



<u>Substantive Knowledge</u>		<u>Disciplinary Knowledge</u>	
In mathematics, substantive knowledge is the mathematical content that pupils learn and remember. This includes: Number and place value Addition, subtraction, multiplication and division Fractions, decimals and percentages Measurement Geometry (shape, position and direction) Statistics Algebra (where appropriate) Through the White Rose Maths curriculum, pupils develop a secure understanding of mathematical concepts, facts, procedures and vocabulary, building knowledge progressively over time.		In mathematics, disciplinary knowledge is how pupils think and work as mathematicians. This includes: Reasoning mathematically and explaining thinking Solving problems using efficient strategies Making connections between mathematical concepts Representing ideas using concrete, pictorial and abstract methods Investigating patterns and relationships Justifying answers and proving whether statements are true or false Through White Rose Maths, pupils develop fluency, reasoning and problem-solving skills, enabling them to apply their mathematical knowledge in a range of contexts.	
	Autumn	Spring	Summer
Nursery	Counting – Hear and say number names Counting – Begin to order number names Comparison – More than, fewer than, same Subitising – I see 1,2,3 Pattern – Explore repeats Pattern – Join in with repeats SS&M – Explore and build with shapes and objects	Move and label 1,2,3 Counting – Take and give 1,2,3 Comparison – Compare and sort collections Subitising – Show me 1,2,3 Pattern – Explore own first patterns Pattern – Lead on own repeats SS&M – Explore position and space SS&M – Explore position and routes	Counting – Show me 5 Counting – Stop at 1,2,3,4,5 Comparison – Match, sort, compare Subitising – Talk about dots Subitising – Make games and actions Pattern – Make patterns together Pattern – My own pattern SS&M – Match, talk, push and pull SS&M – Starting to puzzle
Reception	Part and whole of objects Match, sort and compare Talk about measure and patterns It's me 1, 2, 3 Consolidation of 1, 2, 3 Circles and triangles 1, 2, 3, 4, 5 Shapes with 4 sides Consolidation numbers 1-5	Consolidation of unit 1, 2, 3, 4, 5 Alive in 5 Mass and Capacity Growing 6 7 8 Growing 6 7 8: odds and evens/ doubles Length, height and time Building 9 and 10	To 20 and beyond How many now? Sharing and grouping Explore 3D shapes Manipulate, Compose and Decompose Visualise, Map and Build

	Autumn	Spring	Summer
Year 1	Place value within 10 Addition and subtraction	Geometry Place value within 20 Addition and subtraction Place Value within 50	Length and height Mass and Volume Multiplication and Division Fractions Position and Direction Place Value Money Time
Year 2	Place value Addition and subtraction Shape	Money Multiplication and Division Length and Height Mass, capacity and temperature	Fractions Time Statistics Position and direction
Year 3	Place value Addition and subtraction Multiplication and division A	Multiplication and division B Length and Perimeter Fractions A Mass and capacity	Fractions B Money Time Shape Statistics
Year 4	Place value Addition and subtraction Area Multiplication and division A	Multiplication and division B Length and perimeter Fractions Decimals A	Decimals B Money Time Shape Statistics Position and direction