



Maths		
Autumn 1 – Once upon a time...		
Number	Numerical Patterns	Space Shape and Measure
<p>Stable Order</p> <p>Pupils will begin to understanding the verbal sequence of counting; being able to say the number names in sequential order.</p> <p>Pupils will take part in finger rhymes with numbers, such as ‘Two Little Dicky Birds’, ‘1, 2, Buckle my Shoe’, ‘One Potato, Two Potatoes’ and ‘Here is the Beehive’.</p> <p>Pupils will sing songs, using puppets and props, such as 5 Little Speckled Frogs, 5 Little Ducks, 5 Cheeky Monkeys, 5 Little Men in a Flying Saucer and 5 Current Buns.</p>	<p>Children will have regular opportunities to hear the counting sequence, in a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to higher numbers. For example: playing hide and seek, rocket-launch count-downs, counting the total number of children in the group when taking the register and lining up etc.</p>	<p>Pupils will use the Nursery visual daily timetable to describe a familiar route. They will talk about patterns of events e.g.- ‘First’, ‘then’, ‘after’, ‘before’ - “Every day we...”</p> <p>Pupils will explore shape and number inset boards.</p> <p>Pupils will have opportunity in the indoor and outdoor environment to explore capacity through investigating filling and emptying containers. They will learn the vocab ‘full’ and ‘empty’.</p> <p>Pupils will develop their understandg of position through words alone- with no pointing. They will discuss position in real contexts. For example; how to shift the leaves off a path, or sweep water away down the drain.</p> <p>Pupils will learn and sing the position song ‘on in under *clap* *clap* *clap* and will be invited to place objects in the corresponding locations e.g.- in the box/ under the box/ on the box etc.</p> <p>Adults will model the use of spatial words in play, including ‘in’, ‘on’, ‘under’, ‘up’, ‘down’, ‘besides’ and ‘between’. For example: “Let’s put the troll under the bridge and the billy goat beside the stream.” Pupils</p>



		<p>will be encouraged to use these words in their own play to discuss position.</p> <p>Pupils will explore interesting loose parts, such as corks, spools, glass beads, cardboard tubes, pebbles, bun cases, shells, matchsticks and lollypop sticks in a large tray. Pupils will be encouraged to sort and categorise objects according to shape, colour or size.</p> <p>Tidy-up time will be used to match blocks to silhouettes or fit things in containers, describing and naming shapes. For example: "Where does this triangular one /cylinder /cuboid go.</p>
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Maths

Autumn 2- Magnificent Me!

Number

Numerical Patterns

Shape, Space and Measure

Stable Order

Pupils will continue to understanding the verbal sequence of counting; being able to say the number names in sequential order.

Pupils will continue to sing songs, using puppets and props, such as 5 Little Speckled Frogs, 5 Little Ducks, 5 Cheeky Monkeys, 5 Little Men in a Flying Saucer and 5 Current Buns. These props will be available in the maths and/or music areas of provision for pupils to access independently.

Children will have regular opportunities to hear the counting sequence, in a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to higher numbers.

For example: playing hide and seek, rocket-launch count-downs, counting the total number of children in the group when taking the register and lining up etc.

Children will explore large number tracks from 0- 10 (and beyond) on the ground. They will practise saying the number names in order as they walk along the number line.

Pupils will explore the book 'Pants' by Giles Andreae. They will explore different patterns in the book and on their own clothes. They will be encouraged to use language such as 'pointy', 'spotty', 'blobs' to describe different patterns they see. Pupils will design their own pair of pants.

Pupils will explore the vocabulary of size. They will be able to directly compare two objects by aligning them and stating which one is bigger/ smaller. Pupils will explore height charts and discuss their height in relation to their friends and peers.

Pupils will talk about their routines at home, discussing what they do in the day time e.g. wake up, brush teeth, go to school.

They will also discuss what they do at night time e.g. have a bath, put pyjamas on, go to bed. They will be encouraged to use language such as 'first', 'then...' to describe what they do in order. Pupils will use vocabulary such as 'morning', 'afternoon', 'evening' and 'night-time', 'earlier', 'later', 'too late', 'too soon', 'in a minute'.

Pupils will explore shape and number inset boards

Whilst learning about the number 1, pupils will explore circles. They will learn to recognise and a circle and count its 1 side.

Pupils will explore combining shapes to make new ones – an arch, a bigger triangle etc. Pupils will have opportunities to freely explore shapes that combine to make other shapes, such as pattern blocks and interlocking shapes. Pupils will discuss the different designs that they make.



Pupils will engage in physical play with equipment that encourages counting actions, such as skipping ropes or balls to bounce. They will be encouraged to count how many they, and others, can do.

Pupils will play Hide-and-Seek with their friends in the outdoor area. They will decide which number the 'seeker' must count to.

Recognition and Representing Number

Pupils will be introduced to 10 Town. This half term they will explore The Zero Pond/0, King One/1 and Tommy Two/2 through stories, songs and games.

Pupils will Identify number representations, including Numicon, objects, pictures, pairs and numerals. Pupils will explore standard representations, such as dice, ten frames and fingers as well as nonstandard representations.

Pupils will explore pairs and matching games.

Pupils will begin to represent numbers in their own ways using objects, actions, fingers and marks.

Pupils will explore the vocabulary of size. They will be directly compare two objects by aligning them and stating which one is bigger/ the biggest, small/ smallest.

Pupils will have opportunity to explore size changes through a range of indoor and outdoor play based experiences. For example: "Can you make a puddle larger?", "When you squeeze a sponge, does it stay small?", "What happens when you stretch dough, or elastic?"



Maths		
Spring 1- Old McDonald had a Farm		
Number	Numerical Patterns	Shape, Space and Measure
<p>One-to-One Correspondence</p> <p>Pupils will develop their understanding that when saying the names of the numbers in sequence, each object receives one count and one only one count. Children will have regular opportunities to practise touch counting, in a variety of playful contexts, inside and outdoor, sometimes going to higher numbers.</p> <p>Adults will model counting and make deliberate mistakes, for example counting the same object twice. Children will discover good ways of counting, for example; touching or moving each object as they count.</p> <p>Pupils will explore interesting loose parts, such as corks, spoons, glass beads, cardboard tubes, pebbles, bun cases, shells, matchsticks and lollypop sticks in a large tray. Pupils will be encouraged to handle, arrange, touch and count the objects,</p>	<p>Pupils will explore simple repeated ABAB patterns. They will match objects by colour/ size (such as compare bears/ farm animals) to duplicate a pre-made pattern.</p>	<p>Whilst learning about the number 3, pupils will explore triangles. They will learn to recognise a triangle and count the 3 sides/ corners.</p> <p>Whilst learning about the number 4, pupils will explore squares. They will learn to recognise a square and count the 4 sides/ corners</p> <p>Pupils will create arrangements using 2D shapes. They will develop their ability to create simple picture using familiar shapes, such as a house/ rocket/ sun etc. Pupils will informally describe the pictures they have made using mathematical language such as: 'sides', 'corners'; 'straight', 'flat', 'round'.</p> <p>Pupils will explore inset boards and simple jigsaws linked to the topic.</p> <p>Pupils will explore weighing using balancing scales. They will explore weighing farm animals and begin to make comparisons as to which animal is heavier or lighter.</p>



Pupils will explore small counting objects, such as pom-poms/ beads and compartment trays (ice cube trays or egg boxes). Pupils will place one object in each compartment and then touch and count each object once.

Recognition and Representing Number

Pupils will continue to work their way through 10 town. This term pupils will be introduced to; Thelma Three/ 3 and Freddie Four/ 4. They will explore the associated songs and stories with each character.

Pupils will identify number representations, including Numicon, objects, pictures, pairs and numerals. Pupils will explore standard representations, such as dice, ten frames and fingers as well as nonstandard representations.

Pupils will begin to represent numbers in their own ways using objects, actions, fingers and marks

Subitising

Pupils will develop their ability to recognise up to 3 objects, in structured arrangements, and say the amount without counting.



Maths		
Spring 2- Teddy Bear's Picnic		
Number	Numerical Patterns	Shape, Space and Measure
<p>One-to-One Correspondence</p> <p>Pupils will continue develop their understanding that when saying the names of the numbers in sequence, each object receives one count and one only one count. Children will have regular opportunities to practise touch counting, in a variety of playful contexts, inside and outdoor, sometimes going to higher numbers.</p> <p>Adults will model counting and make deliberate mistakes, for example counting the same object twice. Children will continue to develop their methods for good ways of counting, for example; touching or moving each object as they count.</p> <p>Pupils will build towers with bricks and blocks and then count each block in their tower. They will develop their ability to make sure that they touch each block only once as they count.</p> <p>Pupils will explore rolling small balls of playdough and placing each one in the square of a Five-Frame or Ten-Frame. They will then squish each playdough ball with their finger as they count.</p> <p>Recognition and Representing Number</p> <p>Pupils will continue to work their way through 10 town. This term</p>	<p>Pupils will continue to explore simple repeated ABAB patterns. They will match objects by colour/ size (such as compare bears) to duplicate and then continue a pre-made pattern.</p>	<p>Pupils will explore inset boards and simple jigsaws linked to the topic.</p> <p>Children will visit Forest School to have a Teddy Bears Picnic. They will recall the route and the order of things seen on the way.</p> <p>Pupils will go on a hunt in the outdoor environment to locate a hidden bear. They will follow positional clues through words alone. For example, 'the next clue is under the slide'. Adults will model the use of spatial words in play, including 'in', 'on', 'under', 'up', 'down', 'besides' and 'between'. Pupils will be encouraged to use these words in their own play to discuss position.</p> <p>Pupils will discuss routes and locations, using words like 'in front of' and 'behind'. They will complete obstacle courses, set up interesting pathways and find hiding places in the outdoor environment. They will develop their ability to describe their route and give directions to each other.</p>



pupils will be introduced to; Fiona Five/ 5 and Seal Six/6. They will explore the associated songs and stories with each character.

Pupils will identify number representations, including Numicon, objects, pictures, pairs and numerals. Pupils will explore standard representations, such as dice, ten frames and fingers as well as nonstandard representations.

Pupils will begin to represent numbers in their own ways using objects, actions, fingers and marks



Maths		
Summer 1 – Amazing Animals		
Number	Numerical Patterns	Space, Shape and Measure
<p>Cardinality</p> <p>Pupils will learn that the last number spoken in a counting sequence names the quantity for that set. Pupils will practise counting things and then repeat the last number. For example: “1, 2, 3 – 3 cars”. Pupils will have regular opportunities to practise touch counting, in a variety of playful contexts, inside and outdoor, sometimes going to higher numbers. Pupils will learn to answer the question ‘How Many?’ saying how many there are in a set with the last number counted.</p> <p>Children will explore small world animals and enclosures. They will be encouraged to place animals within enclosures and then answer the question of ‘How many animals are there?’ by counting each animal, knowing that the final number said tells them the total.</p> <p>Children will use nets and buckets to explore plastic fish/shells/ sea creatures in the water tray. They will be encouraged to catch and collect items and add them to their</p>	<p>Pupils will continue to explore simple repeated ABAB patterns. They will match objects by colour/ size (such as compare bears) to duplicate and then continue a pre-made pattern. Pupils will further explore patterns- developing their ability to recognise patterns and identify missing elements.</p>	<p>Pupils will have regular opportunities to explore construction materials such as blocks and interlocking bricks indoors and outdoors. Adults will model talking about the shapes and how their properties suit the purpose. Pupils will develop their ability to select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.</p> <p>Children will build models using solid 3D shapes- they will talk informally about shape properties and using some mathematical vocabulary such as ‘sharp corner’, ‘pointy’ or ‘curvy’ ‘sides’, ‘corners’; ‘straight’, ‘flat’, ‘round’.</p>



bucket before counting them all to find out how many they caught.

Pupils will explore collections of buttons in different sizes, colours and shapes. They will sort these by different attributes, such as collecting only the big, red buttons, and then count how many there are.

Recognition and Representing Number

Pupils will continue to work their way through 10 town. This term pupils will be introduced to; Sir Seven/7 and Eric Eight/8. They will explore the associated songs and stories with each character.

Pupils will identify number representations, including Numicon, objects, pictures, pairs and numerals. Pupils will explore standard representations, such as dice, ten frames and fingers as well as nonstandard representations.

Pupils will begin to represent numbers in their own ways using objects, actions, fingers and marks



Maths

Summer 2- Wiggle and Grow

Number

Abstraction

Pupils will develop their understanding that it doesn't matter what they count, how they count stays the same. For example, any set of objects can be counted as a set, regardless of whether they are the same colour, shape, size, etc. Pupils will also explore counting non-physical things such as sounds, action and imaginary objects.

Pupils will explore counting actions they can make with their bodies, such as claps, hops, jumps etc.

Pupils will explore bouncing different-sized balls in the outside area and count the number of bounces or throws.

Pupils will practise counting number of objects or pictures out of their reach so that they can count objects that cannot be touched or moved.

Pupils will use musical instrument to make their own music by playing an instrument a number of times. They will be encouraged to count each sound. Pupils will also roll a dice to decide the number of times an instrument should be played

Numerical Patterns

Pupils will continue to explore simple repeated ABAB patterns.

They will match objects by colour/ size (such as compare bears, cotton reals, beads/ threading items etc.) to duplicate and then continue a pre-made pattern. Pupils will further explore patterns- developing their ability to recognise patterns and identify missing elements.

Pupils will explore making their own ABAB patterns using real life resources e.g. sticks, leaves etc.

Pupils will use resources to create their own ABAB patterns. They will explore correcting an error in repeating pattern.

Space, Shape and Measure

Pupils will create arrangements using 2D shapes. They will develop their ability to create simple picture using familiar shapes, such as a house/ rocket/ sun etc. Pupils will informally describe the pictures they have made using mathematical language such as: 'sides', 'corners'; 'straight', 'flat', 'round'.

Pupils will have regular opportunities to explore construction materials such as blocks and interlocking bricks indoors and outdoors. Adults will model talking about the shapes and how their properties suit the purpose. Pupils will develop their ability to select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc.

Children will build models using solid 3D shapes- they will talk informally about shape properties and using some mathematical vocabulary such as 'sharp corner', 'pointy' or 'curvy' 'sides', 'corners'; 'straight', 'flat', 'round'.

Pupils explore technological toys, such as Bee-Bots and the remote-control cars. Pupils will explore routes and describe routes they took using their bee bot e.g. 'first I went forward, then I went backward, now I'm going next to...'



Pupils will go on a hunt in the outside environment to discover 'action cards' alongside numerals for them to complete the given number of actions.

Pupils will explore interesting loose parts, such as corks, spools, glass beads, cardboard tubes, pebbles, bun cases, shells, matchsticks and lollipop sticks in a large tray. Pupils will be encouraged to handle, arrange, touch and place the objects in a five-frame or ten-frame.

Order Irrelevance

Pupils will develop their understanding that the order that items are counted in is irrelevant—left-to-right, right-to-left, in a random fashion—as long as every object in the set is given one count and only one count.

Children will explore clothes and peg on a washing line. They will answer questions such as 'How many clothes are there?'. They will then investigate 'How many are there if you start counting at the other end of the washing line?' and 'How many will there be if the clothes are hung in a different order?'

Pupils will explore and count number of Butterfly Cut-Outs around the outdoor or indoor setting. They will explore if children all began counting at the same butterfly/ if they counted them in the same order and if they counted the same number of butterflies.



Pupils will build towers with two different coloured bricks or blocks to build towers with. Pupils will count the number of bricks in their tower. They will explore how many bricks are there if they count in the opposite direction, and how many bricks there are if they count all of the red ones first and then the blue, and what if they count the blue bricks first

Recognition and Representing Number

Pupils will continue to work their way through 10 town. This term pupils will be introduced to; Nina Nine/9 and Tia Ten/10. They will explore the associated songs and stories for each character.

Pupils will identify number representations, including Numicon, objects, pictures, pairs and numerals. Pupils will explore standard representations, such as dice, ten frames and fingers as well as nonstandard representations.

Pupils will begin to represent numbers in their own ways using objects, actions, fingers and marks

Pupils will go on numeral hunts around the school/ local environment, looking for numerals on busses, door numbers, display boards etc.