Reasoning Long Term Plan (EYFS)

Autumn		Spring		Summer	
Children in Nursery will be learning to: A deep understanding of composition and cardinality of numbers 0-3 An understanding of the cardinal principle of counting- knowing that the last number we reach when counting is how many there are Subitising up to 3 objects **Linked to White Rose Maths- Nursery:** Consolidate 1-3 Finger counting to 5 Symbols and marks Problem solving up to 5 Position Location/routes Pattern Children in Reception will be learning to: A deep understanding of	**Children in Nursery will be learning to:** Recognising and writing numerals 1-3 Exploring and creating repeating patterns Begin to use language such as more than and fewer than when talking about numbers Exploring 2D and 3D shapes using some mathematical language such as sides, corners **Linked to White Rose Maths- Nursery:** Counting Ordering Finger counting to 5 Symbols and marks Problem solving up to 5 2 and 3D shapes Comparing with measures Children in Reception will be	**Children in Nursery will be learning to:** A deep understanding of the composition and cardinality of numbers 3-5 An understanding of the cardinal principle of countingknowing that the last number we reach when counting is how many there are Subitising up to 5 objects Recognising and writing numerals 3-5 **Linked to White Rose Maths- Nursery:** Pattern Counting Finger numbers to 5 Symbols and marks Comparing quantities 2 and 3D shapes Sequencing Children in Reception will be learning to: A deep understanding of numbers 6-10, including composition, counting, subitising, addition and	**Children in Nursery will be learning to:** Exploring and creating repeating patterns Confidently use language such as more than and fewer than when talking about numbers Exploring 2D and 3D shapes using some mathematical language such as sides, corners Compare weight, length and height Begin to solve real world problems with numbers up to 5 Show finger numbers up to 5. **Linked to White Rose Maths- Nursery:** Subitising Ordering Sorting and matching Finger numbers to 5 Symbols and marks Comparing quantities Children in Reception will be learning to: Automatically recall some number bonds to 5 Verbally	**Children in Nursery will be learning to:** A deep understanding of composition and cardinality of numbers 0-5. An understanding of the cardinal principle of counting- knowing that the last number we reach when counting is how many there are. Subitising up to 5 objects. Recognising and writing numerals 0-5 Correcting errors in repeating patterns Confidently use language such as more than and fewer than when talking about numbers. **Linked to White Rose Maths- Nursery:** Solving problems up to 5 Subitising Compare measures Symbols and marks Comparing quantities Counting Sequencing Children in Reception will be	**Children in Nursery will be learning to:** Exploring 2D and 3D shapes using some mathematical language such as sides, corners Compare weight, length and height Solve real world problems with numbers up to 5 Show finger numbers up to 5 Beginning to mark make to represent their own mathematical symbols and record their thinking Use language related to time such as first and next **Linked to White Rose Maths- Nursery:** Counting Position Routes/locations Sequencing Solving problems beyond 5 Pattern Comparing measure Children in Reception will be learning to: Automatically recall double facts Compare quantities up to 10 and comparing when one is more

numbers 0-5, including composition, counting, subitising, addition and subtraction, recognition 1:1 correspondence, size, weight and capacity, doubling, halving and sharing, less than, more than, 2D Shapes, money, 3D shape, time, measurement, position, distance **White Rose Maths-Reception Only** Getting to know you: Baseline Just like me: Match and sort Compare amounts Compare size mass and capacity Exploring patterns Consolidate 1-3	learning to: Exploring and creating repeating patterns Spatial reasoning through shape. Selecting, manipulating and rotating shapes Decomposing shapes to understand they can have other shapes within them too, just like numbers can Verbally count to 10, recognising the pattern of the counting system Recognise and write numerals 0- 5 **White Rose Maths-Reception Only** It's me 1,2,3: Representing, comparing & composition of 1,2,3 Circles and Triangles Positional language Subitising Light and dark: Representing numbers to 5 One more and less Shapes with 4 sides Time	subtraction, recognition 1:1 correspondence, size, weight and capacity, doubling, halving and sharing, less than, more than, 2D Shapes, patterns, money, 3D shape, time, measurement, position, distance **White Rose Maths-Reception Only** Alive in 5: Introducing zero Comparing numbers to 5 Composition of 4 & 5 Compare mass and capacity Balancing numicon Growing 6,7,8: 6, 7 & 8 Making pairs Combining 2 groups Length & height/time Ten frames	count to 20, recognising the pattern of the counting system Explore and represent patterns within numbers including events and odds Recognise and write numerals 6-10 **White Rose Maths-Reception Only** Building 9 & 10: 9 & 10 Comparing numbers to 10 Bonds to 10 3D shape Pattern Consolidation: Subitising Counting Composition	learning to: A deep understanding of numbers 0-10, including composition, counting, subitising, addition and subtraction, recognition 1:1 correspondence, size, weight and capacity, doubling, halving and sharing, less than, more than, 2D Shapes, patterns, money, 3D shape, time, measurement, position, distance Automatically recall number bonds to 5 and some number bonds to 10 Recognise and write numerals to 0-10 **White Rose Maths-Reception Only** To 20 and beyond: Building numbers beyond 10 Counting patterns beyond 10 Number bonds 10-20 Match, rotate, manipulate First, then and now: Adding more Taking away Compose and decompose	or less than Verbally count to 20 and beyond, recognising the pattern of the counting system Explore and represent patterns within numbers including events and odds **White Rose Maths-Reception Only** Find my pattern: Double Sharing and grouping Even and odd Counting system On the move: Deepening understanding of the counting system Doubling Patterns & relationships

Reasoning Long Term Plan (Year 1)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	Place Value					Addition and Subtraction				Time	Geometry		Assessment week	Christmas topic work	
Sp	Place value (within 20)			Addition and Subtraction (within 20)			Place value (within 50)		Measure Height Length		Assessment week	Measure Mass Volume	Money		
Su	Multiplication and division			Fractions		Geometry Position and direction	Place value (within 100)		Assessment week	Shape					

Succeeding Together in Faith and Love

Reasoning Long Term Plan (Year 2)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	Place Value					Addition and Subtraction				Time	Geometry		Assessment week	Christmas topic work	
Sp	Money		Multiplication				Length and height		Capacity and mass		Assessment week		Temperature		
Su	Fractions			Time		Shape		Statistics	Assessment week	Statistics					

Succeeding Together in Faith and Love

Reasoning Long Term Plan (Year 3)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	**Place value** Counting Partitioning Ordering Rounding			**Addition and Subtraction** Using number bond facts to add and subtract Adding and subtracting ones Adding 2 and 3-digit numbers Subtracting 2 and 3-digit numbers Compliments to 100					**Multiplication and Division** Multiplying and dividing by 2,5,10,3,4 and 8				Assessment week	Christmas topic work	
Sp	**Multiplication and Division** Multiples of 10 Multiplying 2-digit by 1 digit Dividing 2-digit by 1 digit Scaling			**Length and Perimeter** Estimating and measuring lengths (cm and mm) Calculating perimeter			**Fractions** Unit fractions Non-unit fractions Equivalent fractions		**Mass and Capacity** Measuring mass and capacity Add and subtract measurements		Assessment week	**Fractions** Add and subtract fractions Fractions of quantities			
Su	**Money** Multiplying and dividing by 2,5,10,3,4 and 8		**Time** Multiplying and dividing by 2,5,10,3,4 and 8		**Shape** Multiplying and dividing by 2,5,10,3,4 and 8		**Statistics** Multiplying and dividing by 2,5,10,3,4 and 8		Assessment week	**Time** Continued					

Succeeding Together in Faith and Love

Reasoning Long Term Plan (Year 4)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	Place value Roman numerals Partitioning Ordering Rounding				Addition and Subtraction Written subtraction and addition including estimation			Multiplication and Division Multiplication tables (3,6,7,9,11,12 x tables) Corresponding division facts Multiplying 3 single digit numbers			Area Counting squares and comparing different areas	Revision Week	Assessment week	Christmas topic work	
Sp	Multiplication and Division Factors Dividing and multiplying by 10 and 100 Dividing and multiplying by 2/3 digit numbers by 1 digit numbers			Length and Perimeter	Fractions Mixed and improper fractions Adding and subtracting multiple fractions Adding fractions to mixed fractions			Decimals Tenths and hundredths as fractions and decimals Dividing numbers by 10			Assessment week	Money Use decimals			
Su	Decimals Order/compare, partition and round decimals	Time Units of time 24 hour clock		Shape Identifying angles Lines of symmetry	Statistics		Position and Direction Coordinates Translation	Assessment week	Recap and Consolidation						

Succeeding Together in Faith and Love

Reasoning Long Term Plan (Year 5)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	Place value Roman numerals Partitioning Ordering Rounding			Addition Subtraction	Multiplication and Division Multiples Prime numbers Factors Squared number Multiplying and dividing by 10,100 and 1000			Fractions Order and compare fractions Add and subtract fractions with different denominators Mixed fractions				Revision week	Assessment week	Christmas topic work	
Sp	Multiplication and Division consolidate in arithmetic sessions		Fractions multiplying fractions by integers Finding fractions of quantities		Decimals and Percentages			Statistics		Perimeter	Assessment week	Decimals and Percentages (focus on calculations)			
Su	Decimals Adding and subtracting decimals Multiplying decimlas Decimal sequences		Shape 2D/3D shapes Angles		Position and direction	Negative numbers	Converting units	Volume	Assessment week	Volume (continued)	Long division				

Succeeding Together in Faith and Love

Reasoning Long Term Plan (Year 6)

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
A	**Place value** Roman numerals Partitioning Ordering Rounding		**4 Operations** Addition Subtraction Division Mutliplication						**Fractions A** Equivalent fractions Compare and order fraction Add and subtract fractions		**Fractions B** Multiplying and dividing fractions Finding fractions of numbers		Assessment week	**Shape** Angles in 2D shapes Circles 3D shapes	
Sp	**Ratio** Roman numerals Partitioning Ordering Rounding		**Algebra** Function machines Formulas Finding values		**Decimals** Rounding Add, subtract, multiply and divide decimals		**Fractions/ decimals and percentages**		**Area/Perimeter and Volume** Perimeter Area of triangles/parallelogram Volume of cuboids and cubes		Assessment week	**Statistics** Line graphs Double bar charts Pie charts Finding the mean			
Su	SATs Preparation			Assessment week	Themed projects, consolidation and problem solving tasks (enterprise projects)										

Succeeding Together in Faith and Love