



Progression of learning/skills in the area of Mathematics.

Learning	Nursery skills	End of Autumn Term:	End of Spring Term	End of Summer Term	ELG	Essential Learning Skills / Prior to Year 1
<p>We use the White Rose Maths Scheme to teach Mathematics in EYFS and throughout the school.</p> <p>Each phase contains the teaching of Number and Measure, Shape and Spatial Thinking</p> <p>Children will be assessed as to whether they are on track with WRM scheme throughout the year</p> <p>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</p>	<p>Number: Use number names in play</p> <p>Use 1-1 correspondence to count up to 5 objects</p> <p>Give up to 3 objects when asked and stop when you have</p> <p>Recognise some numbers of significance e.g. 3, 4 and 5</p> <p>Identify which group has more and which group has fewer</p> <p>Know that the last number reached when counting tells us how many there are</p> <p>Solve some mathematical problems up to 5</p> <p>Measure, Shape and Spatial Thinking:</p> <p>Identify most/all colours</p> <p>Use words such as 'big', 'small' and 'heavy' in play</p> <p>Make comparisons between objects e.g. size, length, weight and capacity</p> <p>Identify some 2D shapes</p> <p>Can make comparisons to objects relating</p>	<p>Phase 1 – Just Like Me</p> <p>Match two objects or pictures Sort by colour, size, shape, object and more Identify a group that has more/fewer Use the words 'more' and 'fewer' to compare two groups Say when two groups have the same/equal amount Make comparisons of size, mass and capacity using mathematical language Complete an ABAB pattern Create own ABAB pattern Find mistakes in patterns</p> <p>Phase 2 – It's Me 123!</p> <p>Count up to 3 objects using 1-1 correspondence Recognise numerals 1, 2 and 3 Make representations of 1, 2 and 3 using a variety of objects and some mathematical equipment Make comparisons of numbers 1, 2 and 3 using mathematical language Begin to understand that numbers are made up of smaller numbers e.g. 3 can also be made using 2 and 1 Count and subitise sets of objects/pictures Identify a circle and a triangle Know that a circle has 1 curved side and a triangle has 3 straight sides Find circles and triangles in the environment Know that triangles of different sizes and orientations are still triangles Understand and use positional language to describe position</p> <p>Phase 3 – Light and Dark</p> <p>Count on and back to 4/5 Count and subitise sets of 4/5 objects/pictures Make a collection of 4/5 objects and know when to stop when they have enough Match numbers names to numerals and quantities Use mark making to represent numbers to 5 Represent numbers to 5 on a 5 frame Know that if a 5 frame is full then there are 5 Join in with number songs with a focus of 5 Predict how many there will be when one more is added or taken away Understand the link between counting forwards and the 1 more pattern Understand the link between counting backwards and the 1 less rule Identify a square and a rectangle Know that squares and rectangles have 4 straight sides and 4 corners Recognise these shapes in the environment Build own squares and rectangles Know that rectangles of different sizes/orientations are still rectangles and square of different sizes/orientations are still squares Know and explain the difference between a square and rectangle Order key events in routines Use language such as 'day', 'night', 'morning', 'before',</p>	<p>Phase 4 – Alive in 5!</p> <p>Know that the number name zero and the numeral 0 means 'nothing' or 'all gone' Know that 0 is one less than 1 Compare quantities to 5 using a variety of objects and representations Explore the different compositions of 4 and 5 e.g. 4 can be composed of 2 and 2 or 3 and 1 or 1, 1, 1 and 1 etc. Know that numbers can be composed of 2 parts or more than 2 parts Subitise to 5 without counting Estimate which objects is the heaviest and then use a balance scale to check Use the words heavy, heavier than, heaviest, light, lighter, lighter than and lightest to compare items Know that bigger items are not always the heaviest e.g. inflatable beach ball and a rock Identify a container that is full, empty, half full, nearly full and nearly empty Make comparisons of containers using the words 'tall', 'thin', 'narrow', 'wide' and 'shallow'</p> <p>Phase 5 – Growing 6 7 8</p> <p>Count 6, 7 and 8 objects using 1-1 correspondence Represent 6, 7 and 8 in different ways Count out the require number of objects from a larger group Make arrangements of 6, 7 and 8 in small groups to support Subitising e.g. I can see a 4 and a 4 in that representation of 8 Know 1 more and 1 less than a number to 8 Know that 'a pair' means 2 Arrange quantities into pairs and notice some quantities will have an odd one left over with no partner Combine 2 groups to find how many there are altogether Subitise when combining 2 groups to find how many there are altogether Use specific mathematical vocabulary related to length (longer and shorter), height (taller and shorter) and breadth (wider and narrower) Make comparisons using objects e.g. The sand tray in 4 blocks long. The table is 5 blocks long. Order and sequence important times in the day using language such as 'now', 'before', 'later', 'soon', 'after', 'then' and 'next' Use the words 'yesterday', 'today' and 'tomorrow' when talking about regular events that happen e.g. PE sessions Know that some processes such as growing vegetables take a longer time</p> <p>Phase 6 – Building 9 and 10</p> <p>Count forwards and backwards to 9 and 10 Represent 9 and 10 in different ways Make arrangements of 9 and 10 in small groups to support Subitising e.g. I can see a 5 and a 5 in that representation of 10 Know that a 10 frame is full when there are 10 Use 10 frames,</p>	<p>Phase 7 – To 20 and beyond</p> <p>Consolidate key skills – Subitising, counting, composition, sorting and matching, comparing and ordering Build and identify numbers to 20 and beyond using a range of resources Know that larger numbers are composed on full 10s and part of the next 10 (10 frames, numerals, towers of cubes, bead strings and more) Recognise that the numbers 1-9 repeat after every full 10 e.g. 11 is 1 full 10 and 1, 12 is 1 full 10 and 2 etc. Count on and back beyond 10 using representations as a guide Count on or back from different starting points Say what comes before and after a given number Place sequences of numbers in order Find larger numbers on number tracks and 100 squares Select and rotate shapes to fill a given space Explain why a shape wouldn't fit a space Make arrangements with shapes and describe the position of the shapes using positional language Select shapes to complete tangram outlines</p> <p>Phase 8 – First Then Now</p> <p>Consolidate key skills – Subitising, counting, composition, sorting and matching, comparing and ordering Know that the quantity of a group is changed when adding more Count on when adding more Create mathematical stories using 'first', 'then', 'now' Represent number stories using 10 frames, number tracks and fingers Know that the quantity of a group is changed when taking away Take away by counting out all the items at the start, take away the required amount practically, and then subitise or recount to see how any there are left Know that shapes can be combined and separated to make new shapes Explore the different ways a given shape can be built using smaller shapes Explore the different shape they can make by combining a set of given shapes in different ways</p> <p>Phase 9 – Find my pattern</p> <p>Consolidate key skills – Subitising, counting, composition, sorting and matching, comparing and ordering Know that doubling means 'twice as many' Build doubles using real objects and mathematical equipment and say the doubles as they see them e.g. Double 2 is 4 Say when items are not shared equally Recognise and make equal groups e.g. 3 crackers on each plate Notice that sometimes there</p>	<p>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</p> <p>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</p>	<p>Number and Place Value:</p> <p>Secure understanding of numbers to 10, representing numbers up to 10 in different ways and using language to compare numbers/quantities/pictures Say and order ordinal number to 5</p> <p>Addition and subtraction A:</p> <p>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</p> <p>Multiplication and Division: Know that multiplication is repeated addition and that division is sharing Fractions: Understanding the concept of whole and half</p> <p>Measurement: Use appropriate language to compare length, weight, capacity and time</p> <p>Geometry – Properties of shapes:</p> <p>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</p>

	to size, length, weight and capacity	'tomorrow' etc. Understand the passing of time using calendars e.g. advent	fingers and bead strings to subitise groups of 9 and 10 Line items up to make direct comparisons Explore number bonds to 10 using objects Identify shapes that stack and shapes than roll Explain why some shapes stack and others roll Build using 3-D shapes Begin to name 3-D shapes Explore similarities and differences between 3-D shapes Identify and complete patterns which use items more than once e.g. ABB, AAB, AABB, AABBB etc	are items left over and come up with their own suggestions for how to resolve this Notice that some quantities will share equally into 2 groups and some won't Notice that some quantities can be groups into pairs and some will have 1 left over Notice odd and even structures on numicon shapes and pair-wise 10 frames Replicate simple constructions, models, real places and places in stories Use positional language to describe where objects are in relation to other items e.g. The yellow cube in next to the pink cube Phase 10 – On the move Consolidate key skills – Subitising, counting, composition, sorting and matching, comparing and ordering Engage in extended problem solving and develop critical thinking skills Investigate relationships between numbers and shapes e.g. numicon shapes and Cuisenaire rods Copy, continue and create a widening range of repeated patterns and symmetrical constructions Use maps to see where things are in relation to other things Create own maps to represent the models they build, familiar places and place sin stories		are different to 2D shapes Geometry - Position and direction: Understand and use positional language (prepositions) beginning to use the words 'left and 'right
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