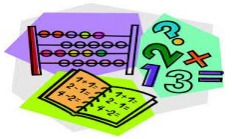
Maths, Early Years Curriculum Map



	Nursery Autumn 1	Nursery Autumn 2	Nursery Spring 1	Nursery Spring 2	Nursery Summer 1	Nursery Summer 2
Connections and Context **Key Experiences** (Mystery reader and parent visits throughout the year)	**Starting Nursery** **Mental Health Week** **Autumn** **Parent Stay and Play** **Autumn Walk** **Cooking**	**Celebrations – Diwali, Christmas** **Safe to be Me (Anti-Bullying)** **Nursery Rhyme Week (November)** **Trip – Walk to Postbox** **Christmas Carols Around Tree / Nativity songs** **Cooking**	**Winter** **Chinese New Year** **Mother's Day** **Winter Walk** **Trip – Walk around local area looking for logos / signs**	**Easter** **Shrove Tuesday** **Spring** **Easter bonnet parade** **Spring Walk**	**Father's Day** **Trip – Camping Trip**	**Transitions** **World Mud Day – 29th June** **World Chocolate Day – July** **Trip – Beach** **Sports Day**
Statutory Framework 2021	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.					
Key Texts, Poems, Songs	Autumn objects Spooky objects Pumpkin powerpoints – noticing and subitising What Will Fit? By Grace Lin	The Button Box by Margareete Reid 10 black dots by Donald Crew Brown Bear Brown Bear Mr Men books Father Christmas Needs a Wee Christmas powerpoints – noticing and subitising	Numberblocks episodes 1-5 Pattern Bugs by Trudy Harris Busy Bugs by Jayne Harvey Mouse shapes Circle! Sphere! By Grace Lin	Pete the Cat and his Four Groovy Buttons Room on the Broom by Julia Donaldson Where is the Green Sheep? By Mem Fox	Dogs Colourful Day by Emma Dodd One man went to Mow Upto my knees by Grace Lin	Selling items at Nursery garden party The last Marshmallow by Grace Lin
Intended Learning **Number** **Numerical Patterns** **(Shape Space and Measures)** Using Big Ideas in Early Maths	Joins in with counting rhymes and songs (5 little ducks, 5 Speckled Frogs) Beginning to know sets can be compared Beginning to know sets can be sorted by one attribute Subitising - With support can notice amounts within amounts Recognises basic colours	Joins in with counting rhymes and songs (1,2,3,4,5 Once I caught, 5 Little monkeys) Beginning to see 3 or not 3 by subitising Patterns – Starting to identify a pattern of their day Patterns – Starting to notice patterns of colours Recognises simple 2d shapes (circle, triangle, quadrilateral; square/ rectangle) Can use simple measurement to compare objects i.e. order objects shortest to tallest Aware of the idea of using numbers as a label i.e. 1:1 counting / numbers on a front door	Joins in with counting rhymes and songs Beginning to see 3 or not 3 by subitising Recognises simple 2D shapes Patterns – Starting to notice patterns of shapes Sets – Knows the same set can be sorted in multiple ways Number – Is able to count things they can't see Gaining accurate 1:1 correspondence upto 5 Know what a 5 frames is and how to use it Compares amounts using language of more/less	Beginning to know that a number is made up of other numbers (upto 5)by subitising Uses 5 frames to work out ways of making 5 Patterns – Recognised growing patterns Measurement – Beginning to compare weight Accurately uses some positional language Operations – Joins in with addition number stories and language of more / add	Counting – matches concrete amounts to pictorial (dice) amounts Measurement – Beginning to use non-metric measurement to compare length Operations – Joins in with subtraction number stories and language of fewer /take-away / less Recognises simple 3D shapes e.g ice cube, cone, pyramid in everyday objects Beginning to represent numbers by drawing lines or dots	Counting / Money – Can use 1:1 correspondence to pay with pennies / 5 frames Shows an awareness of capacity using the language full/empty Shows awareness of sharing amounts and language of 'half' and 'same' Patterns – Continues simple growing sequences

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	Reception Autumn 1	Reception Autumn 2	Reception Spring 1	Reception Spring 2	Reception Summer 1	Reception Summer 2
Connections and Contexts	**My class** **Mental health week**	**Diwali, Christmas** **Bonfire night/ Halloween** **Safe to be Me** **Autumn**	**Mothers Day** **Chinese New Year** **Winter**	**Eid** **Plants/animals growing- Earth Day** **Easter**	**Co-op visit (small groups)** **Fathers Day** **Spring**	**Transition** **Holidays, Summer** **Int'national mud day** **EY Beach Visit**
Statutory Framework 2021	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.					
Key Texts, Poems, Songs and Experiences	10 black dots Five creatures Goldilocks and the three bears The three little pigs	Anno's counting book Five little monkey's One is a snail, ten is a crab Hippo's go berserk More, fewer, less The enormous Turnip The Gingerbread Man Not a Box	Six dinner Sid Sidney the silly only eats six What the ladybird heard Brown bear, brown bear what do you see? There was an old lady who swallowed a fly Pattern bugs The napping house	10 Little monkey's The growing story Tall Next to an Ant A balancing Act Mouse Count	Shoe's, shoes, shoes Pete the cat Whose shoes?A shoe for every job Which would you rather be? Apples Rosie's walk Going on a bear hunt	Shapes, shapes, shapes When a line bends Mouse shapes

Intended Learning (progressive and spiral) **Number** **Numerical Patterns**	SETS: - Attributes can be used to sort collections into sets to make collections - The same collection can be sorted in different ways - Compare amounts: Sets can be compared and ordered SKILLS: - Recognises total sameness to make an exact match - Applies matching skills to make a set - Use one attribute to change a collection into two sets - Uses one or more attributes to change a single set into many sets -Asks "what's more/most?" and may represent comparison with a graph or tally. NUMBER SENSE: -Numbers are used in many ways, some more mathematical than others - Quantity is an attribute of a set of objects and we use numbers to name specific quantities - The quantity of a small collection can be intuitively perceived without counting (subitising). Introducing numbers to 5 and explore the composition of numbers to 5. Number bonds to 5 Narrate the pattern of the school day using now, next, after playtime, after lunch, before hometime etc	COUNTING MORE THAN JUST 1,2,3: - Counting can be used to find out "how many" in a collection" (Can count objects, actions and sounds) - Counting has rules that apply to any collection STABLE ORDER: - Fluency in counting using number names correctly first by 1, then skip-counting by 2s,5s and 10s. - Knows number sequence forward and backward-can continue an "interrupted" count ONE-TO-ONE CORRESPONDENCE: - Coordinates saying one number word with one point to each object ORDER IRRELEVANCE: - Arranges and rearranges a collection to confirm count - Group of objects for more efficient counting CARDINALITY: - Labels small sets by quantity (with or without counting) - Counts out a given number - Counts on or back from a given quantity NUMBER OPERATIONS (1-5) - Sets can be changed by adding items (joining) or by taking some away (separating). - Sets can be compared using the attribute of numerosity, and ordered by more than, less than and equal to. - A quantity (whole) can be decomposed into equal or unequal parts; the parts can be composed to form the whole.	NUMBER OPERATIONS - Sets can be changed by adding items (joining) or by taking some away (separating). - Sets can be compared using the attribute of numerosity, and ordered by more than, less than and equal to. - A quantity (whole) can be decomposed into equal or unequal parts; the parts can be composed to form the whole. SKILLS: - Counts on from first number while keeping track of counts - Counts back from first number while keeping track of counts - counts both sets and determines which set is more by which number comes later in the counting sequence - counts up from smaller number to larger number - counts up from a given part to the whole. Introduce numbers 6,7,8 composition **PATTERN:** -Patterns are sequences (repeating and growing) governed by a rule; they exist both in the world and in mathematics - Identifying the rule of a pattern brings predictability and allows us to make generalizations - The same patterns can be found in different forms **SKILLS:** **Recognise pattern:** applies the word pattern to simple repeating sequences **Copy:** Duplicate simple patterns alongside a model pattern **Complete:** fills in missing elements of a pattern **Extend:** Continues a pattern	Teach 9,10 Doubling, halving , sharing Number bonds to 10 Narrate the pattern of the school day using now, next, after playtime, after lunch, before hometime etc **MEASUREMENT:** - Many different attributes can be measured, even when measuring a single object -All measurements involve a 'fair' comparison - Quantifying a measurement helps us to describe and compare more precisely **SKILLS**: - Measuring how much something will hold or how tall it is. What kind of bigger is it? - understand that measurements are about relative size-not just "long" but "longer than…" - use tools to help them measure (indirect comparison). How can we compare? - Understand that when comparing two objects they need to measure the same attribute. How can we make it fair? - use numbers to make comparisons more precise - use equal size units to compare an outcome. How much bigger is it? Narrate the pattern of a week using the names of the days.	**DATA ANALYSIS:** **-The purpose of collecting data is to answer questions when the answers are not immediately obvious** **-Data must be represented in order to be interpreted, and how data are gathered and organised depends on the question** **-It is useful to compare parts of the data and to draw conclusions about the data as a whole** **SKILLS:** **Object graph:** children to organise objects into categories **Pictographs:**Children can use/read these graphs to find out facts **Bar graph:** Children understand how to use this graph to compare a number of items for example, number of birthdays etc. **Tally Chart:** Can make marks and tallies to record inventories/contents Narrate the pattern of a week using the names of days, weekend, today, tomorrow, yesterday SPATIAL RELATIONSHIPS: -Relationships between objects and places can be described with mathematical precision -Our own experiences of space and two-dimensional representations of space reflect a specific point of view -Spatial relationships can be visualised and manipulated mentally. SKILLS: - Uses language such as near, opposite, closer, farther to describe the position of an object -Uses left and right correctly -Follows, understands and gives direction using language of	**SHAPE** -Shapes can be defined and classified by their attributes -The flat faces of solid (three-dimensional) shape are two-dimensional shapes. -Shapes can be combined and separated (composed and decomposed) to make new shapes SKILLS: -Can identify 2D and 3D shapes in our world -Uses names of 2D shapes - Uses names of 2D shapes to describe 3D shapes - understand the attributes of shapes (a triangle has 3 sides etc.) - Able to ignore unusual orientations of a shape (a square standing on its corner is still a square). - Sees and can describe the faces of a 3D solid - Can combine and substitute shapes (two triangles can made a square). CONSOLIDATION OF ALL TOPICS LEARNED

			Describe: Identifies the rule of a pattern by naming the smallest unit of repeat **Translate:** Uses new media to construct patterns with the same structure as a model pattern.		past, over, under, through etc	