



St. Augustine's Catholic Primary School: Progression in Learning Framework - Maths

EYFS Statutory Educational Programme. The curriculum needs to include:

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**

Knowledge		Skills						
<ul style="list-style-type: none"> • <i>Knowledge of Number – counting, cardinality, composition</i> • <i>Knowledge of shapes and space including properties of shapes and relationships between shapes</i> • <i>Knowledge of measure</i> • <i>Knowledge of pattern</i> 		<p><i>Includes:</i> counting, representing, subitising, comparing, creating patterns, partitioning, combining, sharing, measuring, describing, exploring, manipulating,</p> <p><i>I am learning to ...</i></p> <ul style="list-style-type: none"> • Reason • Problem Solve • Investigate • Sort and match • Count • Estimate • Discriminate • Compare • Calculate • Sequence • Remember • Think • Explain • Make connections • Take risks • Memorise • Manipulate numbers • Test ideas • Persevere • Record • Check 						
<p>In Early Years we develop fluent mathematicians who have a deep conceptual understanding of number. We ensure that they are able to provide explanations, give reasons for their answers and tackle future challenges by:</p> <ul style="list-style-type: none"> • Providing opportunities for children to practise, rehearse and apply mathematical knowledge and skills • Encouraging children to investigate numbers by exploring their characteristics and understanding how they can be manipulated using different operations • Encouraging them to think logically so that they can make connections and solve problems • Fostering children's acquisition and use of mathematical vocabulary to justify and explain their ideas 								
<p>EARLY COMPARISON AND PATTERN</p> <table border="1"> <tr> <td> <p>Early Comparison I know...</p> <ul style="list-style-type: none"> • Objects can be sorted into different groups using different criteria • What is the same and what is different • What 'lots' and 'not many' of something looks like </td> <td> <p>Early Pattern I know...</p> <ul style="list-style-type: none"> • Patterns are repeated • Patterns can be continued • Patterns follow a sequence </td> </tr> </table>			<p>Early Comparison I know...</p> <ul style="list-style-type: none"> • Objects can be sorted into different groups using different criteria • What is the same and what is different • What 'lots' and 'not many' of something looks like 	<p>Early Pattern I know...</p> <ul style="list-style-type: none"> • Patterns are repeated • Patterns can be continued • Patterns follow a sequence 				
<p>Early Comparison I know...</p> <ul style="list-style-type: none"> • Objects can be sorted into different groups using different criteria • What is the same and what is different • What 'lots' and 'not many' of something looks like 	<p>Early Pattern I know...</p> <ul style="list-style-type: none"> • Patterns are repeated • Patterns can be continued • Patterns follow a sequence 							
<p>COUNTING AND CARDINALITY</p> <table border="1"> <tr> <td> <p>One to one Correspondence I know...</p> <ul style="list-style-type: none"> • How to match one object to another object or person • How to match one number name to each object when counting </td> <td> <p>Rote Counting I know...</p> <ul style="list-style-type: none"> • The order of numbers • Number names </td> </tr> <tr> <td> <p>Counting I know...</p> <ul style="list-style-type: none"> • The last number I say is the total amount • When to stop when counting out from a larger group • Anything can be counted </td> <td> <p>Subitising I know...</p> <ul style="list-style-type: none"> • How many are in a group without having to count • That the same amount can be represented by different sized objects </td> </tr> <tr> <td> <p>Conservation I know...</p> <ul style="list-style-type: none"> • The total amount of objects stays the same however the objects are arranged </td> <td> <p>Recognising and Reading Numbers I know...</p> <ul style="list-style-type: none"> • Symbols represent quantities • That numbers can have one digit, two digits, three digits or more </td> </tr> </table>			<p>One to one Correspondence I know...</p> <ul style="list-style-type: none"> • How to match one object to another object or person • How to match one number name to each object when counting 	<p>Rote Counting I know...</p> <ul style="list-style-type: none"> • The order of numbers • Number names 	<p>Counting I know...</p> <ul style="list-style-type: none"> • The last number I say is the total amount • When to stop when counting out from a larger group • Anything can be counted 	<p>Subitising I know...</p> <ul style="list-style-type: none"> • How many are in a group without having to count • That the same amount can be represented by different sized objects 	<p>Conservation I know...</p> <ul style="list-style-type: none"> • The total amount of objects stays the same however the objects are arranged 	<p>Recognising and Reading Numbers I know...</p> <ul style="list-style-type: none"> • Symbols represent quantities • That numbers can have one digit, two digits, three digits or more
<p>One to one Correspondence I know...</p> <ul style="list-style-type: none"> • How to match one object to another object or person • How to match one number name to each object when counting 	<p>Rote Counting I know...</p> <ul style="list-style-type: none"> • The order of numbers • Number names 							
<p>Counting I know...</p> <ul style="list-style-type: none"> • The last number I say is the total amount • When to stop when counting out from a larger group • Anything can be counted 	<p>Subitising I know...</p> <ul style="list-style-type: none"> • How many are in a group without having to count • That the same amount can be represented by different sized objects 							
<p>Conservation I know...</p> <ul style="list-style-type: none"> • The total amount of objects stays the same however the objects are arranged 	<p>Recognising and Reading Numbers I know...</p> <ul style="list-style-type: none"> • Symbols represent quantities • That numbers can have one digit, two digits, three digits or more 							
<p>OPERATIONS AND CALCULATION</p>								

Partitioning a Number / know... <ul style="list-style-type: none"> • That an amount can be made up in different ways 	Inverse Operations / know... <ul style="list-style-type: none"> • That halving is the opposite of doubling • That addition is the opposite of subtraction • Doubling is 2 sets of the same amount
Calculation / know... <ul style="list-style-type: none"> • More is greater than and less is fewer than • Addition is combining sets • Subtraction is taking amounts away 	Number Bonds / know... <ul style="list-style-type: none"> • Which pairs make a given number
Estimation / know... <ul style="list-style-type: none"> • That estimation will give me a value that is close to the right amount 	Number Patterns / know... <ul style="list-style-type: none"> • Some number patterns e.g. odd, even • Number patterns repeat according to rules

Characteristics of Effective Learning that are relevant

<p align="center">Playing & Exploring</p> <ul style="list-style-type: none"> • Plan and think ahead about how they will explore or play with objects and resources • Make independent choices • Do things independently that they have been previously taught • Respond to new experiences that you bring to their attention • Apply learning to different contexts through their play and exploration 	<p align="center">Active Learning</p> <ul style="list-style-type: none"> • Show goal-directed behaviour • Use a range of strategies to reach a goal they have set themselves • Begin to correct their mistakes themselves • Keep on trying when things are difficult 	<p align="center">Creating and Thinking Critically</p> <ul style="list-style-type: none"> • Review their progress as they try to achieve a goal • Check how well they are doing • Solve real problems • Know more, so feel confident about coming up with their own ideas • Make more links between those ideas • Concentrate on achieving something that's important to them • Begin to predict sequences and patterns
--	---	---

<p>ELG: Number Children at the expected level of development will:</p> <ul style="list-style-type: none"> • 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 to 5 (including subtraction facts) and some number bonds to 10, including double facts 	<p>ELG: Numerical Patterns Children at the expected level of development will:</p> <ul style="list-style-type: none"> • 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
--	---

Progression in Learning – Small Steps Nursery to KS1

	Nursery			Reception			KS 1
	Autumn	Spring	Summer	Autumn	Spring	Summer	
Number	Recites some numbers, not always in order Is beginning to use number names for each item, when counting, not always correctly	Recites numbers to 5 usually in the correct order Can say number names for each item in order 1,2,3 when counting	Recites numbers past 5 Has fun counting as far as they can go and is fascinated with large numbers 'Tags' (reliably points or touches each item), using the stable order of 1,2,3,4,5 Can count things of different sizes	<ul style="list-style-type: none"> • count up to 5 objects reliably • understand that numbers can be shown in different representations • recognise the numerals 1, 2, 3, 4 and 5 • match groups of objects to the correct numeral -identify if a group has more or fewer objects: they can line up objects to check which group has more or fewer; they can say if groups are equal, given an amount, they can 	<ul style="list-style-type: none"> • count numbers up to 10 using one-to-one correspondence • represent the numbers 6–10 on a ten frame • start to recognise that they can count on using a ten frame, understanding that a full row is 5 • count 6–10 objects out from a larger group • use the words more and fewer to compare groups of up to 10 items 	<ul style="list-style-type: none"> • count forwards and backwards between 1 and 10 confidently • use a 1–10 number track to count on or count back • add or take away numbers using a first, then, now story structure • explain how they know what number to start on, how many jumps to make on the number line and how to identify the answer -confidently count forwards and backwards to 20 	<p>Number – number and place value</p> <ul style="list-style-type: none"> • count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number; count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • identify and represent numbers using objects and pictorial representations including the number line,

				<p>show more or fewer with support</p> <ul style="list-style-type: none"> • compare two groups of non-identical objects and match them in order to find out which group has more, fewer or the same • find one more and one less than a number within 5, and demonstrate this using a five frame and cubes • tell first, then, now stories to express one more or one less • use the vocabulary one less and one more in the correct context • use the language of wholes and parts • use physical differences and number bonds to 5 to split a whole into two parts. 	<ul style="list-style-type: none"> • start to find the difference between groups by counting on or counting back • represent numbers to 10 • confidently use the vocabulary of part and whole • accurately identify two parts and their combined whole • add two parts to make a whole up to 10 • use a part-whole model to show two parts and the whole, in various orientations • show that they understand that the two parts can be the same size • understand which are the parts and which is the whole in a part-whole model • show that they understand altogether as the combined total of all the parts • confidently use the vocabulary of number bonds and addition • accurately identify pairs of numbers with a total of 10 • use a ten frame and a part-whole model to represent bonds to 10 • understand that if 8 and 2, for example, make 10, then so must 2 and 8 • recognise, understand and use the vocabulary linked to number bonds and subtraction • understand the structure of subtraction and finding a missing part • identify how many are left when a variety of numbers are subtracted from 10 • begin to see the inverse relationship between addition number bonds to 10 and subtraction number bonds to 10 	<ul style="list-style-type: none"> • accurately count an irregular set of up to 20 objects or resources • identify one more and one less than a given number to 20 • use vocabulary such as more and fewer to compare numbers and quantities • confidently use a range of resources to represent given numbers -use concrete manipulatives to double and halve numbers • show why a number is odd or even • identify doubles to double 5 • explain that even numbers can be shared into two equal groups and odd numbers cannot • halve even numbers to 10 by sharing into two equal groups 	<p>and use the language of equal to, more than, less than (fewer), most, least count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number;</p> <p>Number – addition and subtraction</p> <ul style="list-style-type: none"> • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$. <p>Number – multiplication and division</p> <ul style="list-style-type: none"> • count, read and write numbers to 100 in numerals; 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 and arrays with the support of the teacher
Attempts to count in play but may not understand the	Counts in play and is beginning to understand	Know that the last number reached when counting a small set of	Mastering Number	Mastering Number	Mastering Number	Mastering Number	

significance of the last number in the count	the significant of the last number in the count	objects tells you how many there are in total (cardinal principle)	<p><i>Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison.</i></p> <ul style="list-style-type: none"> • identify when a set can be subitised and when counting is needed • subitise different arrangements, both unstructured and structured, including using the Hungarian number frame (<i>the Hungarian number frame promotes subitising and exposes different structures, allowing children to develop an appreciation of how numbers are composed</i>). • make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills • spot smaller numbers 'hiding' inside larger numbers • connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers • hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is 	<p><i>Pupils will continue to develop their subitising and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals.</i></p> <ul style="list-style-type: none"> • continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals • begin to identify missing parts for numbers within 5 • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame • focus on equal and unequal groups when comparing numbers • understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers 	<p><i>Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice.</i></p> <ul style="list-style-type: none"> • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes • continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2 begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek
Can recognise groups of 1 or 2 objects without counting them individually	Can recognise up to 3 objects without counting them individually	Can quickly recognise up to 3 objects without having to count them individually			
Compares quantities – 'more than' – in play	Compares quantities – 'more than' 'fewer than' in play	Compares quantities where amounts in the groups are <i>obviously very different</i> , - 'more than' 'fewer than' 'the same'			
		<p>Is beginning to understand the composition of numbers 2 and 3</p> <p>Partitions sets of 2 and 3 objects using a part-part whole model</p>			
Experiments with own symbols and marks, which might include numerals	Experiments with recording quantities eg tallying, dots	Experiments with writing numbers of personal significance			

				<p>made of one more than the previous number</p> <ul style="list-style-type: none"> develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds compare sets of objects by matching begin to develop the language of 'whole' when talking about objects which have parts 			
Fractions			Can 'share' from a whole or a quantity of objects with friends			<p>Power Maths</p> <ul style="list-style-type: none"> sort up to 5 objects into two groups describe how they have sorted the objects know that there is often more than one way to sort a collection understand that a collection can be sorted into more than two groups -use concrete manipulatives to double and halve numbers show why a number is odd or even identify doubles to double 5 explain that even numbers can be shared into two equal groups and odd numbers cannot halve even numbers to 10 by sharing into two equal groups 	<p>Number – fractions</p> <ul style="list-style-type: none"> recognise, find and name a half as one of two equal parts of an object, shape or quantity
Pattern	<p>Talks about patterns in the environment with adult support</p> <p>Arranges items in their own patterns</p>	Can identify patterns around them	<p>Extend and create ABAB patterns with shape and number</p> <p>Can spot and correct an error in a ABAB pattern</p>	<ul style="list-style-type: none"> identify patterns in the environment, identifying the pattern 'rule'. continue, copy and re-create repeated patterns, 	<p>Power Maths</p> <ul style="list-style-type: none"> recognise and describe patterns, for example, yellow, blue, yellow, blue, yellow, blue or big, small, big, small, big, small 	<p>Geometry – properties of shape</p> <ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences 	

			Creates their own spatial patterns showing some organisation or regularity	using shapes and numbers (ABB).	<ul style="list-style-type: none"> continue patterns and make their own patterns translate or copy patterns from one form to another; such as from a colour pattern into an action, sound or shape pattern 		
Shape	<p>Explores 2D and 3D shapes e.g. through block play, puzzles, modelling, using some shape names and related mathematical language</p> <p>Selects shapes appropriately e.g. cube/cuboid for a house</p> <p>Combines shapes to make pictures</p> <p>Makes simple constructions</p>	<p>Explores 2D and 3D shapes e.g. through block play, puzzles, modelling, using a range of shape names and related mathematical language</p> <p>Combines shapes to make other shapes</p> <p>Selects shapes appropriately e.g. square house with triangle roof</p>	<p>Explores and talks about 2D and 3D shapes e.g. circle, rectangle, triangle, square e.g. cube, cuboid, cylinder, cone</p> <p>using mathematical language e.g. sides, corners, flat, round</p> <p>Chooses items based on shape so they are appropriate for specific tasks</p> <p>Partitions and combines shapes to make new shapes using 2D and 3D shapes</p>	<p>Power Maths</p> <ul style="list-style-type: none"> recognise and describe some 3D and 2D shapes. –build, describe and sort common 3D shapes (sphere, cylinder, cone, cube, cuboid) match 3D shapes to their 2D prints and name each of these regular 2D shapes –explore which shapes will roll and slide and talk about them 	<p>Power Maths</p> <ul style="list-style-type: none"> sort up to 5 objects into two groups describe how they have sorted the objects know that there is often more than one way to sort a collection understand that a collection can be sorted into more than two groups recognise common 2D shapes (triangles and squares) recognise that shapes can be put together to build a new shape build and represent a new shape by combining two or more shapes make a link to how numbers and shapes can be partitioned 	<p>Geometry – properties of shape</p> <ul style="list-style-type: none"> recognise and name common 2D and 3D shapes, including 2D shapes [for example, rectangles (including squares), circles and triangles]; 3D shapes [for example, cuboids (including cubes), pyramids and spheres] <p>Geometry – position and direction</p> <ul style="list-style-type: none"> describe position, direction and movement, including whole, half, quarter and three-quarter turn 	
Space	<p>Uses ordinal vocabulary 'first' and 'last' in play</p> <p>Talks about familiar places</p> <p>Begins to remember their way around familiar environments eg knows where to find their favourite activity</p>	<p>Understands some positional language such as 'in' 'out' 'on' 'under' 'next to' 'behind' and uses some of this vocabulary</p> <p>Recalls some parts of a familiar route</p>	<p>Understands and uses positional language 'in' 'out' 'on' 'under' 'next to' 'behind'</p> <p>Predicts, moves and rotates objects to fit the space or create the shape they would like</p> <p>Describes a familiar route eg in a story using simple directional language</p>	<p>Power Maths</p> <p>use positional and directional language to follow and give instructions</p>		<p>Geometry – position and direction -Position and direction</p> <ul style="list-style-type: none"> describe position, direction and movement, in 	
Measure	<p>Uses big and small to compare size</p> <p>Explores 'heavy' and 'light' in play</p> <p>Explores 'full' and 'empty' in play</p>	<p>Uses long and short to compare length and tall and short to compare height</p> <p>Uses 'heavy' and 'light' to compare mass</p> <p>Uses 'full' and 'empty' to compare capacity</p>	<p>Makes simple comparisons about:</p> <ul style="list-style-type: none"> length using longer, shorter, height using taller, shorter, weight using, heavier, lighter 	<p>Power Maths</p> <ul style="list-style-type: none"> find one more and one less than a number within 5 in the context of a first, then, now story structure. Use pictures, objects and a five frame to show what is happening 	<p>Power Maths</p> <ul style="list-style-type: none"> describe the length, height and weight of objects using everyday language understand the difference between length, height and weight 	<p>Power Maths</p> <ul style="list-style-type: none"> order three familiar events from their day discuss what is happening in each picture use the language related to time: before, after, next, then, later 	<p>Measurement</p> <ul style="list-style-type: none"> sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]

	Anticipates times of the day, such as prayer time, snack time or home time	Sequences a small number of familiar events	<ul style="list-style-type: none"> capacity using more/less full/empty <p>Begins to respond to and use words such as 'before' 'after' 'soon' or 'later'</p>	<ul style="list-style-type: none"> tell first, then, now stories to express one more or one less 	<ul style="list-style-type: none"> use non-standard units to measure and compare length, height and weight solve problems involving length, height and weight 	<p>describe the capacity of objects using everyday language</p> <ul style="list-style-type: none"> visually compare capacity using taught vocabulary solve problems involving and capacity 	<ul style="list-style-type: none"> measure and begin to record the following: lengths and heights, mass/weight compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] and mass/weight [for example, heavy/light, heavier than, lighter than] measure and begin to record the following: capacity and volume compare, describe and solve practical problems for capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
	Explores money in play	Explores money through first-hand experiences	Understands that items need to be paid for and can talk about what they would like to buy				



St Augustine's Catholic Primary School
Assessment: On track/not on track using best fit for each Milestone Descriptor – Mathematical Development

Milestone 1 (Nursery- Autumn term)	I can recite some numbers, not always in order and I am beginning to use number names for each item, not always correctly. I try to count in play but may not understand the significance of the last number in the count. I can recognise groups of 1 or 2 objects without counting them individually. I compare quantities using 'more than' in play. I experiment with symbols and marks, which might include numerals. I talk about patterns in the environment with adult support. I explore 2D and 3D shapes using some shape names and related mathematical language, I select shapes appropriately to use in my learning and I combine shapes to make pictures and simple constructions. I use ordinal vocabulary 'first' and 'last' in play. I talk about familiar places and I am beginning to remember my way round familiar environments eg to find my favourite activity. I use 'big' and 'small' to compare size. I explore 'heavy' and 'light' and 'full' and 'empty' in play. I can anticipate times of the day, such as mealtimes or home time. I explore money in play
Milestone 2 (Nursery- Spring term)	I recite numbers to 5 usually in the correct order and I can say number names for each item in order 1,2,3. I count in play and I am beginning to understand the significant of the last number in the count. I can recognise up to 3 objects without counting them individually. I compare quantities using 'more than' 'fewer than' in play. I experiment with recording quantities. I identify patterns around me and I explore 2D and 3D shapes using a range of shape names and related mathematical language. I combine shapes to make other shapes and I select shapes appropriately. I understand and use some positional language and I can recall some parts of a familiar route. I use 'long' and 'short' to compare length, 'tall' and 'short' to compare height, 'heavy' and 'light' to compare mass and 'full' and 'empty' to describe capacity. I can sequence a small number of familiar events. I explore money through first hand experiences
Milestone 3 (Nursery- Summer term)	I recite numbers past 5 and say one number for each item in order 1-5. I have fun counting as far as I can and I am fascinated with large numbers. I 'tag' (reliably pointing to or touching each item), using the stable order 1,2,3,4,5. I count things of different sizes. I understand cardinality when counting a small set of objects. I quickly recognise up to 3 objects without counting them. I compare quantities where amounts are obviously very different, - using 'more than' 'fewer than' 'the same' I am starting to understand the composition of numbers 2 and 3 and can partition sets of 2 and 3 objects using a part-part whole model. I experiment with writing numbers important to me. I 'share' from a whole or a quantity of objects. I extend and create ABAB patterns with shape and number and I can spot and correct an error in an ABAB pattern. I create my own spatial patterns showing some organisation or regularity. I explore and talk about some 2D and 3D

	<p>shapes using some mathematical language, and I can partition and combine shapes to make new shapes. I understand and use some positional language. I can predict, move and rotate objects to fit a space. I can describe a familiar route using simple directional language. I make simple comparisons about length, height, weight and capacity. I am beginning to respond to and use words such as 'before', 'after', 'soon' or 'later'. I understand that items need to be paid for and can talk about what I want to buy</p>
<p>Milestone 4 (Reception- Autumn term)</p>	<p>I can talk about numbers to 5 in the wider world e.g. objects at home/classroom, my age, number of pets/siblings I have etc. I can confidently count up to 5 and can recognise and represent numbers up to 5, following models that have been covered in the lesson.</p> <p>I can identify if a group has more or fewer objects. I can line up objects to check which has more or fewer. I can say if groups are equal. Given an amount, I can show more or fewer with support. I can compare two groups of non-identical objects and match them in order to find out which has more, fewer or the same. I can independently describe and show one more using manipulatives and in a drawing. I can independently show one less than 5 using a variety of objects or drawings.</p> <p>I can confidently use the language of whole and parts and can use physical differences and number bonds to 5 to split a whole into two parts. I can tell first, then and now stories using objects</p> <p>I can use positional and directional language to follow and give instructions. I am starting to use more positional vocabulary.</p> <p>I can build, describe and sort common 3D shapes (sphere, cylinder, cone, cube, cuboid). I can match 3D shapes to their 2D prints and name each 2D shape. I explore which shapes will roll and slide and talk about them. I can recognise and describe some more 3D and 2D shapes. I can engage with 3D and 2D map-making in familiar environments, sequencing landmarks and designing small worlds.</p> <p>I can spot patterns in the environment, identifying the pattern 'rule'. I continue, copy and re-create repeated patterns, using shapes and numbers (ABB). I describe a familiar route using directional language.</p>
<p>Milestone 5 (Reception- Spring term)</p>	<p>I can count to 10 using one-to-one correspondence. I can represent numbers to 10 on a ten frame. I am starting to recognise that I can count on using a ten frame and understand that a full row is 5. I can count objects out from a larger group. I can represent number bonds to 10 in a variety of ways, including using a part-whole model. I understand that the whole is the total of the parts. I can use the language of part and whole. I can count how many in each part and recount to find how many altogether in the whole group. With some support, I can use ten frames to help me work out how many altogether and how many more. I use the words more and fewer to compare groups and I am beginning to find the difference between groups.</p> <p>I am able to represent a subtraction number bond to 10 using resources in a part-whole model. I understand the structure of the subtraction calculation/ story and am able to apply the taught method efficiently.</p> <p>I can find objects that are heavier and lighter than a given object, use balance scales to check and describe the comparison using stem sentences. I can use the appropriate vocabulary of longer, shorter and taller when describing items I have measured. I understand and can use the measuring technique of lining up items and measuring, starting from a common baseline. I am beginning to measure length, height and distance using common non-standard units</p> <p>I can recognise simple and some more complex ABC, ABB or AAB patterns. I can explain what makes it a pattern, describe or identify what part repeats and can continue the pattern. I can build and translate AB, ABB or AAB patterns using objects, actions and sounds.</p>
<p>Milestone 6 (Reception- Summer term)</p>	<p>I recite numbers beyond 20, from different starting points, in the right order and recognise the pattern when counting. I can represent numbers to 20 in a variety of ways. I can confidently and accurately count on from a given number to find a total and count back from a given number to find out where I will land. I can use first, then, now stories to explain how I worked out an answer and why that answer is correct. I count, including crossing boundaries 19/20 and 29/30 and I can count things that cannot be moved. I link numerals with the cardinal number value – to 20. I recognise amounts that have been rearranged and know that, if nothing is added/ taken away, the amount is the same. I compare quantities of objects arranged in different ways – using 'more than' 'less than' 'fewer' 'the same as' 'equal to', (up to 10 objects). I can explain 'I more than/ I less than' relationship between sequential numbers within 10. I can partition sets of up to 10 into two groups and recognise that the whole number can be recombined as pairs of numbers to make the same total. I can share an even number of concrete items into two equal groups. I can complete stem sentences. I can identify odd and even numbers and use sharing into groups to support them. I can sort 5 objects into two groups and describe how I have sorted the objects.</p> <p>I am beginning to explore and work out mathematical problems, using signs and strategies of my own choice. I can recall most number bonds to 10, including all double facts and I can explain the pattern. I can write numbers 0-20. I understand that halving is sharing into two equal parts and doubling is adding the same number to itself. I can continue and create repeating patterns, spotting errors. I can talk about patterns of numbers within 10, including odds and evens and number facts.</p> <p>I recognise common 2D shapes. I recognise that shapes can be put together to build a new shape. I am able to build and represent a new shape by combining two or more shapes. I show an understanding of how numbers and shapes can be partitioned. I use language such as faces, edges to describe 3D shapes. I recognise a wider range of 3D shapes, such as pyramids and triangular prisms. I can compose and decompose 2D shapes recognising that a shape can have other shapes within it, and I can combine shapes to make other shapes.</p> <p>I can use full, nearly full, nearly empty and empty to describe capacity. I can use practical equipment to compare the capacity of containers</p> <p>I can order three familiar events and discuss what is happening in each picture using the language related to time.</p> <p>I use a range of non-standard units for measuring making sensible choices depending on what is being measured, and I solve problems using prediction and discussion, paying attention to fairness and accuracy. I experiment measuring time with timers and calendars. I can pay for items using 1p, 5p and 10p and £1 coins.</p>