



St Mary's Catholic Primary School

Maths Curriculum Map (White Rose)



Term	Autumn Weeks 1 - 12	Spring Weeks 13 - 24	Summer Weeks 25 - 36
Nursery	Comparison 1 - More than, Fewer than, same - Explore and compare quantities using concrete objects and real-life contexts. - Recognise and describe large and small amounts through practical investigation. - Make, represent and compare collections of objects. - Compare quantities using mathematical language such as more, less and equal. - Develop early understanding of comparison and estimation of amounts. Shape, Space and Measure 1 - Explore, manipulate and talk about shapes in the environment and through practical play. - Recognise, describe and compare simple 2D and 3D shapes and objects. - Select and use shapes purposefully for a reason or design. - Begin to notice similarities and differences between shapes and objects. - Develop spatial awareness by positioning and arranging shapes and blocks. Pattern 1 Explore repeating patterns - Listen to, recognise and join in with repeated patterns in songs, stories and rhymes. - Clap, move and respond in time with simple musical patterns and rhythms. - Create and continue simple repeating patterns in different contexts (e.g. sounds, actions, objects). - Explore and describe patterns through play and everyday experiences. Counting 1 - Recognise, say and sequence number names. - Count forwards in a stable order, joining in with oral counting. - Develop fluency and accuracy in verbal counting through regular practice. - Build early number awareness through songs, rhymes and counting experiences. Counting 2 Begin to order number names - Recognise, say and use number names 1, 2 and 3 in play and everyday contexts. - Copy and represent small quantities using fingers and objects. - Begin to count actions, objects and sounds in practical activities. - Understand that anything can be counted, developing early counting awareness. - Join in with simple counting sequences and number rhymes. Subitising 1 - Recognise and respond to small quantities up to 3 in images, stories and play. - Say and copy number language for 1, 2 and 3 in context. - Begin to match spoken number names with quantities and images. - Point to and identify small sets of objects up to 3. - Develop early number awareness through shared books, songs and play-based activities. Pattern 2 - Join in with repeated actions, phrases and refrains in songs and stories. - Begin to anticipate and say what happens next in familiar stories and routines. - Develop awareness of patterns and sequences through daily routines and shared experiences. - Build confidence in participating in songs, rhymes and storytelling activities. Shape Space and Measure 2 - Explore, recognise and describe shapes and objects in the environment. - Recognise and match simple shapes, including identifying when objects are the same shape. - Respond to and use simple positional language in play and practical activities. - Arrange and position objects and blocks in purposeful ways. - Develop early spatial awareness through hands-on exploration and construction activities.	Subitising 2 - Represent and recognise numbers 1, 2 and 3 using fingers and visual models. - Match quantities to numerals in stories and play (up to 3). - Show understanding of small quantities by selecting the correct number of fingers. - Begin to connect number words, objects and representations in practical contexts. - Develop early number sense through visual, spoken and physical representations. Counting 3 - Join in with counting words through actions, movement and play. - Count and represent small sets of objects (up to 3) from rhymes and songs. - Recognise that numbers can be used as labels for quantities (e.g. 1 and not 1). - Begin to associate number symbols with quantities in practical contexts. - Develop early counting skills through active, hands-on experiences. Shape, Space and Measure 3 - Explore and manipulate shape resources, including jigsaws and construction materials. - Develop spatial awareness by moving through and into different positions. - Respond to and use simple positional language in play and practical activities. - Recognise and compare simple shapes through hands-on exploration. - Build problem-solving skills through shape-based activities and puzzles. Pattern 3 - Explore, create and copy simple patterns using objects and blocks. - Make purposeful constructions such as roads and bridges using a range of resources. - Recognise, describe and continue simple repeating arrangements. - Develop early pattern awareness through hands-on play and construction activities. Counting 4 - Select and work with small groups of objects in practical activities. - Understand and represent small quantities (up to 3) through sharing and grouping. - Take from and give to others using small numbers of objects. - Develop early understanding of counting, sharing and one-to-one correspondence. - Explore quantities through practical play and real-life contexts. Shape, Space and Measure 4 - Explore and manipulate shapes and blocks to create simple arrangements. - Recognise, match and combine simple shapes in play-based activities. - Develop spatial awareness by following and creating simple routes in indoor and outdoor environments. - Talk about and describe arrangements using everyday language. - Compare and explore collections of objects, noticing differences in quantity. Subitising 3 - Recognise and respond to small quantities (1, 2 and 3) in different arrangements, including dot patterns. - Subitise simple patterns and say how many without counting (up to 3). - Match number words to quantities in practical and visual contexts. - Develop early number recognition through structured patterns and play. Comparison 2 - Recognise and compare equal and unequal collections. - Make and match equal groups using a range of objects. - Adjust collections to make them equal. - Develop understanding of equality through practical exploration and play-based activities.	Pattern 4 - Join in with and perform sequences, songs, rhymes and familiar stories. - Develop confidence in leading and participating in repeated patterns in music and storytelling. - Copy and create simple repeating patterns, including in art and creative activities. - Recognise and engage with patterns in songs, rhymes and stories. - Build independence in recalling and continuing familiar sequences. Shape, Space and Measure 5 - Explore and match objects, pictures and shapes through practical and puzzle-based activities. - Complete simple jigsaws and shape-matching puzzles. - Develop spatial awareness through small world play, including creating routes with lines and curves. - Recognise objects from different viewpoints, including matching to shadows and images. - Develop problem-solving skills through hands-on exploration of shape and space. Pattern 5 - Develop musicality through singing independently and joining in with songs and rhymes. - Explore and create movement patterns in response to music and rhythm. - Copy, continue and talk about simple repeating patterns, including AB patterns with support. - Recognise and describe patterns and arrangements using objects and actions. - Develop rhythmic awareness by clapping and moving in time to a steady beat. Subitising 4 - Develop early subitising skills by recognising small quantities in dot patterns and games. - Match, copy and represent simple quantities using objects, fingers and visual patterns. - Listen to and represent sounds, linking actions and fingers to quantities. - Begin to recognise and compare small groups of objects through play-based activities. Counting 5 - Count up to 5 objects with increasing accuracy, using one-to-one correspondence. - Represent numbers to 5 using fingers, objects and actions. - Match numerals to quantities in songs, rhymes and practical contexts. - Join in with counting songs to 5, including moving props and acting out sequences. - Develop early number awareness through rhythmic, movement-based counting activities. Pattern 6 - Recognise, continue and create simple repeating AB patterns. - Notice and correct errors in patterns. - Copy and build simple repeated constructions using a range of resources. - Develop understanding of pattern through hands-on exploration and creative building. Counting 6 - Count reliably up to 5 objects, including selecting and counting from larger groups. - Develop accurate verbal counting to 5 in a range of contexts. - Represent numbers to 5 using fingers, objects and other representations. - Begin to match quantities to numerals through practical activities. - Explore counting in different ways to build early number understanding. Comparison 3

			- Compare and match objects by type and simple attributes. - Make and recognise equal sets through one-to-one matching. - Compare groups of up to 5 objects using matching strategies. - Develop early classification skills by sorting and grouping objects. - Begin to describe similarities and differences between objects in practical contexts.
Reception	Getting to know you Match, sort and compare - Recognise and match pictures and objects, identifying similarities and differences - Sort objects into sets using given and self-created sorting rules - Describe and create simple criteria for grouping and sorting - Compare quantities and use mathematical language to describe more, fewer and equal amounts Talk about measure and patterns - Compare and describe size, mass and capacity using appropriate mathematical language - Explore, copy and continue simple repeating patterns using objects, shapes and numbers - Identify patterns in everyday contexts and describe what comes next It’s me 1,2,3 - Subitise, find and represent numbers 1, 2 and 3 in different ways - Understand the composition of numbers 1, 2 and 3 as parts and wholes - Identify 1 more and 1 less within numbers up to 3 - Develop early number sense through counting, recognition and comparison of small numbers Circles and Triangles - Identify, name and compare common 2D shapes, including circles and triangles - Recognise and describe shapes in the environment - Describe the position of shapes using appropriate positional language - Use mathematical vocabulary to compare and talk about basic shape properties 1,2,3,4,5 - Subitise, find and represent numbers 4 and 5 in different ways - Understand the composition of numbers 1–5 using parts and wholes - Identify 1 more and 1 less within numbers up to 5 - Develop fluency with counting, comparing and representing small numbers Shapes with 4 sides - Identify and name common 2D shapes with four sides (quadrilaterals) - Combine and manipulate shapes to create new composite shapes - Recognise and describe shapes with four sides in the environment - Use mathematical vocabulary to describe properties of 2D shapes	Alive in 5 - Introduce and understand the concept of zero as ‘none’ or ‘nothing’ - Subitise, find and represent numbers 0–5 in different ways - Identify 1 more and 1 less within numbers 0–5 - Develop early number sense through counting, recognition and comparison of small numbers Mass and Capacity - Compare mass using practical resources and mathematical language (heavier/lighter, equal) - Use balance scales to compare and check mass - Explore and compare capacity using containers and everyday objects - Develop early understanding of measurement through practical investigation and comparison Growing 6,7,8 - Find, represent and subitise numbers 6, 7 and 8 in different ways - Identify 1 more and 1 less within numbers up to 8 - Explore the composition of numbers 6, 7 and 8 using parts and wholes - Recognise odd and even numbers through making pairs - Find and make doubles up to 8 to support early number fluency Length, height and time - Explore, compare and order length and height using appropriate vocabulary and practical measurement - Use standard and non-standard units to measure and compare length and height - Sequence and order events in time using everyday language and time vocabulary - Develop understanding of time by ordering events and recognising simple time sequences Building 9 and 10 - Subitise, find and represent numbers up to 10 in different ways - Compare numbers within 10 using mathematical language - Identify 1 more and 1 less within 10 - Develop number bonds to 10 and use them to support mental calculation - Find and make doubles within 10 - Recognise odd and even numbers and begin to explain patterns - Build fluency with counting, composition and representation of numbers to 10 Explore 3-D shapes - Recognise, name and describe common 3D shapes - Identify and describe 2D shapes within 3D shapes - Use 3D shapes in practical tasks and investigations - Recognise 3D shapes in the environment - Identify, copy and continue simple repeating patterns using shapes and objects	To 20 and beyond - Build, represent and understand numbers beyond 10, including 10–13 and 14–20 - Develop secure verbal counting beyond 20 - Identify, continue and create patterns using numbers beyond 10 - Strengthen number sense through composition, sequencing and pattern recognition within and beyond 20 How many now? - Understand addition as combining and adding more to a set - Identify and describe how many have been added in a calculation - Understand subtraction as taking away from a set - Identify and describe how many have been taken away - Use practical and pictorial representations to support addition and subtraction within simple contexts Manipulate, compose and decompose - Select and use shapes for specific purposes in practical contexts - Rotate and manipulate 2D and 3D shapes to explore their properties - Compose and decompose shapes to form new shapes and patterns - Copy and recreate 2D shape pictures using accurate positioning - Identify 2D shapes within 3D shapes and in the environment Sharing and grouping - Explore sharing and grouping quantities into equal parts - Understand even and odd numbers through practical sharing activities - Recognise and use doubling as a way of building number fluency - Use objects, pictures and practical resources to support early division and multiplication concepts Visualise, build and map - Identify, create and continue repeating patterns using units, objects, scenes and constructions - Replicate, build and represent 2D and 3D models from different viewpoints - Visualise, describe and build shapes and structures using positional language - Use maps, models and familiar places to represent simple locations and routes - Create and interpret simple maps from familiar environments Make connections Deepen Understanding Patterns and relationships.
Year 1	Place value (within 10) - Count, recognise and represent numbers in different forms, including numerals and number words - Count forwards and backwards, including from any given number, within 10 - Understand and use number relationships, including one more/less, fewer/more/same and greater than/less than - Compare and order numbers and objects using appropriate mathematical language - Use number lines to support counting, comparison and ordering of numbers Addition and Subtraction (within 10) - Understand the part–whole model to represent numbers and relationships - Use and write number sentences to represent addition and subtraction - Develop fluency with addition and subtraction facts, including fact families and number bonds within 10 - Add and subtract quantities using practical, visual and number line strategies - Solve problems involving finding parts of a whole and “how many left?” contexts - Add and subtract 1 or 2, using counting on and back strategies Geometry (Shape) - Recognise, name and describe common 2D and 3D shapes	Place Value (Within 20) - Count, read and represent numbers within 20 - Understand the composition of numbers 10–20 - Use and interpret number lines to 20, including estimating positions - Compare and order numbers to 20 using mathematical language and symbols - Develop number sense through estimation, counting and reasoning within 20 Addition and Subtraction (within 20) - Use number bonds within 20 to support addition and subtraction - Add and subtract within 20 using counting on, counting back and number bonds - Understand and apply doubles and near doubles to support mental calculation - Find number bonds to 20 and use them to solve missing number problems - Subtract by finding the difference and using part–whole relationships - Solve addition and subtraction problems, including missing number equations Place value (within 50) - Count, read and represent numbers from 20 to 50, including counting in tens (20, 30, 40, 50) - Understand and use groups of tens and ones, including partitioning numbers into tens and ones	Multiplication and Division - Count in steps of 2, 5 and 10 and recognise patterns in number sequences - Recognise and represent equal groups using objects, arrays and pictorial models - Understand multiplication as repeated addition and use it to add equal groups - Understand division as sharing and grouping into equal parts - Use doubles and arrays to support fluency with equal groups and early multiplication facts Fractions - Recognise and find halves and quarters of objects, shapes and quantities - Understand halves and quarters as equal parts of a whole - Use practical and pictorial representations to identify and show fractions - Apply knowledge of fractions to solve simple problems involving sharing and division Position and Direction - Describe and understand position and direction using left/right, forwards/backwards and above/below - Describe and follow turns and movements using appropriate directional language - Use ordinal numbers to describe position and order

	- Sort and classify shapes using simple properties (e.g. sides, corners, faces) - Create and continue patterns using 2D and 3D shapes - Use mathematical language to compare and describe shape properties	- Use number lines to 50 to represent, compare and estimate numbers - Identify 1 more and 1 less than a given number within 50 - Solve missing number problems using number knowledge, patterns and place value understanding Length and Height - Compare and order lengths and heights using appropriate mathematical language - Measure length using non-standard and standard units - Measure accurately in centimetres using rulers and practical equipment - Apply measurement skills to describe, compare and solve simple length problems Mass and Volume - Compare and describe mass using language such as heavier and lighter - Measure and compare mass using simple and standard units - Understand and compare volume and capacity, including full and empty - Measure and compare capacity using practical equipment and appropriate units - Apply measurement skills to solve simple real-life problems involving mass and capacity	- Apply positional language to describe and follow routes and instructions Place Value (within 100) - Count, read and represent numbers from 50 to 100, including counting in tens - Understand and use place value to partition numbers into tens and ones - Use number lines to 100 to represent, estimate, compare and order numbers - Identify 1 more and 1 less than any given number within 100 - Compare numbers using place value knowledge, including numbers with the same number of tens - Use mathematical language and symbols to compare any two numbers accurately Money - Recognise and understand the value of coins and notes in UK currency - Count in coins and combine values to find totals - Use unitising to understand money as units of value - Apply knowledge of money to simple real-life counting and comparison problems Time - Understand and use vocabulary related to time, including before and after - Name and sequence days of the week and months of the year - Understand and use units of time (hours, minutes and seconds) - Tell the time to the hour and half past the hour using analogue clocks - Apply time language and sequencing to daily events and routines
Year 2	Place value Count, read and write numbers to 100 in numerals and words. Understand place value in two-digit numbers, recognising and representing tens and ones in different ways. Partition and recombine numbers to 100, including using flexible partitioning and expanded form. Represent and estimate numbers using number lines and place value charts. Compare, order and count numbers, including counting in steps of 2, 3, 5 and 10. Addition and Subtraction Recall and use number bonds and related addition and subtraction facts within 20 and to 100 (tens). Add and subtract one- and two-digit numbers using a range of mental and written strategies, including bridging through 10. Find 10 more or 10 less than a number and add or subtract multiples of 10. Use inverse operations and fact families to solve and check calculations. Compare, represent and solve addition and subtraction problems, including missing number and number sentence problems. Shape Recognise, name and draw 2-D and 3-D shapes. Identify and describe the properties of 2-D and 3-D shapes, including sides, faces, edges and vertices. Recognise and use lines of symmetry, including completing symmetrical shapes. Sort and classify 2-D and 3-D shapes according to their properties. Create, continue and describe patterns using 2-D and 3-D shapes.	Money - Count and recognise money in pence, pounds, and pounds and pence - Identify and choose appropriate notes and coins to represent amounts - Make equivalent amounts of money using different combinations of coins and notes - Compare, order and calculate with money in real-life contexts - Understand how to make a pound and find change using addition and subtraction skills Multiplication and Division Understand multiplication and division through equal groups, sharing and grouping. Represent and solve multiplication and division calculations using symbols, number sentences and arrays. Recall and apply multiplication and division facts for the 2, 5 and 10 times tables. Explore doubling, halving, and odd and even numbers in relation to multiplication and division. Length and height Measure and record lengths and heights using standard units, including centimetres and metres. Compare and order lengths and heights using appropriate mathematical vocabulary. Solve problems involving lengths and heights using the four operations. Mass Capacity and Temperature Measure and record mass using grams and kilograms. Measure and record volume and capacity using millilitres and litres. Compare mass, volume and capacity using appropriate mathematical vocabulary. Solve problems involving mass, volume and capacity using the four operations.	Fractions Understand fractions as equal parts of a whole and identify equal and unequal parts. Recognise, name and find fractions including halves, quarters and thirds of shapes, objects and quantities. Recognise and use unit fractions and non-unit fractions, including finding the whole from a fraction. Explore fraction equivalence and count in fractions up to one whole. Time Tell and write the time to the hour, half hour, quarter hour and 5-minute intervals on an analogue clock. Use the language of time, including past and to, when reading and describing times. Understand relationships between units of time, including minutes in an hour and hours in a day. Statistics Collect, organise and record data using tally charts and tables. Represent data using block diagrams and pictograms. Interpret and compare information presented in tables, block diagrams and pictograms. Position and Direction Use positional and directional language to describe position, movement and turns. Recognise and describe turns, including in different directions and amounts of rotation. Create and continue shape patterns involving movement and turns.
Year 3	Place Value Represent and understand numbers to 1,000, including identifying hundreds, tens and ones and recognising the value of each digit Partition numbers in different ways, including standard and flexible partitioning using place value knowledge Use number lines effectively, including placing, estimating and interpreting numbers up to 1,000 Compare, order and reason about numbers, using place value to explain and justify their thinking Develop number sense through patterns and operations, including finding 1, 10 and 100 more or less and counting in steps of 50 Addition and Subtraction - Apply number bonds within 10 - Add and subtract 1s, 10s and 100s using place value understanding - Add and subtract across boundaries (crossing 10 and 100) including bridging through tens and hundreds - Identify and use patterns in addition and subtraction to support fluency and reasoning - Subtract 10s across 100 and make connections between place value patterns	Multiplication and Division B Multiply and divide by multiples of 10 and use related calculations to support fluency Reason about multiplication and division, recognising and using inverse relationships Multiply 2-digit numbers by 1-digit numbers, including with and without exchange Divide 2-digit numbers by 1-digit numbers using known facts, partitioning and flexible strategies, including remainders Apply scaling in multiplication and division contexts Solve problems in multiple ways, justifying methods and comparing approaches Length and Perimeter Measure and compare length using standard units (mm, cm and m), including converting between units Use equivalent lengths and relationships between millimetres, centimetres and metres to solve problems Add and subtract lengths using appropriate units and strategies Compare, estimate and order lengths in different units Understand, measure and calculate perimeter of shapes Apply perimeter knowledge to solve practical measurement problems	Fractions B Understand and partition the whole when working with fractions Find unit and non-unit fractions of sets of objects and quantities Add and subtract fractions with the same denominator Apply fractions of amounts to solve problems Use reasoning to explain and justify fraction calculations in different contexts Money Understand pounds and pence and their relationship in the British currency system Convert between pounds and pence accurately Add and subtract money using efficient calculation strategies Solve problems involving finding change in real-life contexts Time Understand Roman numerals to 12 and use them in context Read, write and interpret time using analogue and digital clocks, including to the nearest minute and in 5-minute intervals Use am and pm accurately to distinguish between morning and afternoon times Understand and convert between units of time (seconds, minutes, hours, days,

	- Add and subtract two-digit and three-digit numbers using place value strategies - Add and subtract with no exchange (regrouping not required) - Add and subtract across 10 and 100, including when regrouping is required - Use known facts and patterns to support efficient mental and written calculation - Add and subtract 2-digit and 3-digit numbers using place value strategies, including formal and informal methods - Subtract a 2-digit number from a 3-digit number, applying efficient calculation strategies - Use complements to 100 to support mental calculation and number fluency - Estimate and check answers for reasonableness - Use inverse operations to check and solve calculations - Make informed decisions about the most efficient strategy to use when solving problems Multiplication and Division A - Understand multiplication and division as equal groups, sharing and grouping - Use arrays and concrete representations to model multiplication and division - Secure fluency in 2, 5 and 10 times tables and related multiples - Develop understanding of 3, 4 and 8 times tables, including multiplication and division facts - Recognise and use relationships between the 2, 4 and 8 times tables - Apply known multiplication and division facts to solve problems efficiently	Fractions A Understand unit fractions and the meaning of denominators Compare and order unit and non-unit fractions, including reasoning about numerators and size of the whole Represent and interpret fractions on number lines and use them to count in fractional steps Recognise and identify equivalent fractions using number lines and bar models Apply fractions to scales and measurement contexts to support real-world understanding Mass and Capacity Use scales to measure, compare and read mass accurately in grams and kilograms Understand equivalent masses and convert between kilograms and grams Add and subtract mass using appropriate units and calculation strategies Measure, compare and calculate capacity and volume in millilitres and litres Understand equivalence between litres and millilitres and use this to solve problems Apply addition and subtraction to capacity and volume in practical contexts	months and years) Calculate durations using start and end times, including solving multi-step time problems Apply time knowledge to solve real-life problems involving measurement and intervals Shape Understand turns and angles, including recognising right angles Compare, measure and accurately draw angles Identify horizontal, vertical, parallel and perpendicular lines Recognise, describe and classify 2-D shapes and draw polygons accurately Recognise, describe and construct 3-D shapes Understand and make connections between geometric properties to build and represent shapes in different ways Statistics Collect, organise and represent data in a variety of formats Draw and interpret pictograms and bar charts Interpret and use bar charts to answer questions and solve problems Use two-way tables to organise and compare data Analyse data representations to draw conclusions and support reasoning
Year 4	Place Value Understand the part-whole model - Read, write, represent and interpret numbers to 10,000. - Understand and apply place value to partition and flexibly partition numbers to 10,000. - Find 1, 10, 100 and 1,000 more or less than a given number. - Use number lines to represent, estimate, compare and order numbers to 10,000. - Read and write Roman numerals. - Round numbers to the nearest 10, 100 and 1,000. Addition and Subtraction - Add and subtract 1s, 10s, 100s and 1,000s using place value knowledge. - Add and subtract up to two 4-digit numbers using formal written methods, including exchanging. - Select efficient mental and written calculation strategies to solve addition and subtraction problems. - Estimate and check answers using appropriate strategies. - Apply addition and subtraction skills to solve problems and reason mathematically. Area - Understand area as the amount of surface covered by a shape. - Measure and calculate area by counting squares. - Create and compare shapes with different areas. - Compare and reason about the area of shapes using appropriate mathematical language. Multiplication and Division A - Recall and use multiplication and division facts for the 3, 6, 7, 9, 11 and 12 times tables. - Multiply and divide numbers using known multiplication and division facts. - Understand and apply the relationships between multiplication and division. - Multiply by 0 and 1, and divide by 1 and the number itself. - Multiply three numbers and solve problems involving multiplication and division.	Multiplication and Division B - Identify and use factor pairs and related multiplication and division facts. - Multiply and divide whole numbers by 10 and 100. - Use informal and formal written methods to multiply and divide numbers by a 1-digit number. - Apply efficient strategies for multiplication and division calculations. - Solve problems involving multiplication, division and correspondence. Length and Perimeter - Measure, compare and convert lengths in kilometres and metres. - Understand and use equivalent lengths involving kilometres and metres. - Measure and calculate the perimeter of rectangles, rectilinear shapes and polygons. - Find missing lengths and use them to solve perimeter problems. - Apply knowledge of perimeter to solve reasoning and problem-solving tasks. Fractions - Understand, represent and compare mixed numbers and improper fractions. - Convert between mixed numbers and improper fractions. - Identify and generate equivalent fractions using models and number lines. - Compare and order fractions, including mixed numbers and improper fractions. - Add and subtract fractions and mixed numbers. - Apply fraction knowledge to solve reasoning and problem-solving tasks. Decimals A - Understand and represent tenths and hundredths as fractions and decimals. - Use place value charts and number lines to represent and compare decimals. - Recognise the relationship between fractions, decimals and place value. - Divide 1-digit and 2-digit numbers by 10 and 100. - Apply knowledge of decimal place value to solve reasoning and problem-solving tasks.	Decimals B - Understand and represent decimals as parts of a whole, including tenths and hundredths. - Partition and flexibly partition decimal numbers using place value understanding. - Compare and order decimal numbers. - Round decimal numbers to the nearest whole number. - Recognise and use common fractions (halves and quarters) as decimals. Money - Understand and use decimal notation to represent money. - Convert between pounds and pence. - Compare, estimate and order amounts of money. - Calculate with money using addition and subtraction. - Solve real-life problems involving money and apply reasoning skills. Time - Understand and use units of time, including years, months, weeks, days, hours, minutes and seconds. - Read, interpret and convert between analogue and digital time. - Convert between 12-hour and 24-hour clock formats. - Solve problems involving time, including duration and conversion. Shape - Understand angles as measures of turns and identify and compare angles. - Classify and describe 2D shapes, including triangles, quadrilaterals and other polygons. - Identify and use lines of symmetry in shapes. - Complete and create symmetric figures. Statistics - Interpret and present data in a range of charts, including using comparison, sum and difference. - Interpret, draw and analyse line graphs. - Describe and compare trends in data over time. Position and Direction - Use coordinates to describe position in all four quadrants. - Plot and interpret coordinates on a grid. - Draw and describe 2D shapes on a coordinate grid. - Understand and perform translations on a coordinate grid. - Describe the direction and magnitude of translations using precise mathematical language.
Year 5	Place Value - Read, write, represent and interpret numbers up to 1,000,000, including Roman numerals to 1,000. - Understand place value in numbers up to 1,000,000, including powers of 10. - Partition and flexibly partition numbers up to 1,000,000.	Multiplication and Division B - Multiply whole numbers, including multiplying up to 4-digit numbers by 1-digit numbers and up to 4-digit numbers by 2-digit numbers. - Use a range of multiplication strategies, including area models and formal written methods.	Shape - Understand and use degrees to measure and describe angles. - Classify, estimate and measure angles, including up to 180°. - Draw and construct lines, angles and shapes accurately. - Calculate unknown angles on a straight line and around a point.

	- Find 1, 10, 100, 1,000, 10,000 and 100,000 more or less than a given number. - Use number lines to estimate, compare and order numbers up to 1,000,000. - Compare, order and round numbers within 100,000 and 1,000,000. - Round numbers to the nearest 10, 100 and 1,000 using place value understanding. Addition and Subtraction - Use mental and written strategies to add and subtract whole numbers, including large numbers. - Apply efficient calculation strategies, including rounding to estimate and check answers. - Use inverse operations to check and solve addition and subtraction calculations. - Solve multi-step problems involving addition and subtraction. - Compare calculations and determine efficiency of methods. - Find missing numbers using inverse operations and problem-solving strategies. Multiplication and Division A - Identify and use multiples, factors and common multiples. - Recognise and use common factors, including in problem-solving contexts. - Understand and identify prime, square and cube numbers. - Apply knowledge of number properties to classify and reason about numbers. - Multiply and divide whole numbers by 10, 100 and 1,000, including understanding patterns in place value. Fractions A - Recognise, generate and use equivalent fractions, including unit and non-unit fractions. - Convert between improper fractions and mixed numbers. - Compare and order fractions, including those less than and greater than 1. - Add and subtract fractions and mixed numbers, including cases requiring regrouping. - Solve problems involving fractions, including reasoning about equivalence, comparison and calculation.	- Divide whole numbers, including 4-digit numbers by 1-digit numbers, including with remainders. - Use and apply short division and efficient division strategies. - Solve problems involving multiplication and division, including multi-step and reasoning problems. Fractions B - Multiply unit and non-unit fractions, including mixed numbers, by integers. - Use fractions as operators to calculate fractions of quantities and amounts. - Find fractions of amounts and use them to solve problems. - Work backwards to find the whole from a known fraction. - Apply fraction multiplication and scaling to solve reasoning and real-life problems. Decimals and Percentages - Understand and use decimal numbers up to three decimal places, including thousandths. - Recognise, represent and convert between fractions, decimals and percentages. - Compare, order and interpret decimals with up to three decimal places. - Round decimals to the nearest whole number and to one decimal place. - Understand percentages as part of 100 and link them to fractions and decimals. Perimeter and Area - Calculate the perimeter of rectangles, rectilinear shapes and polygons. - Understand and calculate the area of rectangles and compound shapes. - Estimate area and use appropriate strategies to check reasonableness of answers. - Apply perimeter and area knowledge to solve reasoning and problem-solving tasks. Statistics - Interpret and construct line graphs, tables and two-way tables. - Read, interpret and compare data presented in different tabular formats. - Use timetables to read and interpret time-based information and solve problems. - Analyse data to identify patterns, comparisons and relationships.	- Identify and describe properties of polygons, including regular and irregular shapes. - Recognise and describe 3D shapes and their properties. Position and Direction - Understand and use degrees to measure and describe angles. - Classify, estimate, measure and draw angles accurately, including up to 180°. - Calculate and reason about angles on a straight line and around a point. - Identify, describe and compare properties of 2D shapes, including regular and irregular polygons. - Recognise, describe and work with lines of symmetry and reflections in horizontal and vertical lines. - Recognise and describe properties of 3D shapes. Decimals - Add and subtract decimals, including across 1 and within the same or different numbers of decimal places. - Use known number facts and complements to 1 to support efficient decimal calculations. - Apply efficient mental and written strategies to add and subtract decimals, including problem solving. - Understand and extend decimal sequences and patterns. - Multiply and divide decimals by 10, 100 and 1,000, including finding missing values. Negative Numbers - Understand and use negative numbers in context. - Count forwards and backwards through zero in 1s and in multiples. - Compare and order positive and negative numbers. - Calculate intervals and find the difference between positive and negative numbers. Converting Units - Convert, compare and calculate with metric units of measure, including length, mass, capacity and time. - Understand and use equivalent units, including conversions between metric and imperial measures. - Solve problems involving units of measure in real-life contexts, including timetables. - Convert between units of time and use these to calculate durations and solve problems. Volume - Understand and use units of volume and capacity, including cubic centimetres. - Estimate and compare volume and capacity using appropriate strategies. - Solve problems involving volume and capacity in practical contexts.
Year 6	Place Value - Read, write, represent and interpret numbers up to 10,000,000. - Understand place value, including powers of 10, in numbers up to 10,000,000. - Use number lines to represent, compare and order numbers and integers. - Compare, order and round any integers, including large numbers. - Understand and use negative numbers in context. Addition, Subtraction, Multiplication and Division - Add and subtract integers, including working across zero. - Understand and apply number properties, including factors, multiples, primes, square and cube numbers, and divisibility rules. - Use knowledge of factors and multiples to support efficient calculation strategies. - Multiply whole numbers, including up to 4-digit numbers by 2-digit numbers, using efficient written methods. - Divide whole numbers using a range of strategies, including short and long division, with and without remainders. - Apply the order of operations in calculations. - Solve multi-step problems involving all four operations, using mental strategies and estimation to check reasonableness. Fractions A - Identify, generate and use equivalent fractions, including on number lines. - Simplify fractions using common factors.	Ratio - Understand and use ratio language and notation to describe relationships between quantities. - Express ratios in different forms, including fractions. - Solve problems involving ratio and proportion in a range of contexts. - Use scale factors and interpret scale drawings. - Recognise and work with similar shapes. - Apply ratio and proportion to real-life contexts, including recipes and scaling problems. Algebra - Use and interpret function machines to represent rules and relationships. - Form and substitute into expressions, including simple formulae. - Form and solve equations, including one-step and two-step equations. - Find pairs of values and explore relationships between two variables. - Solve problems involving two unknowns, using algebraic reasoning. Decimals - Understand place value, including integers and decimals, and use this to compare and order numbers. - Round decimals appropriately to support calculation and estimation. - Add, subtract, multiply and divide decimals, including by integers.	Shape - Understand and use angles, including measuring, classifying and calculating unknown angles. - Apply angle facts, including vertically opposite angles and angles on a straight line. - Calculate angles in triangles, quadrilaterals and polygons, including special cases and missing angles. - Recognise and describe properties of circles. - Draw and construct shapes accurately using mathematical tools. - Identify and interpret nets of 3D shapes and relate them to solid shapes. Position and Direction - Understand and use coordinates in the first quadrant and across all four quadrants. - Read, plot and interpret coordinates on a coordinate grid. - Solve problems involving coordinates in different contexts. - Describe and perform translations on a coordinate grid. - Understand and carry out reflections in horizontal and vertical lines.

	- Compare and order fractions using common denominators and numerators. - Add and subtract fractions, including mixed numbers, with increasing complexity. - Solve problems involving fractions, including reasoning and calculation. Fractions B - Multiply and divide fractions, including multiplying fractions by integers and by fractions, and dividing fractions by integers. - Calculate fractions of amounts and use these to solve problems. - Work backwards to find the whole from a known fraction of an amount. - Apply fraction operations in mixed and multi-step problems. Converting Units - Convert, compare and calculate with metric units of measure, including length, mass, capacity and time. - Understand and use metric conversions and apply them to solve problems. - Use and apply knowledge of miles and kilometres, including comparisons and conversions. - Recognise and use imperial units alongside metric measures in context. - Solve problems involving measurement in real-life contexts.	- Multiply and divide numbers by 10, 100 and 1,000, including decimal numbers. - Use understanding of fractions, decimals and percentages interchangeably to solve problems. - Apply decimal and percentage knowledge in real-life and contextual problem solving. Fractions, Decimals and Percentages - Understand and use equivalence between fractions, decimals and percentages. - Interpret fractions as division and use this to support conversions. - Compare and order fractions, decimals and percentages. - Calculate percentages of amounts, including one-step and multi-step problems. - Solve problems involving missing values using fraction, decimal and percentage relationships. Area, Perimeter and Volume - Understand and compare area and perimeter, including shapes with the same area. - Calculate the area of triangles, including right-angled and general triangles. - Calculate the area of parallelograms. - Understand and calculate volume, including counting cubes and using formulae for cuboids. - Apply knowledge of area and volume to solve reasoning and problem-solving problems. Statistics - Interpret and construct a range of statistical representations, including line graphs, dual bar charts and pie charts. - Read, interpret and compare data, including pie charts expressed as fractions and percentages. - Draw and present data accurately in graphical form. - Understand and calculate the mean as an average. - Analyse data to identify patterns, comparisons and relationships.	
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