

Mathematics Curriculum: Long Term Planning



At St Joseph's we are following our own individualised curriculum supplemented with a number of schemes including: White Rose, Third Space Learning and Learning by Questions.

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.

2-Year-Old Provision	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
General Themes	All about me	Night and day	Bears	Colours	Transport	Farm life
	to count confidently, de frequent and varied op counting - children will curriculum includes rich c	velop a deep understanding portunities to build and app I develop a secure base of k opportunities for children to ren develop positive attitud	of the numbers to 6, the re ly this understanding - such nowledge and vocabulary fr develop their spatial reas les and interests in mathen	op the necessary building blood elationships between them as using manipulatives, income which mastery of mathon oning skills across all areas of natics, look for patterns and ice and not be afraid to mak	and the patterns within tho luding small pebbles and te ematics is built. In addition, of mathematics including sh I relationships, spot connec	se numbers. By providing ns frames for organising it is important that the ape, space and measures.
	Learning objectives: I can combine objects like stacking blocks and cups. I can put objects inside others and take them out again. I can take part in finger rhymes with numbers.	Learning objectives: I react to changes of amounts in a group of up the three items. I am developing counting-like behavior, such as making sounds, pointing.	Learning objectives: I can compare amounts saying 'lots'. 'more' or 'same'. I can climb and squeeze into different spaces. I can build with a range of resources.	Learning objectives: I can count in everyday contexts, sometimes skipping numbers. I can complete an inset puzzle. I can compare sizes, using gestures and language such as 'bigger', 'little' or 'small'	Learning objectives: I can build more complex models with a range of resources. I can compare height and length using gestures and language such as ' high', 'low' or 'tall'. I can arrange things in patterns.	Learning objectives: I can compare the weight of an items using gestures and language such as 'heavy'. I can notice patterns in the environment.
	Learning experiences will include: Free play with a range of objects, daily rhyme time to include finger action rhymes	Learning experiences will include: Adults modelling changes in amounts through play (e.g. adding more bricks/eating up food), adults model counting sequence in a variety of meaningful contexts	Learning experiences will include: Adults describing children's position using positional language, construction play using large blocks and boxes, adults modelling mathematical language during play in a variety of meaningful contexts	Learning experiences will include: Adults model counting sequence in a variety of meaningful contexts, access to inset puzzles, adults modelling mathematical language during play in a variety of meaningful contexts, access to a range of objects in different sizes	Learning experiences will include: Construction play, adults modelling mathematical language during play in a variety of meaningful contexts, access to a range of objects in different sizes/heights, loose part play	Learning experiences will include: Construction play, adults modelling mathematical language during play in a variety of meaningful contexts, access to a range of objects in different sizes/heights, loose part play





Nursery	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
General Themes	Me and My Family	Megabeasts	Superheros	Food Glorious Food	Adventures Under the Sea	Watch me grow		
	Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 6, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.							
	Learning objectives: I can make simple patterns. I can sort shapes – are shapes the same or different? I can recognise number 1. I can recognise number 2. I can recognise number 3.	Learning objectives: I can order the numbers 1 – 3. I can categorise items by big or small. I can use language of capacity such as full or empty. I can categorise an item as tall or short. I can subitise to 4.	Learning objectives: I can use the cardinal method to count to 3. I can write the numbers 1, 2 and 3. I can compare amounts from 1 – 3.	Learning objectives: I can sort 2D shapes and name them. I can count to 5. I can compare amounts up to 5.	Learning objectives: I can count to 10. I recognise different ways that 5 can be made (composition of number). I can know the difference between 3D and 2D shapes. I can create a complex pattern.	Learning objectives: I can identify if something is happening in the past, present or future. I can explore shape, space, pattern and measure. I can use the cardinal method to count to 10.		





	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
General Themes	Me and my Community	Time to celebrate	Space	Around the World	Animals and their habitats	Tell a Tale		
	Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently , develop a deep understanding of the numbers to 10 , the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives , including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics , look for patterns and relationships , spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.							
Number Numerical Patterns	Learning Objectives: I can subitise within 3. I am able to count slowly and carefully using the cardinal method. I know that numbers are made of 1s. I know that 3 and 4 can be made of different numbers. I can subitise objects and sounds. I can compare amounts just by looking. I can use language of comparison such as more than and less than.	Learning Objectives: I can recognise 5 in a range of different patterns. I can compare sets by matching items that are the same. I can compare amounts using language of more than, fewer than and equal. I can use the 'part, part, whole' method to make numbers. I can make 3, 4 and 5 using the 'part, part, whole' method. I can match numbers to quantities within 10. I can verbally count beyond 20.	Learning Objectives: I can subitise within 4 5 with a focus on die patterns. I can see that each number is one more than the previous number. I know number bonds to 5. I can make numbers 6 and 7 using the '5 and a bit' method. I can compare sets and make equal and unequal groups.	Learning Objectives: I can use the 'staircase' pattern to order numbers. I can order numbers to 8. I can use language of less than. I can make the number 7 in a variety of ways. I know than some numbers are made of two equal parts – doubles. I can sort numbers according to attributes – odd and even.	Learning Objectives: I can count larger sets and things that cannot be seen. I can subitise to 6 – including in structured arrangements. I can make 8 and 9 using the '5 and a bit' method. I am learning my number bonds to 10. I can make comparisons linked to ordinality.	Learning Objectives: I can confidently subitise to 5. I am learning how to use a rekenrek. I can automatically recall number bonds to 5. I know my number bonds to 10. I can explore number patterns such as odd and even and doubles.		





Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number: Place Value	Pupils will have an opportunity to consolidate the Early Learning Goals and continue to explore the	Wk 8 – Addition & subtraction – number bonds	Wk 1 – Place Value (within 50)	Wk 7 - Measurement - Length & height	Wk 1 – Number – Place Value (Within 100)	Wk 7 - Number – Fractions
Number: Addition & Subtraction Number: Multiplication &	composition of numbers within 10, and the position of these numbers in the linear number system. Pupils will:	Wk 9 – Addition & subtraction – subtraction	Wk 2 - Place Value (within 50)	Wk 8 - Measurement — Mass & volume	Wk 2 - Number — Place Value (Within 100)	Wk 8 - Measurement - Money
Division Number: fractions	 subitise within 5, including when using a rekenrek, and re-cap the composition of 5 	Wk 10 – subtraction	Wk 3 - Addition and subtraction	Wk 9 – Measurement – Mass & volume	Wk 3 - Multiplication and division	Wk 9 - Measurement — Time
Number: Decimals & Percentages	 develop their understanding of the numbers 6 to 9 using the '5 and a bit' structure 	Wk 11 – Place value within 20	Wk 4 - Addition and subtraction	Week 10 – Geometry – 2D & 3D shapes	Wk 4 - Multiplication and division	Wk 10 - Measurement – Time
Geometry Measurement	 compare numbers within 10 and use precise mathematical language when doing so 	Wk 12 – Place value within 20	Wk 5 – Addition and subtraction	Wk 11 - Geometry — position and direction	Wk 5 - Multiplication and division	Wk 11 - Assessment/interventions
Statistics Ratio & Proportion	 re-cap the order of numbers within 10 and connect this to '1 more' and '1 less' than a given number 	Wk 13 – Assessment/targeted interventions.	Wk 6 – Measurement - Length & height	Wk 12 – Assessment / targeted interventions	Wk 6 – Number – Fractions	Wk 12 - Consolidation
Algebra	• explore the composition of each of the numbers 6, 8, and 10	Wk 14 Consolidation				
Key facts	Year 1 will follow Mastering Number in Autumn 1 Refer to KIRF's document on school website		Refer to KIRF's document on school website		Refer to KIRF's document on school website .	
Recording	Bar models Number lines – jumps of one		Bar models Number lines – jumps of whole nu	Bar models Number lines – jumps of tens and ones		ones





Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Wk 1 - Number: Place value	Wk 8 – Addition and subtraction	Wk 1 Measurement: Money	Wk 7 – Measurement: Length and height	Wk 1 - Number: Fractions	Wk 7 - Geometry: Position and directions
Number: Place Value						
Number: Addition & Subtraction Number: Multiplication &	Wk 2 - Number: Place value	Wk 9 - Addition and subtraction	Wk 2 - Measurement: Money	Wk 8 - Measurement: Length and height	Wk 2 - Number: Fractions	Wk 8 - Geometry: Position and directions
Division Number: fractions	Wk 3 - Number: Place value	Wk 10 - Addition and subtraction	Wk 3 - Number: Multiplication and division	Wk 9 – Measurement: Mass, capacity and temperature	Wk 3 - Number: Fractions	Wk 9 – Statistics
Number: Decimals & Percentages	Wk 4 - Number: Place value	Wk 11 - Measurement – Shape	Wk 4 - Number: Multiplication and division	Measurement: Mass, capacity and temperature	Wk 4 - Measurement: Time	Wk 10 - Statistics
Geometry Measurement	Wk 5 - Number: Addition and subtraction	Wk 12 - Measurement - money	Wk 5 - Number: Multiplication and division	Wk 11 - Mass, capacity and temperature	Wk 5 - Measurement: Time	Wk 11 - Consolidation
Statistics	Wk 6 Number: Addition and subtraction	Wk 13 – Assessment/interventions	Wk 6 - Number: Multiplication and division	Wk 12 – Assessment/interventions	Wk 6 - Measurement: Time	Wk 12 – Assessment/interventions
Ratio & Proportion Algebra	Wk 7 Consolidation	Wk 14 Consolidation				
Key facts	Refer to KIRF's document on school website		Refer to KIRF's document on school website		Refer to KIRF's document on school website	
Recording	Bar models Number lines Partitioning		Bar models Number lines Partitioning		Bar models Number lines Partitioning	





Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number: Place Value	Wk 1 - Place Value	Wk 8 - Addition and Subtraction	Wk 1 - Multiplication and Division	Wk 7 – Fractions	Wk 1 - Measurement: Mass and capacity	Wk 7 - Measurement: Time
Number: Addition & Subtraction	Wk 2 - Place Value	Wk 9 - Multiplication and Division	Wk 2 - Multiplication and Division	Wk 8 - Fractions	Wk 2 - Measurement: Mass and capacity	Wk 8 - Geometry: Properties of Shape
Number: Multiplication & Division	Wk 3 - Place Value	Wk 10 - Multiplication and Division	Wk 3 - Multiplication and Division	Wk 9 – Fractions	Wk 3 - Measurement: Money	Wk 9 - Geometry: Properties of Shape
Number: fractions Number: Decimals & Percentages	Wk 4 - Addition and Subtraction	Wk 11 - Multiplication and Division	Wk 4 - Multiplication and Division	Wk 10 - Fractions	Wk 4 - Measurement: Money	Wk 10 - Statistics
Geometry Measurement	Wk 5 - Addition and Subtraction	Wk 12 - Multiplication and Division	Wk 5 – Measurement: Length and perimeter	Wk 11 - Fractions	Wk 5 – Measurement: Time	Wk 11 - Statistics
Statistics Ratio & Proportion	Wk 6 - Addition and Subtraction	Wk 13 — Assessment/interventions	Wk 6 – Measurement: Length and perimeter	Wk 12 - Measurement: Mass and capacity	Wk 6 – Measurement: Time	Wk 12 – Assessment/intervention
Algebra	Wk 7 Consolidation	Wk 14 Consolidation				
Key facts	Refer to KIRF's document on school website		Refer to KIRF's document on school website		Refer to KIRF's document on school website	
Recording	Bar models Number lines Expanded column method addition & subtraction Decomposition addition Multiplication grid method		Bar models Number lines Expanded column method addition Decomposition addition & subtract 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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number: Place Value	Wk 1 - Place Value	Wk 8 - Addition and Subtraction	Wk 1 - Number: Multiplication and division	Wk 7 – Fractions	Wk 1 - Number: Decimals	Wk 7 – Measurement: Consolidation of time
Number: Addition & Subtraction Number: Multiplication &	Wk 2 - Place Value	Wk 9 – Measurement: Area	Wk 2 - Multiplication and Division	Wk 8 - Fractions	Wk 2 - Number: Decimals	Wk 8 - Geometry: Position and direction
Division Number: fractions	Wk 3 - Place Value	Wk 10 – Number: Multiplication and division	Wk 3 - Multiplication and Division	Wk 9 – Fractions	Wk 3 - Number: Decimals	Wk 9 - Geometry: Position and direction (consolidation)
Number: Decimals & Percentages	Wk 4 - Place Value	Wk 11 - Number: Multiplication and division	Wk 4 - Measurement: Length and perimeter	Wk 10 – Number: Decimals	Wk 4 - Measurement: Money	Wk 10 – Geometry: Shape
Geometry Measurement	Wk 5 - Addition and Subtraction	Wk 12 - Number: Multiplication and division	Wk 5 - Measurement: Length and perimeter	Wk 11 – Number: Decimals	Wk 5 – Measurement: Money	Wk 11 – Geometry: Shape
Statistics Ratio & Proportion	Wk 6 - Addition and Subtraction	Wk 13 – Assessment/intervention	Wk 6 - Fractions	Wk 12 - Number: Decimals Assessment	Wk 6 – Measurement: Time	Wk 12 – Statistics
Algebra	Wk 7 Consolidation	Wk 14 – Consolidation				
Key facts	Refer to KIRF's document on school website		Refer to KIRF's document on school website Refer to KIRF's document on school w		website	
Recording	Bar model Column method addition & subtraction Grid method multiplication Expanded layout multiplication Compact multiplication Chunking		Bar model Column method addition & su Grid method multiplication Expanded layout multiplicatio Compact multiplication Chunking	on Expanded layout multiplication		





Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number: Place Value	Wk 1 - Number- Place Value	Wk 8 - Number- Multiplication and division	Wk 1 - Number- Multiplication and division	Wk 7 - Number – Decimals and percentages	Wk 1 - Geometry – Properties of shape	Wk 7 – Measurement: Converting Units of Measurement.
Number: Addition & Subtraction Number: Multiplication &	Wk 2 - Number- Place Value	Wk 9 – Number- Multiplication and division	Wk 2 - Multiplication and division	Wk 8 - Number – Decimals and percentages	Wk 2 - Geometry – Position and direction	Wk 8 – Measurement: Converting Units of Measurement
Division Number: fractions Number: Decimals &	Wk 3 - Number- Place Value	Wk 10 – Number – Fractions	Wk 3 - Multiplication and division	Wk 9 – Measurement – Perimeter and area	Wk 3 - Geometry – Position and direction	Wk 9 – Measurement: Volume
Percentages Geometry	Wk 4 - Number- Addition and Subtraction	Wk 11 - Number – Fractions	Wk 4 - Number – Fractions	Wk 10 – Measurement – Perimeter and area	Wk 4 – Number: Decimals	Wk 10 – Number: Negative numbers
Measurement Statistics Ratio & Proportion	Wk 5 - Number- Addition and Subtraction	Wk 12 - Number – Fractions	Wk 5 - Number – Fractions	Wk 11 - Geometry – Properties of shape	Wk 5 – Number: Decimals	Wk 11 – Statistics
Algebra	Wk 6 - Number- Multiplication and division	Wk 13 – Assessment/intervention	Wk 6 - Number – Decimals & Percentages	Wk 12 – Geometry – Properties of shape	Wk 6 – Number: Decimals	Wk 12 – Statistics/assessment
	Wk 7 Consolidation	Wk 14 – Number - Fractions				
Key facts	Refer to KIRF's document on school website		Refer to KIRF's document on school website		Refer to KIRF's document on school website	
Recording	Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtractio Compact multiplication Bus stop division	Bar models Column addition & subtraction Compact multiplication Bus stop division		n





Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Number: Place Value Number: Addition &	Wk 1 - Number: Place Value	Wk 8 – Number: Fractions	Wk 1 - Number: Decimals	Wk 7 - Measurement: Area, perimeter and volume	Wk 1 – Algebra	Wk 8-11 – Consolidation Project 2 White Rose Tours
Subtraction Number: Multiplication & Division	Wk 2 - Number: Place Value	Wk 9 – Number: Fractions	Wk 2 - Number: Decimals	Wk 8 - Measurement: Area, perimeter and volume	Wk 2 – Algebra	
Number: fractions Number: Decimals &	Wk 3 – Number: Addition, subtraction, multiplication & division	Wk 10 - Number: Fractions	Wk 3 - Number: Decimals	Wk 9 - Geometry: Shape	Wk 3 - Consolidation	
Percentages Geometry Measurement	Wk 4 – School Residential	Wk 11 -Number: Fractions	Wk 4 - Number: Number: Fractions, decimals and percentages	Wk 10 - Geometry: Position & Direction	Wk 4 - SATS WEEK	
Statistics Ratio & Proportion	Wk 5 Number: Addition, subtraction, multiplication & division	Wk 12 - Measurement: Converting units and assessment	Wk 5 – Number: Fractions, decimals and percentages	WK 11 - Statistics	Wk 5-7 - Consolidation Project 1 White Rose Bakery	
Algebra	Wk 5 Number: Addition, subtraction, multiplication & division	Wk 13 - Ratio	Wk 6 – Number: Fractions, decimals and percentages	WK 12 – Statistics/assessment		Wk 12 – Consolidation
	Wk 5 Number: Addition, subtraction, multiplication & division	Wk 14 – Ratio				
Key facts	Refer to KIRF's document on school website		Refer to KIRF's document on school	website	Refer to KIRF's document on school	website
Recording	Bar models Column addition & subtraction Compact multiplication Bus stop division		Bar models Column addition & subtraction Compact multiplication Bus stop division	n	Bar models Column addition & subtraction Compact multiplication Bus stop division	n