Mathematics

At St James we are following the White Rose Scheme of Learning, supplemented with resources from other sources including NRich, Third Space Learning, Teach Active, Target Maths.

Below is a topic grid for when each area of learning will be studied. Refer also to individual year group objectives and the whole school progression map.

Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Sumer 2
Through enhanced and continuous provision Children in Reception will: M - Count objects, actions and sounds. Subitise. Link the number symbol (numeral) with its cardinal number value. Count beyond ten. Compare numbers. Understand the 'one more than/one less than' relationship between consecutive numbers. Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. Select, rotate and manipulate shapes to develop spatial reasoning skills. Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. Continue, copy and create repeating patterns. Compare length, weight and capacity.			Through continuous provision Children I Reception will: CL - Learn new vocabulary and use throughout the day in different contexts. Ask questions to find out more and to check they understand what has been said to them. PSED - See themselves as a valuable individual. Show resilience and perseverance in the face of challenge. PD - Develop their small motor skills so that they can use a range of resources competently, safely and confidently KUW - Draw information from a simple map. Explore the natural world around them. Understand the effect of changing seasons on the natural world around them Children will experience mathematics in all areas of provision both inside and outside, through our daily routines and in response to their interests and needs.			
(Enhanced Provision – Daily whole class input focus)	Wk 1 Getting to know the setting	Wk 8 Composition of 1,2,3	Wk 1 Introducing 0 Composition of 5	Wk 7 Combining numbers	Wk 1 Counting and build beyond 10	Wk 7 Doubling
Number	Wk 2 Getting to know the setting	Wk 9 Circles & triangles	Wk 2 Comparing mass	Wk 8 Length and height Time	Wk 2 Counting and build beyond 20	Wk 8 Sharing and grouping
Measure, shape & spatial thinking	Wk 3 Match & sort	Wk 10 Positional language	Wk 3 Comparing capacity	Wk 9 Counting and composition of 9	Wk 3 Spatial reasoning	Wk 9 Even and odd
	Wk 4 Compare amounts	Wk 11 Representing number to 5	Wk 4 Counting to 6, 7 & 8. Making pairs	Wk 10 Counting and composition of 10	Wk 4 Adding more	Wk 10 Consolidation of number
	Wk 5 Compare size, mass & capacity	Wk 12 One more & less	Wk 5 Composition of 6 & 7	Wk 11 3D shape and pattern	Wk 5 Taking away	Wk 11 Consolidation of spatial reasoning
	Wk 6 Exploring pattern	Wk 13 Shapes with 4 sides Time	Wk 6 Composition of 8	Wk 12 Consolidation	Wk 6 Spatial reasoning	Sports week
	Wk 7 Representing 1,2,3 Comparing 1,2,3	Wk 14 Consolidation				Wk 13 Consolidation
Key facts	Number bonds for all number to 5 Doubles fact to 5 Count in 1s		Number bonds for all numbers 6-10 Doubles facts to 10		Number bonds for all numbers 1-10 Doubles facts to 10 Count in 10s	
Recording	Form numbers correctly		Draw pictures Draw part-part whole models		Use number lines Begin to write calculations	

Year 1 Termly topics Number – Number & place value						
	Wk 1 - Place value within 10	Wk 7 – Addition & subtraction – bar model	Wk 1 - Number – Place Value within 20	Wk 7 - Place Value (within 50)	Consolidation	Wk 7 - Number – Place Value (Within 100)
	Wk 2 - Place value – missing numbers	Wk 8 – Addition & subtraction – number bonds	Wk 2 - Addition and subtraction	Wk 8 - Measurement – Length and Height	Wk 2 - Multiplication and division	Wk 8 - Number – Place Value (Within 100)
	Wk 3 - Place value – one more/less	Wk 9 – Addition & subtraction – number bonds	Wk 3 - Addition and subtraction	Wk 9 - Measurement – Length and Height	Wk 3 - Multiplication and division	Wk 9 - Measurement - Money

Number – addition & subtraction Number – multiplication & division Number - fractions Geometry Measurement Statistics Ratio & proportion Algebra	Wk 4 - Place value – greater than/comparing	Wk 10 - Addition & subtraction – fact families	Wk 4 - Addition and subtraction	ASSESSMENT WEEK	Wk 4 - Multiplication and division	Wk 10 - Measurement – Time
	Wk 5 - Place value – comparing/ ordering	Wk 11 – Addition & subtraction – subtraction	Wk 5 - Place Value within 50	Wk 11 - Measurement – Weight and Volume	Wk 5 - Number – Fractions	ASSESSMENT WEEK
	Wk 6 - Place value – number lines	Wk 12 – geometry – 2D & 3D shapes	Wk 6 - Place Value within 50	Wk 12 - Measurement – Weight and Volume	Wk 6 - Number – Fractions Geometry - Position and direction	SPORTS WEEK
		Wk 13 – place value within 20				Wk 13 - Consolidation
Key facts	Number bonds for all numbers 1-15 Count in 1s, 10s, 5s, 2s		Number bonds for all numbers 1-20		Number bonds for multiples of ten to one hundred.	
Recording	Bar models Number lines – jumps of one		Bar models Number lines – jumps of whole numbers		Bar models Number lines – jumps of tens and ones	

Year 2

Number – Number & place value Number – addition & subtraction Number – multiplication & division Number - fractions Geometry Measurement Statistics Ratio & proportion Algebra	Wk 1 - Number: Place value	Wk 7 - Number: Addition and subtraction	Wk 1Consolidation	Wk 7 - Statistics	Wk 1 - Number: Fractions	Wk 7 - Measurement: Time
	Wk 2 - Number: Place value	Wk 8 - Number: Addition and subtraction	Wk 2 - Number: Multiplication and division	Wk 8 - Geometry: Properties of shape	Wk 2 - Number: Fractions	Wk 8 - Measurement: Time
	Wk 3 - Number: Place value	Wk 9 - Measurement - money	Wk 3 - Number: Multiplication and division	Wk 9 - Geometry: Properties of shape	Wk 3 - Number: Fractions	Wk 9 - Measurement: Time Mass, capacity and temperature
	Wk 4 - Number: Addition and subtraction	Wk 10 - Measurement - money	Wk 4 - Number: Multiplication and division	ASSESSMENT WEEK	Wk 4 - Measurement: length and height	Wk 10 Measurement: Mass, capacity and temperature
	Wk 5 - Number: Addition and subtraction	ASESSMENT WEEK	Wk 5 - Number: Multiplication and division	Wk 11 - Geometry: Properties of shape	Wk 5 - Geometry: position and direction	ASSESSMENT WEEK
	Wk 6 Number: Addition and subtraction	Wk 12 - Number : multiplication & division	Wk 6 - Statistics	Wk 12 - Consolidation	Wk 6 - Geometry: position and direction	Sports week
		WK 13 - Consolidation				Wk 13 Consolidation
Key Facts	Ten times table Five times table Two times table		Ten times table Five times table Two times table		Ten times table Five times table Two times table	
Recording	Bar models Number lines Partitioning		Bar models Number lines Partitioning		Bar models Number lines Partitioning Expanded column method addition & subtraction – no boundary crossing	

Year 3

Number – Number & place value Number – addition & subtraction Number – multiplication & division Number - fractions Geometry Measurement Statistics Ratio & proportion	Wk 1 - Place Value	Wk 7 - Addition and Subtraction	Wk 1 - Consolidation	Wk 7 - Statistics Measurement: Length and Perimeter	Wk 1 - Consolidation	Wk 7 - Measurement: Time
	Wk 2 - Place Value	Wk 8 - Multiplication and Division	Wk 2 - Multiplication and Division	Wk 8 - Measurement: Length and Perimeter	Wk 2 - Fractions	Wk 8 - Geometry: Properties of Shape
	Wk 3 - Addition and Subtraction	Wk 9 - Multiplication and Division	Wk 3 - Multiplication and Division	Wk 9 - Measurement: Length and Perimeter	Wk 3 - Fractions	Wk 9 - Geometry: Properties of Shape Measurement: Mass and Capacity
	Wk 4 - Addition and Subtraction	Wk 10 - Multiplication and Division	Wk 4 - Multiplication and Division	ASSESSMENT WEEK	Wk 4 - Fractions	Wk 10 Measurement: Mass and Capacity

Algebra	Wk 5 - Addition and Subtraction	ASSESSMENT WEEK	Wk 5 - Measurement: Money	Wk 11 - Number: Fractions	Wk 5 - Fractions	ASSESSMENT WEEK
	Wk 6 - Addition and Subtraction	Wk 12 - Multiplication and Division	Wk 6 - Statistics	Wk 12 - Number: Fractions	Wk 6 - Measurement: Time	Sports week
		Wk 13 - Multiplication and Division				Wk 13 Consolidation
Key facts	Four times table Eight times table Three times table		Four times table Eight times table Three times table		Four times table Eight times table Three times table	
Recording	Bar models Number lines Expanded column method addition & subtraction Decomposition addition Multiplication grid method		Bar models Number lines Expanded column method addition & subtraction Decomposition addition & subtraction Multiplication grid method Partitioning to divide		Bar models Number lines Expanded layout addition & subtraction Decomposition addition & subtraction Multiplication grid method Partitioning to divide	

Year 4						
Number – Number & place value	Wk 1 - Place Value	Wk 7 - Addition and Subtraction	Wk 1 - Consolidation	Wk 7 - Number: Fractions	Wk 1 - Consolidation	Wk 7 -Measurement: Time
Number – addition & subtraction	Wk 2 - Place Value	Wk 8 - Length and Perimeter	Wk 2 - Multiplication and Division	Wk 8 - Number: Fractions	Wk 2 - Number: Decimals	Wk 8 - Geometry: Properties of Shape
Number – multiplication & division	Wk 3 - Place Value	Wk 9 - Length and Perimeter	Wk 3 - Multiplication and Division	Wk 9 - Number: Fractions Number: Decimals	Wk 3 - Number: Decimals	Wk 9 -Geometry: Properties of Shape
Number - fractions	Wk 4 - Place Value	Wk 10 - Multiplication and Division	Wk – 4 Multiplication and Division	ASSESSMENT WEEK	Wk 4 - Measurement: Money	Wk 10 - Geometry: Position and Direction
Geometry	Wk 5 - Addition and Subtraction	ASSESSMENT WEEK	Wk – 5 Multiplication and Division	Wk 11 -Number: Decimals	Wk 5 - Measurement: Money	ASSESSMENT WEEK
Measurement			Measurement : Area			
Statistics	Wk 6 - Addition and Subtraction	Wk 12 - Multiplication and Division	Wk 6 - Number: Fractions	Wk 12 - Number: Decimals	Wk 6 - Measurement: Time	Sports week
Ratio & proportion		Wk 13 - Multiplication and Division				Wk 13 - Consolidation
Algebra						
Key facts	Six times table Nine times table Seven times table		Six times table Nine times table Seven times table		Six times table Nine times table Seven times table	
Recording	Bar model Column method addition & subtraction Grid method multiplication Expanded layout multiplication Compact multiplication Chunking		Bar model Column method addition & subtraction Grid method multiplication Expanded layout multiplication Compact multiplication Chunking		Bar model Column method addition & subtraction Expanded layout multiplication Compact multiplication Chunking for division Bus stop division.	

Year 5						
Number – Number & place value	Number- Place Value	Statistics	Consolidation	Fractions	Consolidation	Geometry - Properties of Shape. Position and Direction
Number – addition & subtraction	Number- Place Value	Statistics Number – Multiplication and Division	Number - Multiplication	Fractions	Number - Decimals	Geometry - Position and Direction
Number – multiplication & division	Number- Place Value	Number – Multiplication and Division	Number – Multiplication and Division	Fractions	Number - Decimals	Converting Units of Measurement.
Number - fractions						
Geometry	Number- Addition and Subtraction	Number – Multiplication and Division	Number – Division	ASSESSMENT WEEK	Number - Decimals	Converting Units of Measurement.
Measurement						

Statistics Ratio & proportion Algebra	Number- Addition and Subtraction	ASSESSMENT WEEK	Fractions	Decimals & Percentages	Geometry - Properties of Shape	Volume
	Number- Addition and Subtraction Statistics	Measurement – Perimeter and Area	Fractions	Decimals & Percentages	Geometry - Properties of Shape	Sports week
		Measurement – Perimeter and Area				Wk 13 - Consolidation
Key facts	Recall all multiplication facts Prime numbers to 19		Recall all multiplication facts Prime numbers to 19		Recall all multiplication facts Prime numbers to 19	
Recording	Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtraction Compact multiplication Bus stop division	

Year 6						
Number – Number & place value Number – addition & subtraction Number – multiplication & division Number - fractions Geometry Measurement Statistics Ratio & proportion Algebra	Wk 1 - Number: Place Value	Wk 7 - Number: Fractions	Wk 1 - Number: Percentages	Wk 7 - Number: Ratio	REVISION	Wk 7 - Consolidation Project 1 White Rose Bakery
	Wk 2 -Number: Addition, Subtraction	Wk 8 - Number: Fractions	Wk 2 - Algebra	Wk 8 - Number: Ratio Statistics	REVSISION	Wk 8 - Consolidation Project 2 White Rose Tours
	Wk 3 - Number: Multiplication and Division	Wk 9 - Number: Fractions	Wk 3 - Algebra	Wk 9 -Geometry: Properties of shape	REVISION	
	Wk 4 - Number: Division	Wk 10 -Number: Fractions	Wk 4 - Measurement: Converting Units	Wk 10 -Geometry: Properties of shape	SATS WEEK	
	Wk 5 Number: Multiplication and Division	Wk 11 - Geometry: Position & Direction	Wk 5 - Measurement: Area, Perimeter & Volume	WK 11 - Geometry: Properties of shape	Wk 5 - Consolidation Project 1 White Rose Bakery	Wk 11 - Consolidation Project 3 White Rose Futures
	SCHOOL JOURNEY	Wk 12 - Number: Decimals	ASSESSMENT & CONSOLIDATION	ASSESSMENT & CONSOLIDATION		Sports week
		ASSESSMENT & CONSOLIDATION				Consolidation Project 3 White Rose Futures
Key facts	Recall all multiplication facts Prime numbers to 19		Recall all multiplication facts Prime numbers to 19		Recall all multiplication facts Prime numbers to 19	
Recording	Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtraction Compact multiplication Bus stop division	

Please refer to the Progression Map to see how concepts develop across the school.

Please refer to Medium term plans for detailed breakdown of weekly content.

Please refer to weekly plans for details of activities and resources being used.