Maths End points

Pre-School	
Based on Developing Matters	**End point**
Number (Counting)	Begins to recite numbers in sequence up to 3.
Number (Quantity)	Recognizes and identifies small quantities (e.g., one, two, three objects).
Shape	Children explore and recognize basic shapes in their environment (e.g., circle, square).
Space	They understand basic positional language (e.g., in, on, under) and begin to use it to describe the location of objects.
Measure	Children compare sizes of objects using simple language (e.g., big, small) and explore basic concepts of measurement through hands-on activities.
These end points for mathematics in preschool align with the developmental expectations for 2 and 3-year-olds, focusing on foundational concepts of number recognition, counting, shape recognition, positional language, and basic measurement skills. They provide a basis for further mathematical understanding and readiness for more formal mathematical learning in later years.	

Maths End points

Nursery	
White Rose Maths topic being taught	**End point**
More than, fewer than, same	Children will be able to compare collections of objects, identifying which has more, fewer, or the same number.
Explore and build with shapes and objects	Children will explore different shapes and use them to build simple structures or arrangements, demonstrating understanding of shape properties.
Explore Repeats	Children will recognize and create simple repeating patterns using objects or actions.
Hear and say number names	Children will accurately hear and say number names up to 3.
Begin to order number names	Children will understand and begin to order number names from 1 to 3.
I see 1, 2, 3	Children will recognize and identify numbers 1, 2, and 3 in various contexts.
Join in with repeats	Children will actively participate in and continue simple repeating patterns.
Explore position and space	Children will explore and describe positions and spatial relationships (e.g., inside, outside, above, below).
Show me 1, 2, 3	Children will demonstrate understanding by showing quantities 1, 2, and 3 using objects or pictures.
Move and label 1, 2, 3	Children will move to specific positions and label them with numbers 1, 2, and 3.
Explore position and routes	Children will explore and describe routes and movements in relation to positions and landmarks.
Explore patterns	Children will recognize and create simple visual or action-based patterns.
Take and give 1, 2, 3	Children will understand and demonstrate sharing or giving objects in quantities of 1, 2, and 3.
Match, talk push and pull	Children will match objects based on attributes like push and pull, and describe their actions.
Talk about dots	Children will discuss and describe collections of dots, comparing their attributes.
Compare and sort collections	Children will compare and sort collections of objects based on size, shape, or other attributes.
Lead on own repeats	Children will independently create and continue simple repeating patterns.
Start to puzzle	Children will begin to solve simple puzzles involving shapes, patterns, or numbers.
Making patterns together	Children will collaborate to create and extend patterns using objects or actions.
Make games and actions	Children will invent and participate in games or actions that involve numbers, shapes, or patterns.
Show me 5	Children will demonstrate understanding of the number 5 by showing collections or quantities.

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My own pattern	Children will create and explain their own patterns using objects or actions.
Stop at 1, 2, 3, 4, 5	Children will accurately stop counting or arranging objects at numbers 1 to 5.
Match, sort and compare	Children will confidently match, sort, and compare objects based on various attributes, applying their understanding verbally and through actions.

Maths End points

Reception	
White Rose Maths topic being taught	**End point**
Match, Sort and Compare	Children will be able to independently match, sort, and compare objects based on various attributes such as size, colour, shape, etc., demonstrating understanding through verbal explanations and simple written descriptions.
Talk about measure and patterns	Children will confidently use mathematical language to describe measures such as length, weight, and capacity. They will recognize and create simple patterns, extending them with increasing complexity as they progress.
It's me, 1, 2, 3	Children will securely count and recognize numbers 1, 2, and 3. They will understand the concept of counting in sequence and demonstrate basic numeral recognition and formation.
Circles and Triangles	Children will recognize, describe, and compare circles and triangles based on their properties (e.g., number of sides, corners). They will use these shapes in creative activities and identify them in real-life contexts.
1, 2, 3, 4, 5	Children will count and recognize numbers 1 to 5 accurately. They will use objects and pictures to represent and solve simple addition and subtraction problems within 5.
Shapes with 4 sides	Children will identify and name quadrilaterals and other shapes with four sides. They will describe their properties and distinguish them from other shapes based on visual and tactile observations.
Alive in 5	Children will have a deep understanding of the number 5, including its composition (e.g., 2 + 3, 4 + 1), representation (numeral and quantity), and basic addition and subtraction facts within 5.
Mass and capacity	Children will compare and measure objects using mass (weight) and capacity (volume). They will use appropriate vocabulary to describe and order objects based on these attributes.
Growing 6, 7, 8	Children will count and recognize numbers 6, 7, and 8 accurately. They will understand the sequence and relationship between numbers, and use them in simple addition and subtraction contexts.

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Length, Height and Time	Children will measure and compare lengths and heights of objects using non-standard units and begin to understand basic concepts of time such as morning, afternoon, and night.
Building 9 and 10	Children will confidently represent and understand numbers 9 and 10, recognizing their composition (e.g., 5 + 4, 10 - 1) and using them in counting, addition, and subtraction activities.
Explore 3-D shapes	Children will identify and describe common 3D shapes (e.g., cube, sphere) based on their properties such as faces, edges, and vertices. They will use these shapes to create models and solve spatial problems.
To 20 and beyond	Children will count and recognize numbers up to 20 accurately. They will understand the sequence of numbers beyond 20 and use them in counting, addition, and subtraction contexts.
How many now?	Children will develop strong counting skills, recognize number patterns, and solve simple problems involving quantities and number relationships in various contexts.
Manipulate, compose and decompose	Children will manipulate and decompose numbers into smaller parts (e.g., breaking down 7 into 3 + 4) and compose them back together. They will understand the relationship between addition and subtraction.
Sharing and grouping	Children will demonstrate an understanding of sharing (division) and grouping (multiplication) using objects and pictures. They will solve basic sharing and grouping problems in practical contexts.
Visualise, build and map	Children will visualize and build models or representations to solve problems and organize information using maps or diagrams. They will make connections between visual representations and mathematical concepts.
Make Connections	Children will make connections between different mathematical concepts, skills, and contexts. They will apply their understanding to solve problems, explain reasoning, and explore mathematical ideas across different learning experiences.

Maths End points

Year 1	
White Rose Maths topic being taught	**End point**
Place Value (within 10)	Children will be able to count to 10, recognize and write numbers to 10, compare numbers using more/less, and order numbers up to 10.
Addition and Subtraction (within 10)	Children will confidently use addition and subtraction within 10, understanding number bonds, and beginning to use mental strategies for simple calculations.
Shape	Children will be able to identify and describe 2D shapes and their properties.
Place Value (within 20)	Children will confidently count to 20, recognize and write numbers up to 20, and understand the place value of teen numbers.
Addition and Subtraction (within 20)	Children will use addition and subtraction within 20 effectively, understand related number facts, and apply number bonds to 20.
Place Value (within 50, including multiples of 2, 5, and 10)	Children will count in multiples of 2, 5, and 10, and confidently compare and order numbers up to 50.
Measurement: Length and Height	Children will compare, measure, and understand length and height using non-standard and standard units.
Measurement: Mass and Volume	Children will compare, measure, and understand mass and volume using non-standard and standard units.
Multiplication and Division	Children will understand basic concepts of multiplication and division, using practical methods to solve simple problems.
Fractions	Children will identify and find halves and quarters of shapes and quantities.
Geometry: Position and Direction	Children will use positional language accurately and describe movements and turns.
Place Value (within 100)	Children will confidently count to 100, recognize and write numbers up to 100, and understand place value of tens and ones.
Measurement: Money	Children will recognize coins and notes, understand their value, and solve simple money problems.
Measurement: Time	Children will tell time to the hour and half past, understand calendar concepts, and sequence events correctly.

Maths End points

Year 2	
White Rose Maths topic being taught	**End point**
Place Value (within 100)	Children will confidently count, read, and write numbers up to 100, understand place value (tens and ones), and compare and order numbers up to 100.
Addition and Subtraction (within 20)	Children will confidently use number bonds to 20 and perform addition and subtraction with one-digit and two-digit numbers using mental and written methods.
Shape	Children will identify, describe, compare, and sort common 2D and 3D shapes and recognize lines of symmetry.
Money	Children will recognize and use money symbols, combine amounts to make specific values, and solve simple addition and subtraction problems involving money.
Multiplication and Division	Children will recall multiplication and division facts for the 2, 5, and 10 times tables, perform related calculations, and solve simple problems involving multiplication and division.
Measurement: Length and Height	Children will measure, compare, and order lengths and heights using appropriate units and tools, and solve practical problems involving these measurements.
Measurement: Mass, Capacity, and Temperature	Children will measure, compare, and order mass, capacity, and temperature using appropriate units and tools, and read scales accurately.
Fractions	Children will recognize and find fractions of lengths, shapes, sets of objects, and quantities, and understand and use basic fraction terminology.
Measurement: Time	Children will tell the time to the nearest five minutes, understand key terms related to time, and compare and sequence intervals of time.
Statistics	Children will interpret and construct pictograms, tally charts, block diagrams, and tables, and answer questions about the data presented.
Geometry: Position and Direction	Children will accurately describe position, direction, and movement using appropriate vocabulary and understand different types of turns.

Maths End points

Year 3	
White Rose Maths topic being taught	**End point**
Place Value	Children will confidently understand the place value of three-digit numbers, compare, and order numbers up to 1,000, and count in multiples of 50 and 100.
Addition and Subtraction	Children will use mental and formal methods for addition and subtraction, estimate answers, check using inverse operations, and solve related problems.
Multiplication and Division (A)	Children will recall multiplication and division facts for the 3, 4, and 8 times tables and apply these strategies to solve problems.
Multiplication and Division (B)	Children will use formal written methods for multiplication and division and solve related problems confidently.
Measure: Length and Perimeter	Children will measure, compare, and calculate lengths and perimeter using appropriate units and tools.
Fractions (A)	Children will understand and use fractions as numbers and parts of a whole, compare and order fractions.
Measure: Mass and Capacity	Children will measure and compare mass and capacity using appropriate units and perform related calculations confidently.
Fractions (B)	Children will add and subtract fractions with the same denominator
Measurement: Money	Children will confidently add and subtract money and solve practical problems involving money.
Measurement: Time	Children will tell and write the time accurately, estimate and read time to the nearest minute, and use appropriate vocabulary related to time.
Geometry: Properties of Shape	Children will draw and describe 2D and 3D shapes, recognize and describe angles, and identify right angles and other angles in shapes and turns.
Statistics	Children will interpret and present data using bar charts, pictograms, and tables and solve related questions.

Maths End points

Year 4	
White Rose Maths topic being taught	**End point**
Place Value	Children will confidently understand the place value of four-digit numbers, order and compare numbers beyond 1,000, and round numbers to the nearest 10, 100, or 1,000.
Addition and Subtraction	Children will use formal written methods for addition and subtraction, estimate answers, check using inverse operations, and solve related problems.
Measure: Area	Children will find the area of rectilinear shapes by counting squares and understand the relationship between area, arrays, and multiplication.
Multiplication and Division (A)	Children will recall multiplication and division facts up to 12 × 12, use mental calculations, understand factor pairs, and multiply two-digit and three-digit numbers by a one-digit number using formal methods.
Multiplication and Division (B)	Children will solve multiplication and division problems involving scaling and correspondence problems confidently.
Measure: Length and perimeter	Children will measure and calculate the perimeter of rectilinear figures and convert between units of measure confidently.
Measure: Mass and Capacity	Children will measure and compare mass and capacity using appropriate units and perform related calculations confidently.
Fractions	Children will recognize and use equivalent fractions, solve fraction problems, add and subtract fractions with the same denominator, and understand decimal equivalents.
Decimals (A)	Children will recognize and write decimal equivalents and understand the place value of digits resulting from division by 10 and 100.
Decimals (B)	Children will understand and use decimal equivalents, round decimals, compare decimals, and solve measure and money problems involving fractions and decimals.
Measurement: Money	Children will confidently solve problems involving money using decimal notation.
Measurement: Time	Children will read, write, and convert time between analogue and digital 12- and 24-hour clocks and solve related problems.
Geometry: Shape	Children will identify and compare angles, recognize lines of symmetry, and complete symmetric figures.

Maths End points

Statistics	Children will interpret and present data using graphical methods and solve problems based on the data.
Geometry: Position and direction	Children will describe positions, movements, and plot points on a 2D grid as coordinates in the first quadrant.

Maths End points

Year 5	
White Rose Maths topic being taught	**End point**
Place Value	Children will confidently understand place value for numbers up to 1,000,000 and round numbers to the nearest 10, 100, 1,000, 10,000, and 100,000.
Addition and Subtraction	Children will use formal written methods and mental strategies for addition and subtraction, use rounding to check answers, and solve multi-step problems.
Multiplication and Division (A)	Children will identify multiples, factors, prime numbers, and use formal written methods for multiplication and division.
Fractions (A)	Children will compare, order, and recognize equivalent fractions, convert between mixed numbers and improper fractions, and add and subtract fractions with common denominators.
Multiplication and Division (B)	Children will use formal written methods for multiplication and division and solve related problems.
Fractions (B)	Children will multiply proper fractions and mixed numbers by whole numbers and solve related problems involving fractions and scaling.
Decimals and Percentages	Children will work with numbers up to three decimal places, round decimals, solve related problems, and understand and use percentages.
Measure: Perimeter and area	Children will measure and calculate perimeter and area of rectilinear shapes and estimate the area of irregular shapes.
Statistics	Children will solve problems using line graphs and interpret information in tables and timetables.
Geometry: Properties of shape	Children will identify 3D shapes from 2D representations, understand and measure angles, and distinguish between regular and irregular polygons.
Geometry: Position and direction	Children will understand and use the concepts of reflection and translation.
Decimals	Children will add and subtract decimals, solve problems involving decimals, and use all four operations with decimal measures.
Place Value (Negative Numbers)	Children will understand and work with negative numbers in various contexts.
Measure: Converting Units	Children will confidently convert between different units of metric and imperial measures and solve related problems.
Measure: Volume	Children will estimate volume and capacity, solve problems involving time, and use all four operations to solve measurement problems.

Maths End points

Year 6	
White Rose Maths topic being taught	**End point**
Place Value	Children will confidently understand place value for numbers up to 10,000,000, round numbers accurately, and work with negative numbers
Addition, Subtraction, Multiplication and Division	Children will use formal written methods for all four operations, solve multi-step problems, and understand factors, multiples, and prime numbers.
Fractions (A)	Children will simplify fractions, compare and order fractions, and add and subtract fractions with different denominators.
Fractions (B)	Children will multiply and divide fractions, calculate decimal equivalents, and solve percentage problems.
Measure: Converting Units	Children will confidently convert between different units of metric and imperial measures and solve related problems.
Ratio	Children will understand and solve problems involving ratio, scaling, and percentages.
Algebra	Children will understand and use basic algebraic concepts and solve problems involving equations and sequences.
Decimals	Children will work confidently with numbers up to three decimal places and solve related problems.
Fractions, Decimals and Percentages	Children will calculate and compare percentages and recall equivalences between fractions, decimals, and percentages.
Area, Perimeter and Volume	Children will calculate and compare the area and volume of shapes, using formulae where appropriate.
Statistics	Children will interpret and construct pie charts and line graphs, and calculate the mean.
Geometry: Shape	Children will draw and build shapes, compare and classify shapes, and find unknown angles.
Geometry: Position and direction	Children will describe positions on a full coordinate grid, translate and reflect shapes.

Maths End points