



St. George's Catholic Primary School



EYFS Mathematics Progression of Knowledge & Skills

Statutory Guidance from the EYFS Framework for Mathematics:

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.

At St. George's, Nursery children have 1 explicit mathematics teaching input per week, Reception children have 3 explicit teaching inputs per week, and both classes have mathematics reinforced throughout provision every day.

Mathematics Early Learning Goals:

Number ELG

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns ELG

Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Number Progression of Knowledge and Skills 2-3years <i>Children will: begin to develop foundational mathematical concepts through everyday interactions and play.</i> <i>This period is crucial for introducing and reinforcing numerical patterns.</i>
--

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>	<u>End of Stage</u>
-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	---------------------

*Shows awareness of quantity changes (“more juice”, “gone”). *Begins to notice when one group is bigger/smaller. *Fills and empties containers repeatedly, observing “full/empty”. *Use “one” and “two” in context, often out of sequence. *Begins to sort objects by obvious attributes (colour, size, type). *Says some numbers in the right order (ordinality)	*Joins in with counting songs and games, repeating number words. *Begin to count objects up to 3 (though may skip or double count). *Match one object to one action (posting, feeding toys, giving one item). *Use “another” and “more” to request additional items. *Recognise one as a consistent quantity (“one cracker”, “one car”).	*Begins to recite numbers up to 5 with increasing accuracy. *Use counting for a purpose (e.g., “three cups for the dolls”). *Understand and use “more”, “same”, and “another” correctly. *Compares groups using language of size and quantity. *Begin to group or sort objects based on shared attributes (shape, colour).	*Notifies that a total changes when something is added or taken away. *Begin to show simple understanding of simple addition/subtraction in play (“I had two, now I’ve got one”). *Counts and check results when things are combined or shared. *Starts to represent numbers with fingers, marks or objects. *Enjoys making small collections (e.g., “three cars for the garage”).	*Begin to count on their fingers. *Recognises some small quantities without counting e.g. one car, one ball etc. *Begins to understand the order or numbers (1 comes before 2, etc). *Begins to show preference for counting accurately and checking. *Talks about everyday numbers (door numbers, buses, age).	*Confidently counts to 5 (sometimes beyond) *Counts with practitioner *Uses number language spontaneously in play (“I need three plates”). *Begins to solve simple number problems in play (sharing, adding one more). *Starts to represent numbers with fingers, marks, or small groups. *Sings counting down and counting up songs and rhymes. *Begin to count actions, sounds or objects with support.	*Understands that numbers represent quantities. *Begins to use number words with meaning. *Compares groups using simple mathematical language. *Counts and matches in life contexts.
--	---	---	---	--	--	--

NURSERY (3-4 YEARS)									
---------------------	--	--	--	--	--	--	--	--	--

Progression of Knowledge and Skills

	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>	<u>End of Stage</u>
White Rose Maths EYFS Coverage for the Year:	Comparison 1 More than, fewer than, same Shape, space and measure 1 Explore and build with shapes and objects Pattern 1 Explore repeats Counting 1 Hear and say number names Counting 2 Begin to order number names	Subitising 1 I see 1, 2, 3 Pattern 2 Join in with repeats Shape, space and measure 2 Explore position and space Subitising 2 Show me 1, 2, 3 Counting 3 Move and label 1, 2, 3	Shape, space and measure 3 Explore position and routes Pattern 3 Explore own first patterns Counting 4 Take and give 1,2,3 Shape, space and measure 4 Match, talk, push and pull Subitising 3 Talk about dots	Comparison 2 Compare and sort collections Pattern 4 Lead on own patterns Shape, space and measure 5 Start to puzzle Pattern 5 Making patterns Together Subitising 4 Make games and actions	Counting 5 Show me 5 Pattern 6 My own pattern Counting 6 Stop at 1,2,3,4,5 Comparison 3 Match, sort, compare	Consolidation of Children's Learning	*Counts confidently beyond 5 and subitise to 5. *Understands composition of numbers within 5. *Uses the language of comparison, addition and subtraction in play. *Recognises simple patterns, doubles, and fair sharing. *Begins to represent numbers with marks or numerals. *Talks about and applies mathematical ideas in everyday contexts.
Key Vocabulary	More, fewer, few, same, 'there are a lot of...', 2d and 3d shape names, number names, 'I can see' 'I can hear', pattern, 'I am using', 'this is...' big/small,	Number names,, pattern, position words; on, under, between, through, over, 'I can see' 'I can how' 'there are 1/2/3'	Number names, take, give, sort, collection, large, small, 'I can see', 'this collection has...' 'there are...dots', 'I can see', 'I have 1/2/3'	Number names, 'I can see', 'now there are', count, 'I can see', 'there are', 'I can hear', 'I need 1/2/3', pattern, 'I need a...' 'I can see',	Match, sort, same, different, more, less, count, stop, number names, 'there are', pattern, now, first, next, then		

	'count with me' 'say with me'		'there are', 'I have', pattern.	'I have used', 'this pattern is...'			
Implementation (in addition to Maths whole class input)	Hunt for collections of large/small amounts of objects. Compare and talk about large/small amounts of objects. Make collections of objects that are the same. Insert puzzles/shape sorters. Join children as they explore shapes/blocks in construction. Listen to/ join in with repeats in songs and stories. Join children in construction area to build roads and towers. Model and encourage use of loose parts to make simple line patterns. Listen for and say number names in songs and rhymes in order working forwards and backwards. Count actions and use fingers numbers during songs and rhymes. Draw	Join in with repeated actions, words in songs and stories. Encourage children to say what happens 'next' in familiar routines. Use loose parts to recreate patterns. Explore/ sort a variety of shapes and objects. Sing songs/play games exploring positional language. Use finger numbers to show/identify 1, 2, 3 in songs and stories. Outdoor games; jumping/hopping while saying counting words. Use stories such as Goldilocks to explore counting up to 3 objects. Games matching numeral to quantity up to 3. Make arrangements /pictures with numicon. Explore more complex insert puzzles. Positional language games.	Go on a pattern walk. Peg boards,nail and hammer boards. Identify patterns and shapes in stories such as Cave Baby. Model taking/giving up to 3 objects in provision during snack etc. Encourage children to take/give up to 3 objects during simple games. Use stories to model counting up to 3 objects using 1-1 correspondence. Make 'magic potions' asking children to count and add up to 3 objects. Shape matching games. Join construction play modelling making simple arrangements; bridges/tunnels etc. Follow simple routes using positional language instructions. Push	Encourage children to lead songs and rhymes. Add art work with simple patterns for children to recreate when painting. Encourage children to create repeating patterns with mark making/paint resources to include circles, grids and sun like shapes. Shape match puzzles, jigsaws, object to picture matching. Object to shadow matching. Clap in time to the beat when singing. Create large movement patterns with ribbons. Introduce patterns for children to copy/continue. Dice games using a large 1 to 3 dice. Copy sets of sounds. Represent sounds using fingers. Move props to and back from 5 in songs and	Create own patterns using beads etc. Correct errors in modelled AB patterns. Use construction resources to make enclosures for animals. Sing a variety of songs exploring counting to 5 in different ways. Numeral/quantity matching. Verbally count to given numbers. Model making marks to represent numbers. Make sets of objects by matching. Play 'find my match' games. Matching games such as pairing socks based on colour/pattern.		

	attention to 1, 2, 3 in pictures, books and provision. Share stories such as The Three Billy Goats, The Three Little Pigs.	Obstacle courses encouraging movement through different positions; Use simple stories to explore and follow simple routes, eg: Rosie's Walk.	and pull blocks together to build walls. Introduce and play games using dot patterns with up to 3 dots. Make collections of small and large objects that are the same. Encourage children to talk about their own collections.	rhymes. Show finger numbers to 5 during songs and rhymes. Model counting to 5 using 1-1 correspondence. Match numeral to quantity during songs and rhymes.			
--	--	--	--	--	--	--	--

RECEPTION (4-5 YEARS)
Progression of Knowledge and Skills

	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>	<u>ELG</u>
White Rose Maths EYFS Coverage for the Year:	<i>Getting to Know you:</i> <i>Build trusting relationships - Ensure children have good levels of well-being and involvement to be ready to learn.</i>	Circles and Triangles Identify and name circles and triangles Compare circles and triangles Shapes in the environment Describe position	Alive in 5 Introduce zero Find 0 to 5 Subitise 0 to 5 Represent 0 to 5 Mass and Capacity Compare mass Find a balance	Building 9 and 10 Find 9 and 10 Compare numbers to 10 Represent 9 and 10 Conceptual subitising to 10 Explore 3D shape	To 20 and Beyond Build Numbers beyond 10 (10 – 13) Continue patterns beyond 10 (10 -13) Build numbers beyond 10 (14 – 20) How Many Now?	Sharing and grouping Explore sharing Explore grouping Even and odd sharing Play with and build doubles	*Have a deep understanding of numbers to 10, including the composition of each number.

	Match, Sort and Compare Matching objects Match pictures and objects Identify a set Sort objects to a type Exploring sorting techniques Create sorting rules Compare amounts Talk about Measures and Patterns Compare size Compare mass Compare capacity Explore simple patterns Copy and continue simple patterns Create simple patterns It's me 1,2,3! Find 1, 2 and 3 Subitise 1, 2 and 3 Represent 1, 2 and 3 1 more -1 less Composition of 1, 2 and 3	1, 2, 3, 4, 5 Find 4 and 5 Subitise 4 and 5 Represent 4 and 5 1 more 1 less Composition of 4 and 5 Composition of 1 – 5 Shapes with 4 sides Identify and name shapes with 4 sides. Combine shapes with 4 sides Shapes in the environment	Explore capacity Compare capacity Growing 6,7,8 Find 6,7,8 Represent 6,7,8 1 more 1 less Composition of 6, 7, 8 Length, Height and Time Explore Length Compare Length Explore Height Compare Height Talk about time Order and sequence time	Recognise and name 3D shapes Find 2D Shapes within 3D shapes Use 3D shapes for tasks 3D shapes in the environment	Add more How many did I add? Take away How many did I take away? Manipulate, compose and decompose Select shapes for a purpose Rotate shapes Manipulate shapes Explain shape arrangements Compose shapes Decompose shapes Copy 2-D shape pictures Find 2-D shapes within 3-D shapes	Visualise, build and map Identify units of repeating patterns Create own pattern rules Explore own pattern rules Replicate and build scenes and constructions Visualise from different positions Describe positions Give instructions to build Explore mapping Represent maps with models Create own maps from familiar places Create own maps and plans from story situations Make connections Deepen understanding - Patterns and relationships - Consolidation	*Subitise (recognise quantities without counting) up to 5. *Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts
Key Vocabulary	Measure, Wider Narrow, Compare	Number, None, After, Count,	Zero, Height, Long, Short Weight,	Characteristics 3d shapes Cuboids	Add, Plus, Altogether, Total	Double Half Twice as many Equal	

	Longer, Shorter, length Seasons, Time <i>Quicker Slower Earlier Later Before After, First Next Today Yesterday Tomorrow Morning Afternoon Evening Day, Week Hour Minutes</i>	Subitise, Order, Compare, Forwards, Backwards, Numerals, Digit, One more, One less Many, Equal to/same as, More than, Less than (Fewer), 2d shapes, Rectangle, Square Circle, Triangle,	Capacity Heavy/light, Heavier than Lighter than Full/empty More than Less than Half/half full, Yesterday, Tomorrow	Cubes Cone Spheres Curved Straight Flat	Take away/minus Number bonds Part Whole, Digit, Over Under, Between Around, Through On, Into, Next to Behind Beneath Order, Repeat, Patterns, On top of	Unequal Share Group Odd Even	
Implementation (in addition to Maths whole class input)	Using a visual timetable to explain the day, exploration using items in continuous provision eg pinecones, conkers, stones etc, singing number rhyme songs daily including props and actions – fingers.	Model counting objects correctly and incorrectly. Count my claps. Count how many coins in the pot with eyes closed. Dot cards to subitise with. 2d shapes in provision and around the classroom for children to find Songs with numbers to 5	Dot cards to subitise with, number lines in the classroom for children to model one more and one less, starter activities to recap prior learning. Capacity water tray exploration, different types of capacity and measuring in provision eg. Rice. Blocks/lego to measure each other's height.	Dot cards to subitise with, tens frames with numbers to 8 for children to use, exploration of each number – working systematically to find all the ways to make each number. 2D and 3D shapes in provision.	Continue to access mathematical continuous provision – tens frames, numicon, using Subitising dot plates and images, number bond songs and using fingers to find answers.	Continue to access mathematical continuous provision – tens frames, numicon, using Subitising dot plates and images, number bond songs and using fingers to find answers.	

The Reception Year provides the foundation for mathematical skills the children will build upon in Year one.

Y1 Progression and Expectations

Number and place value (within 20): use the language of: equal to, more than, less than (fewer), most, least Identify and represent numbers using objects and pictorial representations including the number line.

Addition and subtraction (within 20) (addition and subtraction Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) sign. Read and write numbers from 1 to 20 in numerals and words.

Number and place value (within 100): Begin to recognise the place value of each digit in a two-digit number (tens, ones)

Fractions: Recognise, find and name a half as one of two equal parts of an object, shape or quantity

Fractions: Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Multiplication and Division: count in multiples of twos, fives and tens solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations

Comparing & Estimating: compare, describe and solve practical problems for: lengths and heights , mass/weight, time

Number Bonds: Represent and use number bonds and related subtraction facts within 20 Shape: Recognise and name common 2-D and 3-D shapes,

Positional Language: Describe position, direction and movement, including half, quarter and three quarter turns

Money: Recognise and know the value of different denominations of coins and notes

Time: Tell the time to the hour and half past the hour, recognise and use language relating to dates, including days of the week, weeks, months and years