problems
- ⇒ Find multiplication and division fact families
- ⇒ Learn to multiply and divide by partitioning
- ⇒ Solve mixed multiplication and division problems including multi-step problems

Money

- ⇒ Record money in £ and p
- ⇒ Convert money
- ⇒ Add and subtract amounts of money
- ⇒ Solve problems including ones that involve finding change

Statistics

- ⇒ Present information in different ways
- ⇒ Use pictograms, bar charts and tables
- ⇒ Answer questions based on information that is presented in different ways

Length

- ⇒ Measure lengths in millimetres, centimetres and metres
- ⇒ Compare lengths
- ⇒ Add and subtract lengths
- ⇒ Measure the perimeter of a shape
- ⇒ Learn about equivalent lengths

Fractions

- ⇒ Make a whole with unit and non-unit fractions
- ⇒ Explore tenths as fractions
- ⇒ Understand fractions as numbers
- ⇒ Calculate fractions of a set of objects

Summer

Fractions (2)

- ⇒ Find equivalent fractions
- ⇒ Compare fractions
- ⇒ Add and subtract fractions
- ⇒ Solve word problems about fractions and finding fractions of an amount

Time

- ⇒ Learn about hours, days, months and years
- ⇒ Estimate times
- ⇒ Tell the time to the nearest minute
- ⇒ Calculate start and end times
- ⇒ Solve time problems

Angles and properties of shape

- ⇒ Learn about turns
- ⇒ Learn what a right angle is
- ⇒ Understand and draw parallel and perpendicular lines
- ⇒ Identify and draw vertical and horizontal lines
- ⇒ Recognise and describe right angles and parallel and perpendicular lines in 2D shapes
- ⇒ Recognise, describe and construct 3D shapes

Mass

- ⇒ Measure mass in kilograms and grams
- ⇒ Work out different intervals on a scale
- ⇒ Add, subtract and compare masses
- ⇒ Solve problems involving mass

Capacity

- ⇒ Measure capacity in litres and millilitres
- ⇒ Convert between litres and millilitres
- ⇒ Compare and order capacities
- ⇒ Add and subtract capacities
- ⇒ Solve problems involving capacities

Year 4 Milestones

Autumn

Place Value—4 digit numbers

- ⇒ Round numbers to the nearest 10 or 100 Count in 1,000s
- ⇒ Represent 4-digit numbers
- ⇒ Use number lines
- ⇒ Learn about Roman numerals

Place Value—4 digit numbers (2)

- ⇒ Find 1,000 more or less
- ⇒ Compare and order numbers to 10,000
- ⇒ Round numbers to the nearest 1,000
- ⇒ Count in 25s
- ⇒ Count back through 0 into negative numbers

Addition and subtraction

- ⇒ Add and subtract 1s, 10s, 100s and 1,000s
- ⇒ Add and subtract two 4-digit numbers using the column method
- ⇒ Learn how to find and use equivalent difference, and other mental methods
- ⇒ Estimate answers to additions and subtractions
- ⇒ Learn how to check strategies and apply our knowledge

Measure—perimeter

- ⇒ Convert between kilometres and metres
- ⇒ Find perimeters of shapes
- ⇒ Work out missing lengths
- ⇒ Find solutions involving perimeter

Multiplication and division

- ⇒ Multiply by and divide multiples of 10 and 100
- ⇒ Multiply and divide by 0 and 1
- ⇒ Learn all of our times-tables from 1 to 12
- ⇒ Understand related multiplication and division facts
- ⇒ Find solutions to multiplication and division word problems

Spring

Multiplication and division (2)

- ⇒ Learn how to multiply a number using the written method
- ⇒ Learn how to multiply and divide numbers in our heads
- ⇒ Find the remainder when a number is divided
- ⇒ Use bar models and part-whole models to solve multiplication and division problems

Measure –area

- ⇒ Learn what 'area' means
- ⇒ Find areas of shapes by counting squares
- ⇒ Draw shapes with different areas
- ⇒ Compare the area of different shapes

Fractions

- ⇒ Find the links between tenths and hundredths
- ⇒ Identify equivalent fractions
- ⇒ Simplify fractions
- ⇒ Look at fractions that are greater than 1

Fractions (2)

- ⇒ Learn to add and subtract fractions with the same denominator
- ⇒ Learn to subtract a fraction from a whole number
- ⇒ Understand how to find a fraction of an amount

Decimals

- ⇒ Learn about the decimal point, and tenth and hundredth columns
- ⇒ Explore tenths and hundredths as decimals
- ⇒ Understand how to divide 1- and 2-digit numbers by 10 and 100
- ⇒ Complete calculations resulting in a decimal answer

Summer

Decimals (2)

- ⇒ Work out what we need to make a whole
- ⇒ Write a decimal and represent it on a place value grid
- ⇒ Compare and order decimals
- ⇒ Round decimals to the nearest whole number
- ⇒ Learn the decimal equivalents of fractions such as 1 2 , 1 4 and 3 4
- ⇒ Convert different units of measurement

Money

- ⇒ Write money in pounds and pence, using a decimal point
- ⇒ Order, add and subtract amounts of money
- ⇒ Round money to the nearest 10p or nearest £1
- ⇒ Find change
- ⇒ Solve simple word problems involving money

Time

- ⇒ Convert between units of time
- ⇒ Write times in different ways
- ⇒ Compare times by converting units
- ⇒ Solve problems about units of time

Statistics

- ⇒ Present data in pictograms, bar charts and tables
- ⇒ Explore line graphs
- ⇒ Solve problems based on data

Geometry—angles and 2D shapes

- ⇒ Learn to recognise obtuse, acute and right angles
- ⇒ Understand regular and irregular shapes
- ⇒ Name and describe quadrilaterals and triangles
- ⇒ Identify lines of symmetry in shapes and patterns

Geometry—position and direction

- ⇒ Use numbers to say where things are on a grid
- ⇒ Plot points on a grid
- ⇒ Use our knowledge of shapes to complete diagrams D
- ⇒ escribe movements on a grid

Year 5 Milestones

Autumn

Place Value within 100,000

- ⇒ Find the value of each digit in numbers to 100,000
- ⇒ Partition numbers in different ways
- ⇒ Round numbers
- ⇒ Compare and order numbers
- ⇒ Represent numbers in different ways including Roman numerals

Place Value within 1,000,000

- ⇒ Understand the value of any digit in numbers up to 1,000,000
- ⇒ Compare and order numbers
- ⇒ Round numbers
- ⇒ Use negative numbers
- ⇒ Create number sequences

Addition and subtraction

- ⇒ Add and subtract numbers with up to 5 digits
- ⇒ Use the column method for addition and subtraction
- ⇒ Round numbers to estimate answers to problems
- ⇒ Add and subtract mentally
- ⇒ Solve problems

Graphs and tables

- ⇒ Read information from tables
- ⇒ Understand and create two-way tables
- ⇒ Read information from line graphs
- ⇒ Answer questions relating to the information in graphs and tables
- ⇒ Draw simple line graphs

Multiplication and division

- ⇒ Recognise and find multiples and factors
- ⇒ Recognise and identify prime numbers
- ⇒ Calculate square and cube numbers
- ⇒ Use inverse operations
- ⇒ Multiply and divide by 10, 100 and 1,000
- ⇒ Multiply and divide by multiples of 10, 100 and 1,000

Measure—Area and perimeter

- ⇒ Measure shapes to fi nd their perimeter
- ⇒ Calculate the perimeter of squares, rectangles and other rectilinear shapes
- ⇒ Use a formula to find the area of squares and rectangles
- ⇒ Estimate the area of different

Spring

Multiplication and division (2)

- ⇒ Multiply a number up to 4 digits by a 1- or 2-digit number
- ⇒ Divide a number up to 4 digits by a 1-digit number
- ⇒ Interpret remainders
- ⇒ Solve problems involving multiplication, division and remainders

Fractions (1)

- ⇒ Find and use equivalent fractions
- ⇒ Convert between improper fractions and mixed numbers
- ⇒ Compare and order fractions
- ⇒ Understand fractions as division
- ⇒ Use fractions to show remainders

Fractions (2)

- ⇒ Add and subtract fractions with the same denominator
- ⇒ Add and subtract fractions, including mixed numbers, where one denominator is a multiple of the other
- ⇒ Solve word problems involving fractions

Fractions (3)

- ⇒ Multiply proper fractions and mixed numbers by whole numbers
- ⇒ Find a fraction of an amount
- ⇒ Understand how fractions can be operators
- ⇒ Solve word problems involving fractions

Decimals and percentages

- ⇒ Read and write decimals up to three decimal places, including numbers greater than 1
- ⇒ Round decimals to nearest whole number and to one decimal place
- ⇒ Order and compare decimal numbers up to three decimal places
- ⇒ Write percentages as fractions and as decimals.

Summer

Decimals

- ⇒ Add and subtract decimals with the same number of digits after the decimal point
- ⇒ Add and subtract decimals with a different number of digits after the decimal point
- ⇒ Add whole numbers to decimals
- ⇒ Subtract decimals from whole numbers
- ⇒ Solve problems involving addition and subtraction of decimals including money problems
- ⇒ Multiply and divide decimals and whole numbers by 10, 100 and 1,000

Geometry—Properties of shape

- ⇒ Measure angles in degrees
- ⇒ Learn to measure angles with a protractor
- ⇒ Draw lines and angles accurately
- ⇒ Calculate missing angles
- ⇒ Learn about angles in shapes

Geometry—Properties of shape (2)

- ⇒ Recognise and draw parallel lines
- ⇒ Recognise and draw perpendicular lines
- ⇒ Label parallel and perpendicular lines with the correct notation
- ⇒ Accurately identify regular and irregular polygons
- ⇒ Recognise different 3D shapes from different views

Geometry—Position and direction

- ⇒ Learn to reflect simple 2D shapes in vertical and horizontal lines
- ⇒ Plot and find coordinates of a reflected point on a grid
- ⇒ Use coordinates to calculate new points of a reflected shape
- ⇒ Translate 2D shapes on grid paper
- ⇒ Use coordinates to find translations

Measure—Converting Units

- ⇒ Convert between metric units of length, mass and capacity
- ⇒ Recognise imperial units and understand how to convert them into metric units
- ⇒ Convert between units of time
- ⇒ Read timetables and understand the information they show
- ⇒ Solve problems based on measures

Measure—Volume and Capacity

- ⇒ Learn what the volume of a shape is
- ⇒ Find volumes of shapes by counting unit cubes
- ⇒ Draw shapes with different volumes
- ⇒ Compare the volume of different shapes
- ⇒ Estimate the capacity of different shapes

Year 6 Milestones

Autumn

Place value within 10,000,000

- ⇒ Learn to read and write numbers to 10,000,000
- ⇒ Partition, compare and order numbers up to 10,000,000
- ⇒ Round numbers
- ⇒ Work with negative numbers

Four operations

- ⇒ Use written methods for addition and subtraction
- ⇒ Learn to use column multiplication
- ⇒ Learn different written methods for division
- ⇒ Learn checking strategies for our calculations

Four operations (2)

- ⇒ Find common factors and multiples
- ⇒ Learn about prime, square and cube numbers
- ⇒ Learn about the order of operations
- ⇒ Solve mental calculations

Fractions (1)

- ⇒ Simplify fractions
- ⇒ Compare and order fractions
- ⇒ Add and subtract fractions including mixed numbers
- ⇒ Solve problems involving adding and subtracting fractions

Fractions (2)

- ⇒ Multiply any fraction by a whole number or another fraction
- ⇒ Divide a fraction by a whole number
- ⇒ Solve problems involving all four operations with fractions
- ⇒ Solve problems involving a fraction of an amount

Geometry—Position and direction

- ⇒ Look at how we can use coordinates to describe the position of a point on a grid
- ⇒ Look at how coordinates can have positive or negative values
- ⇒ Explore how we can use our knowledge of properties of shape to help us solve problems on a coordinate grid
- ⇒ Explore how we can move and change shapes on a coordinate grid, through translations and reflections

Spring

Decimals

- ⇒ Recognise the value of each digit in a decimal number
- ⇒ Multiply and divide decimals by 10, 100 and 1,000
- ⇒ Convert between fractions and decimals
- ⇒ Multiply and divide decimals by single digit numbers

Percentages

- ⇒ Develop a deeper understanding of percentages as parts of 100
- ⇒ Understand a range of methods to work out percentages
- ⇒ Find 1% and multiples of 1%
- ⇒ Work out missing values, such as 30% of ? = 60
- ⇒ Convert, order and solve problems involving fractions, percentages and decimals

Algebra

- ⇒ Find and write algebraic rules
- ⇒ Write algebraic expressions
- ⇒ Write algebraic formulae
- ⇒ Write and solve algebraic equations
- ⇒ Solve equations that have lots of solutions

Measure—Imperial and metric units

- ⇒ Choose the most appropriate metric units of measurement to measure different things
- ⇒ Convert between metric units, between imperial units and from one to the other
- ⇒ Solve problems involving metric units
- ⇒ Recognise the difference between metric and imperial units of measurement and what they are worth

Measure—Perimeter, area, volume

- ⇒ Find and draw shapes with the same area or perimeter
- ⇒ Explore how the perimeter changes when the area changes and vice versa
- ⇒ Calculate the area of parallelograms and triangles
- ⇒ Calculate and estimate the volume of cubes and cuboids

Ratio and proportion

- ⇒ Calculate ratios
- ⇒ Use ratios to work out amounts
- ⇒ Enlarge shapes by a scale factor
- ⇒ Identify similar shapes
- ⇒ Solve problems involving ratio

Summer

Geometry—Properties of shape

- ⇒ Measure angles and draw shapes accurately using a ruler and protractor
- ⇒ Calculate unknown angles in shapes and on lines using angle facts
- ⇒ Explore properties of polygons and circles
- ⇒ Identify 3D shapes from 2D representations
- ⇒ Draw multiple nets for a 3D shape

Problem solving

- ⇒ Solve problems about number, including fractions and ratio
- ⇒ Use representations to help make sense of problems
- ⇒ Use the four operations flexibly
- ⇒ Reason about problems with a context and without a context
- ⇒ Apply understanding of measurement and geometry to solve problems

Statistics

- ⇒ Learn to calculate the mean of a set of data
- ⇒ Use the mean to find missing data
- ⇒ Read and interpret pie charts using fractions
- ⇒ Read and interpret pie charts using percentages
- ⇒ Interpret and create line graphs