

Reception Curriculum – Mathematical Development				Autumn Term
Wk	Development Matters / ELGs	Learning Outcome	Activities	Resources & Vocabulary
1	Baseline Assessments	Baseline Assessments	Baseline Assessments	Baseline Assessments
2				
3				
4	<p>Numbers (<i>Using numbers 1-10, and then 1-20</i>)</p> <p>Children count reliably with numbers from 1-20.</p> <p>Recognise some numerals of personal significance.</p> <p>Recognises numerals 1 to 5.</p> <p>Counts up to three or four objects by saying one number name for each item.</p> <p>Counts actions or objects which cannot be moved.</p> <p>Counts objects to 10, and beginning to count beyond 10.</p>	<p>To recognise numerals 1 – 10.</p> <p>To select the correct numeral to represent 1 to 10 objects.</p> <p>To count up to three or four objects by saying one number name for each item.</p> <p>To count actions or objects which cannot be moved.</p> <p>To count an irregular arrangement of up to 10 objects.</p> <p>To count objects to 10, and then begin to count beyond 10.</p> <p>To count out up to six objects from a larger group.</p>	<p>Direct Teaching</p> <p>Recite numbers to 20 forwards and backwards with a visual number line, from any given number.</p> <p>Match numerals to groups of objects and children.</p> <p>Model counting by pointing and touching each item, and saying a number name for each item.</p> <p>Model counting by moving objects from one place to another.</p>	<p>Resources – Direct teaching</p> <p>Number stick and giant number line</p> <p>Large numerals on cards</p> <p>Unifix cubes, pebbles, sorting fruit and vegetables, real fruit and vegetables</p> <p>Subitising cards and numerals to match</p> <p>Number fishing game</p> <p>Number bingo</p> <p>Counting games – counting spots on a dice or dominoes</p>

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5	<p>Counts out up to six objects from a larger group.</p> <p>Selects the correct numeral to represent 1 to 5, then 1 to 10 objects.</p> <p>Counts an irregular arrangement of up to 10 objects.</p>		<p>Model counting by sorting into groups and then counting the amount in each group.</p> <p>Model counting out objects from a larger group.</p> <p>Numbers in the air/large scale. Provide scarves, light fabric, ribbons on sticks etc.</p> <p><u>Exploration & investigative play</u></p> <p>Pretend play - farms</p> <p>Pretend play – cars</p> <p>Set up an outdoor obstacle course. Label a route with numerals – which obstacle is 1st, 2nd 3rd? When children are proficient in following the course in the correct order, go in the opposite direction.</p> <p>Counting actions e.g. Hops, jumps, clicks or claps.</p> <p>Number hunt – What numbers can the children find? Take photographs.</p> <p>Building towers – How many blocks can the children use to build a tower before it falls?</p>	<p>What's in the box? – boxes with small number of objects in. Shake, predict how many and then count to confirm.</p> <p><u>Resources – Exploration & Investigative play</u></p> <p>Farm - Provide numerals on signs with fields and farm animals e.g. 4 cows, 5 horses, 6 sheep. Add signs with images of animals small numerals on separate cards and blu-tack for children to create own signs. Support and encourage those that want to write their own numerals and signs.</p> <p>Cars - Provide labelled parking bays for toy cars. Label each car and provide children with a road mat, garage, ramps etc. Provide prices for petrol, car parts, road signs, bus stops with numerals and encourage those that want to write their own numerals and signs.</p> <p>Obstacle course – balance beams, arches, mini hurdles, beanbags, cones, bats, balls, hoops, rubber spots, ordinal number cards.</p> <p>Notepads, pencils, iPads.</p> <p>Large wooden blocks/jenga blocks</p> <p><u>Vocabulary</u></p> <p>Number, digit, count, forwards, backwards, amount, total, how many, one, two three... etc</p>
6				

7	<p><u>Shape, space and measures</u></p> <p>Children use everyday language to talk about size.</p> <p>Orders two or three items by length or height.</p>	<p>To order two or three items by length.</p> <p>To order two or three items by height.</p> <p>Use everyday language to talk about size.</p>	<p><u>Direct Teaching</u></p> <p>Model ordering two and then three items by length and using relevant vocabulary.</p> <p>Compare lengths of items directly.</p> <p>Use cubes to measure length by counting the cubes.</p> <p>Model ordering two and then three items by height and using relevant vocabulary.</p> <p>Compare height of children directly.</p> <p>Use large wooden blocks to measure height.</p> <p>Use a height chart to measure height.</p> <p><u>Exploration & investigative play</u></p> <p>Make worms with playdough and measure the length.</p> <p>Build towers of varying heights and measure them.</p> <p>Measure the length of a variety of objects.</p> <p>Compare and measure the height of different plants.</p> <p>Measure own height and height of friends with rubber hands and feet or large blocks.</p> <p>Toppling towers challenge – How high can the children build a tower of wooden blocks before it falls?</p>	<p><u>Direct Teaching - Resources</u></p> <p>Measuring worms, various length of ribbon, scarves, skipping ropes, sticks/twigs, pencils, unifix cubes</p> <p><u>Exploration & investigative play - Resources</u></p> <p>Playdough, unifix cubes, duplo, wooden building blocks, rubber hands and feet</p> <p>Objects to measure and measure with e.g. shoe, bottle, pencil, book, glue stick, cup, lollypop sticks, string, paper strips, cubes, number lines etc.</p> <p>Woodland area/smaller plants for indoors</p> <p><u>Vocabulary</u></p> <p>Size, length, height, longer, longest, taller, tallest, taller than, as long as, shorter, shortest, shorter than, as short as, the same, middle, medium-sized, measure, compare, sort, order</p>
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8	<p>Numbers (<i>Securing numbers 1-10, and then 1-20</i>)</p> <p>Place them in order and say which number is one more and one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.</p> <p>Uses the language of 'more' and 'fewer' to compare two sets of objects.</p> <p>Finds the total number of items in two groups by counting all of them.</p> <p>Says the number that is one more than a given number.</p> <p>Finds one more or one less from a group of up to ten objects.</p> <p>In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting.</p>	<p>To order numbers to 10, and then 20.</p> <p>To understand the relationship between tens and units.</p> <p>To use the language of 'more' and 'fewer' to compare two sets of objects.</p> <p>To find the total number of items in two groups by counting all of them.</p> <p>To say the number that is one more than a given number.</p> <p>To find one more from a group of up to ten, and then 20 objects.</p> <p>To find one less from a group of up to ten, and then 20 objects.</p> <p>To know number bonds to at least 5.</p> <p>To use vocabulary involved in adding and subtracting during practical activities and discussion.</p> <p>To count on when adding using quantities and objects.</p> <p>To count back when subtracting using quantities and objects.</p>	<p>Direct Teaching</p> <p>Compare and order numbers to 20 using number cards. Demonstrate the place value of each number with place value cards, cubes and coins.</p> <p>Demonstrate the relationship between tens and units by partitioning and recombining teen numbers using place value cards, cubes and coins.</p> <p>Model counting 2 sets of objects to compare the amounts and say which has 'more' and 'fewer.'</p> <p>Model counting the number of items in two groups by:</p> <ul style="list-style-type: none"> - Pointing and touching each item, and saying the number name for each item. - Moving each item as you count, saying the number name for each item. <p>Use the number stick, numeral belts and number tracks to find one more and one less.</p> <p>Drop pennies in a tin. The children listen carefully and show one more/less on their fingers.</p> <p>Model finding one more or one less from a group by adding or taking away one object and counting.</p> <p>Use the 'part, part, whole' strategy to find number bonds. Use circles and objects, as well as number cards.</p> <p>Use counting on strategies to add 2 collections, starting with the largest set or number.</p>	<p>Direct Teaching – Resources</p> <p>Number cards, unifix cubes numbers stick, numeral belts and number tracks, place value cards, large coins.</p> <p>Pennies, metal tin.</p> <p>Hoops, objects and number cards to show number bonds.</p> <p>Range of objects to count including glass stones, pebbles, cubes, blocks, large beads.</p>
9				

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<p>10</p>			<p>Model counting backwards when subtracting using quantities and objects and physically taking objects away.</p> <p>Exploration & investigative play</p> <p>Sorting dominoes – find all the dominoes with a total of 6 spots, 7 spots, 8 spots etc.</p> <p>Counting in pretend play – Provide lots of objects to support ordering and counting and extend role-play and imaginative play provision.</p>	<p>Exploration & investigative play – Resources</p> <p>Dominoes, sorting hoops, number cards</p> <p>Vocabulary</p> <p>More, one more, fewer, fewer than, one less, count on, count back, add, add together, plus, take away, subtract, total, altogether, equal, the same as, too many, not enough, how many are left, difference</p>
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11	<p><u>Shape, space and measures</u></p> <p>Explore characteristics of everyday objects and shapes and use mathematical language to describe them.</p> <p>Recognise, create and describe patterns.</p> <p>Beginning to use mathematical names for 'flat' 2D shapes, and mathematical terms to describe shapes.</p> <p>Select a particular named shape.</p> <p>Use familiar objects and common shapes to create and recreate patterns and build models.</p>	<p>To use mathematical names for 2D shapes.</p> <p>To use mathematical terms to describe 2D shapes.</p> <p>To select a particular named shape.</p> <p>To use familiar objects and common shapes to create patterns.</p> <p>To use familiar objects and common shapes to recreate patterns.</p> <p>To recognise and describe patterns.</p> <p>To use familiar objects and common shapes to build models.</p>	<p><u>Direct Teaching</u></p> <p>Teach shape names and describe them. Identify and teach the difference between straight and curved sides and corners. Count the number of sides and corners.</p> <p>Select a particular named shape and explain how they know that they have selected the correct shape.</p> <p>Identify the missing shape from a group.</p> <p>Identify the shape described by an adult.</p> <p>Model using 2D shapes to continue a pattern.</p> <p>Model using 2D shapes to create own pattern using 2 or 3 different shapes.</p>	<p><u>Direct Teaching – Resources</u></p> <p>2D shapes, familiar 2D shaped objects.</p> <p>2D shape sponges, paint.</p>
12			<p><u>Exploration & investigative play</u></p> <p>Identify shapes within the environment. Take photographs of them using the iPads, count the number each shape found.</p> <p>Use 2D shapes to create pictures.</p>	<p><u>Exploration & investigative play – Resources</u></p> <p>iPads</p> <p>2D shapes of various sizes, paper, pencils, felt pens, chalks etc.</p> <p>Flat beads and laces, 2D shapes, 2D shape sponges, paint.</p> <p><u>Vocabulary</u></p> <p>Flat shape, Circle, Triangle, Square, Rectangle, Hexagon, Pentagon, Side, Corner, straight, curved</p>

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