EYFS Mathematics Curriculum

EYFS Mathematics Educational Programme	Reference to KS1 Mathematics Programme of Study	Links to our St. Gabriel's EYFS Curriculum Goals
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.	The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.	To become a **Maths Magician** who has a good understanding of to 10

Progression of learning/skills in the area of Mathematics

Learning/ skills prior to Reception

We use the White Rose Maths Scheme to teach Mathematics in EYFS and throughout the school

Children will be assessed as to whether they are on track with WRM scheme throughout the year

At the end of EYFS, Children will be assessed against the two Mathematics ELGs which are 'Number' and 'Numerical Patterns'. There is no ELG for Measure, Shape and Spatial Thinking

Number:

Use number names in play

Use 1-1 correspondence to count up to 5 objects

Give up to 3 objects when asked and stop when you have enough

Recognise some numbers of significance e.g. 3, 4 and 5

Identify which group has more and which group has fewer

Know that the last number reached when counting tells us how many there are

Solve some mathematical problems up to 5

Measure, Shape and Spatial Thinking:

Identify most/all colours

Use words such as 'big', 'small' and 'heavy' in play

Make comparisons between objects e.g. size, length, weight and capacity

Identify some 2D shapes

End of Autumn

Block 1 – Match, sort and compare (2 weeks)
Match objects and pictures
Match/identify a set
Sort objects to a type
Explore sorting techniques
Create sorting rules
Compare amounts

Block 2 – Talk about measure and patterns (2 weeks)
Compare size
Compare mass
Compare capacity
Explore simple patterns
Copy and continue patterns
Create simple patterns

Block 3 – It's me 1, 2, 3 (2 weeks)
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

Block 4 – Circles and triangles (1 week)
Identify and name circles and triangles
Compare circles and triangles
Shapes in the environment
Describe position

Block 5 – 1, 2, 3, 4, 5 (2 weeks)
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

Block 6 – Shapes with 4 slides (1 week)
Identify and name shapes with 4 sides
Combine shapes with 4 sides
Shapes in the environment
My day and night

End of Spring

Block 1 – Alive in 5! (2 weeks)
Introduce zero
Find 0-5
Subitise 0-5
Represent 0-5
1 more
1 less
Composition
Conceptual subitising to 5

Block 2 – Mass and capacity (1 week)
Compare mass
Find a balance
Explore capacity
Compare capacity

Block 3 – Growing 6, 7, 8 (2 weeks)
Find 6, 7 and 8
Represent 6, 7 and 8
1 more
1 less
Composition of 6, 7 and 8
Make pairs – odd and even
Double to 8 (find a double)
Double to 8 (make a double)
Combine two groups
Conceptual subitising

Block 4 – Length, height and time (2 weeks)
Explore length
Compare length
Explore height
Compare height
Talk about time
Order and sequence time

Block 5 – Building 9 and 10 (3 weeks)
Find 9 and 10
Compare numbers to 10
Represent 9 and 10
Conceptual subitising to 10
1 more
1 less
Composition to 10
Bonds to 10 (2 parts)
Make arrangements of 10
Bands to 10 (3 parts)
Doubles to 10 (find a double)
Doubles to 10 (make a double
Explore even and off

Block 6 – Explore 3-D shapes (2 week)
Recognise and name 3-D shapes
Find 2-D shapes within 3-D shapes
Use 3-D shapes in the environment
Identify more complex patterns
Copy and continue patterns
Patterns in the environment

End of Summer

Block 1 – To 20 and beyond (2 weeks)
Build numbers beyond 10 (10-13)
Continue patterns beyond 19 (10-13)
Build numbers beyond 10 (14-20)
Continue patterns beyond 10 (14-20)
Verbal counting beyond 20
Verbal counting patterns

Block 2 – How many now? (1 week)
Adding more
How many did I add?
Take away
How many did I take away?

Block 3 – Manipulate, compose and decompose (2 weeks)
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

Block 4 – Sharing and grouping (2 weeks)
Explore sharing
Sharing
Explore grouping
Grouping
Even and odd sharing
Play with and build doubles

Block 5 – Visualise, build and map (3 weeks)
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

Block 6 – Make connections (1 week)
Deepen understanding
Patterns and relationships

Number ELG

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

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

There is no ELG for Measure, Shape and Spatial Thinking

Essential learning/skills prior to Year 1

Number

Number and Place Value:
Secure understanding of numbers to 10, representing numbers up to10 in different ways and using language to compare numbers/quantities/pictures Say and order ordinal number to 5

Addition and subtraction:
Linking addition and subtracting to the part-part-whole model and to be able to understand that addition is getting bigger and subtracting is getting smaller

Multiplication and Division:
Know that multiplication is repeated addition and that division is sharing

Fractions:
Understanding the concept of whole and half

Shape, Space and Measure

Measurement:
Use appropriate language to compare length, weight, capacity and time

Geometry - Properties of shapes:
Name circle, triangle, square and rectangle and describe their properties to help group shapes. To begin to know what 3D shapes look like and that they are different to 2D shapes

Geometry - Position and direction:
Understand and use positional language (prepositions) beginning to use the words 'left and 'right'