Elmtree Maths Overview - Year N					
Term/ Week	**Area of Focus**	**EYFS LTP in line with Early Years Foundation Stage**	**Teaching Guidance**	**Small Steps (Suggest LO)**	**Key Vocabulary**
Autumn 1&2	**Numerical Pattern / Number**	Begin to compare quantities - Sort, match and label groups Begin to Notice, identify and talk about patterns around them e.g. Clothing, Autumn, colour Begin to copy and talk about a pattern – ABAB, Patterns with objects / actions Begin to recite numbers to 5 Begin to say one number for each item to 3 Join in with number rhymes / songs with props & actions Use some number names in play	**Recognising and naming colours** Children should be taught to recognise and name colours in a variety of contexts e.g. toys within the classroom, colours in nature, colours in the environment, matching colours, colours on themselves such as hair, skin, clothes. Children should be able to say when objects are and are not the same colour. Link to expressive art and design through painting. **Comparing** Children need progressive experiences where they can compare collections and begin to talk about which group has more things. When talking about amounts of objects use the language of more and fewer. Children should initially be taught perceptual comparing (comparing without counting). Initially the groups need to be very obviously different (e.g 2 objects and 7 objects). Move on to collection of small numbers of objects that are similar (e.g 1 and 3 objects) and then move onto different items but same quantity (using language of same or equal). **Sorting** There should be a focus on reasoning within sorting i.e how have you sorted the animals/button etc? Children should be given the opportunity to sort the objects by their own rules and should be taught	Collect objects to compare amounts Make simple comparisons of amounts Look for collections of large and small amounts Compare and talk about large and small amounts Make large and small collections Make collections the same Listen to repeats in songs and stories. Start to join in songs with repeats Start to join in with repeats from stories Clap along to songs Make line patterns with own sequences Look for collections of large and small amounts Hear some number names Join in saying some number names Model saying number names in order Practise saying number names in order Join in stable order counting forwards	Number, One, two, three to twenty and beyond, None Count, on/up/to/from/down Before, after, More, less, many, few, fewer, fewest, smaller, smallest Equal to, the same As, Odd, even, Digit Numeral, Compare, Order Size, Value, Between Number line Add, more, plus, make, sum, total, altogether Double Half, halve Equals, is the same (including equals sign) How many more to make…? How many more is,,, then,,,? How much more is…? Subtract, take away, minus. Listen, join in Say, think, imagine, remember Start from Look at, point to Put What comes next? Find, use, make, build Tell me, describe, pick out, talk about, explain, show me Read, write Tick, draw a line, ring Cost Count, work out Number line, number track, number square, number cards

			how to communicate that rule (e.g. I have sorted the buttons by colour). This should be explored in many different contexts such as shapes, different coloured and size objects, different animals, objects found in the environment, appearance of various objects and people. Children should be taught to verbalise what is the same and what is different between sets of objects (e.g these buttons are pink and these buttons are blue/ they are boys and they are girls). **Pattern** Developing an awareness of pattern helps children to notice and understand mathematical relationships. Children should initially be taught to continue an AB pattern. Children need the opportunity to see a pattern, talk about what they can see and to continue a pattern. At first they may do this one object at a time e.g red cube, blue cube, red cube… verbalising the pattern helps. Children may then be asked to say what they would add next to continue it.	Join in stable order counting backwards Model saying 1, 2 and 3 in play Copy the sequence of 1, 2 and 3 Copy fingers to represent 1, 2 and 3 Begin to count actions Say number names in order Begin to recognise that anything can be counted. Notice images in books Respond to “I see 1, 2, 3” Recognise “I see 1, 2, 3” Copy “I see 1, 2, 3” Point to 1, 2, 3 Recognise 1, 2, 3 in well-known tales.	
	Shape, Space & Measure	Begin to select shapes for appropriate tasks Show interest in shapes in the environment Manipulate and turn shapes	**Size** At this stage only focus on large/big and small/little. Use real life examples of objects that are large and small in relation to each other. Begin with objects that are vastly larger/smaller than each other and move onto objects with a smaller difference in size. Include reasoning e.g. ‘do you think this large tree would fit into my small box?’ **Length and height** In the first stage children should be able to apply the attribute of long, short, tall	Explore and play with shapes Show interest in simple differences between shapes Put shapes and blocks into position Select shapes for a reason Begin to explore and describe natural shapes and objects Find and collect objects for a purpose	Full, half, empty, Holds, Container, weigh, weighs, balance, Heavy, heavier, heaviest, light, lighter, lightest, Scales, Time, Days of the week: Monday, Tuesday, etc. Seasons: Spring, Summer, Autumn, Winter, Days, week, month, year, weekend, Birthday, holiday Morning, afternoon, evening, night, Bedtime, Over, under, underneath, above, below, top, bottom, side, On, in, outside, inside, In front, behind, Front, back, Before, after, Beside, next

		Begin to talk about shapes …. round, pointy, spotty, stripy Begin to Make comparisons between objects using appropriate vocabulary - Size … big / small / bigger / smaller Begin to Understand positional language within daily routine … in / on / under Begin to understand the language of time within the daily routine … next, later, after	etc to various examples (e.g. a bus is long; an adult is tall; grass is short). Adults should be continuously modelling this language. The children should then move on to finding objects that are longer/shorter than a given item. They should be encouraged to utilise strategies such as direct comparison (e.g. placing objects side by side to determine which is longer). When comparing length and height verbally children should be encouraged to use language such as 'taller than/longer than/shorter than'. When comparing lengths directly children need to ensure that they align the starting points and compare like-for-like (e.g. straightening skipping ropes before comparing lengths). **Positional language** Children need opportunities to be exposed to and to use the language of position and direction; Position: 'in', 'on', 'under'. Direction: 'up', 'down', 'across' Children also need opportunities to use terms which are relative: 'in front of, 'behind', 'on top of'. Create as many opportunities as possible to explore this language such as hunting for hidden objects with some prompts (e.g. look behind the shed).		to, Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape, Flat, curved, straight, round, Solid, Corner, Face, side Make, build, draw, Whole, Equal, One half, Listen, join in, Say, think, imagine, remember, Start from, Look at, point to, Put What comes next?Find, use, make, Build, Tell me, describe, pick out, talk about, explain, show me, Read, write, Tick, draw a line, ring, Cost Count, work out, Number line, number track, number square, number cards, dinnertime, playtime Today, yesterday, Tomorrow, Before, after, next, last, Quickest, fastest, Slowest, Clock, Once, First, second, third Estimate, Too many, too few, Length, height, Longer, longest, shorter, shortest, taller, tallest, higher, highest, Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, How much? How many?, Total, Over, under, underneath, above, below, top, bottom, side, On, in, outside, Inside, In front, behind, Front, back, Before, after, Beside, next to Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape, Flat, curved, straight, round, Solid, Corner, Face, side Make, build, draw

Spring 1&2	**Numerical Pattern / Number**	Continue and talk about a pattern – ABAB Recite numbers to 5 Join in with number rhymes to 5 using props and fingers Find the group with more / the same / less Use fingers to represent numbers with increasing accuracy Use some numbers names in play with some accuracy Sort and match objects accordingly e.g. size / shape Begin to compare quantities using … more than / fewer than Fast recognition of objects up to 1 and sometimes 2 – subitising	**Counting principles** **1.** The one-one principle – this involves children assigning one number name to each objects that is being counted. Children need to ensure that they count each objects that is being counted only once ensuring that they have counted every object. Children will sometimes count objects more than once or miss an object out that needs to be counted. Encourage children to line up objects and touch each one as they count saying one number name for each object. This will also avoid children counting more quickly than they touch the objects which again shows that they have not grasped one-one correspondence. When counting pictures children should use the strategy of drawing a line through each picture as they count it. Children should be taught number names through number songs and general counting. **2.** The stable-order principle – children understand when counting that the numbers have to be said in a certain order. Children need to know all the number names for the amount in the group they are counting. Teachers can therefore encourage children to count aloud to larger numbers without expecting them to count that number of objects immediately. The order of numbers should be reinforced through number songs and daily counting activities. **3.** The cardinal principle – Children understand that the number name assigned to the final object in a group is the total number of objects in that group.	Join in with repeated actions in songs Join in with repeats in songs and stories Sing some refrains independently Have a sense of daily routines Say what happens next Look for collections of art Copy fingers to show 1 Copy fingers to show 2 Copy fingers to show 3 Show 1 finger when seeing 1 item in stories Show 2 or 3 fingers when seeing 2 or 3 in stories Show 1, 2,3 on fingers when asked. Make actions when saying counting words Move fingers when saying counting words Count out up to 3 objects from rhymes Notice number symbols as labels Label amounts as 1 and not 1 Label amounts as 1, 2, or 3. Explain simple pattern arrangements Make roads and bridges with intent Choose blocks to copy simple creations Make simple line patterns with objects Make simple pattern arrangements Show an interest in patterns and shapes	Full, half, empty, Holds, Container, weigh, weighs, balance, Heavy, heavier, heaviest, light, lighter, lightest, Scales, Time, Days of the week: Monday, Tuesday, etc. Seasons: Spring, Summer, Autumn, Winter, Days, week, month, year, weekend, Birthday, holiday Morning, afternoon, evening, night, Bedtime, Over, under, underneath, above, below, top, bottom, side, On, in, outside, inside, In front, behind, Front, back, Before, after, Beside, next to, Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape, Flat, curved, straight, round, Solid, Corner, Face, side Make, build, draw, Whole, Equal, One half, Listen, join in, Say, think, imagine, remember, Start from, Look at, point to, Put What comes next?Find, use, make, Build, Tell me, describe, pick out, talk about, explain, show me, Read, write, Tick, draw a line, ring, Cost Count, work out, Number line, number track, number square, number cards, dinnertime, playtime Today, yesterday, Tomorrow, Before, after, next, last, Quickest, fastest, Slowest, Clock, Once, First, second, third Estimate, Too many, too few, Length, height, Longer, longest, shorter, shortest, taller, tallest, higher, highest, Money, coin,

		Begin to count up to sets of 5 objects (1:1 correspondence) Begin to represent numbers with marks	In order to grasp this principle, children need to understand the one-one and stable-order principles. From a larger group, children select a given number and count them out. When asked 'how many?' children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again. **4.** The abstraction principle – this involves children understanding that anything can be counted including things that cannot be touched including sounds and movements. When starting to count many children rely on touching the objects in order to count accurately. Teachers can encourage abstraction on a daily basis by counting claps or clicks. **5**. The order-irrelevance principle – this involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number. Encourage children to count objects left to right, right to left, top to bottom, bottom to top. Once children have counted a group, move the objects and ask children how many there are. If they count them all again they have not fully grasped this principle.		penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, How much? How many?, Total, Over, under, underneath,
	Shape, Space & Measure	Select shapes appropriately in a range of contexts Begin to combine shapes to make new ones Talk about shapes	**Shapes** The primary focus in relation shapes should be on the properties of shapes. For example, children should be encouraged to notice and describe shapes in the environment and talk about the properties using words such as 'straight/flat/round/curved'. When teaching the names of shapes, wherever possible, real life shapes in the environment should be used. Note that	Respond to simple language of position Arrange blocks in a chosen position Select shapes for a space Recognise when 2 objects are the same shape Explore and describe shapes and objects Look for collections of large and small amounts	above, below, top, bottom, side, On, in, outside, Inside, In front, behind, Front, back, Before, after, Beside, next to Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape, Flat, curved, straight, round, Solid, Corner, Face, side

		Make comparisons between objects using appropriate vocabulary Understand positional language Begin to use some language of time within the daily routine Begin to describe a sequence of events … first, next	only flat surfaces should be referred to as faces. Include sorting of natural shapes; the children may sort stones, for example, into sets that have straight edges, sets that have curved edges etc. **My Day** Children should explore talking about and ordering the events of their day such as waking up, coming to school, dinner, bed time. Encourage the vocabulary of first, next, then and possibly last.	Explore shape resources Explore more complex inset jigsaws Talk about simple positions Move into simple positions Follow simple small-world routes	Make, build, draw
Summer 1&2	**Numerical Pattern / Number**	Extend and create ABAB patterns Recite and recognise numbers past 5 Fast recognition of up to 3 objects - subitising Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in		Choose a group to count Take out 2 from a group Take out 3 from a group Give others 2 items Give others 3 items Count 3 objects with one-to-one correspondence Become familiar with dot patterns. Say when there is 1 dot Say when there are 2 dots Recognise 1 and 2 in different arrangements. Say when there are 3 dots. Recognise 1, 2 and 3 in different arrangements. Notice when two collections are the same Make collections of small objects he same	, Flat, curved, straight, round, Solid, Corner, Face, side Make, build, draw, Whole, Equal, One half, Listen, join in, Say, think, imagine, remember, Start from, Look at, point to, Put What comes next?Find, use, make, Build, Tell me, describe, pick out, talk about, explain, show me, Read, write, Tick, draw a line, ring, Cost Count, work out, Number line, number track, number square, number cards, dinnertime, playtime Today, yesterday, Tomorrow, Before, after, next, last, Quickest, fastest, Slowest, Clock, Once, First, second, third Estimate, Too many, too few, Length, height, Longer, longest, shorter, shortest, taller, tallest, higher, highest, Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent,

		total (‘cardinal principle’). Show ‘finger numbers’ up to 5. Link numerals and amounts up to 5 Experiment with own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5		Make collections of large objects the same Recognise two collections are the same using large and small objects. Sort and talk about their own collections **Block 17**	pay, change, How much? How many?, Total, Over, under, underneath, above, below, top, bottom, side, On, in, outside, Inside, In front, behind, Front, back, Before, after, Beside, next to Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Make, build, draw

	Shape, Space & Measure	Compare quantities using language: 'more than', 'fewer than' Talk about and explore 2D and 3D shapes Understand position through words Make comparisons between objects relating to size, length, weight and capacity Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Combine shapes to make new ones Talk about and identifies the patterns around them. Extend and create ABAB patterns Begin to describe a sequence of events, real or fictional, using	**See previous Term's Teaching Guidance** **Weight** Initially begin with identifying objects the children think may be heavy – use lots of adult modelled language. Move on to comparing weights. One way to identify this is to identify that a heavier object creates a greater downwards pull. Ask children to hold a carrier bag; encourage them to notice if it feels as though their hand is being pulled down when something heavy is put in it. Place a carrier bag in each hand and identify which one is heavier by discussing which arm feels more pulled down. Explore the link to the balance scales to show that the heavier side goes down. Exemplify this with a see-saw 'What can we do to make this side of the see-saw go down?'. Ensure that children are presented with large but light objects and small but heavy objects to prevent the generalisation that big means heavy and small means light. **Capacity** Children should be given daily opportunity for sand and water play which can provide lots of opportunities to explore capacity. Children should be able to identify when a container is empty and full, and extend to half full. Initially children should be exposed to the comparison of full, half full, empty using the same container. However this can be moved on by talking about different size containers (e.g. I wonder whose pot will hold the most water?' When comparing capacities directly children can pour from	Match simple shapes Push some shapes and blocks together Make simple arrangements Follow simple routes outside Follow toys around a simple route	Shape, Flat, curved, straight, round, Solid, Corner, Face, side Full, half, empty, Holds, Container, weigh, weighs, balance, Heavy, heavier, heaviest, light, lighter, lightest, Scales, Time, Days of the week: Monday, Tuesday, etc. Seasons: Spring, Summer, Autumn, Winter, Days, week, month, year, weekend, Birthday, holiday Morning, afternoon, evening, night, Bedtime, Over, under, underneath, above, below, top, bottom, side, On, in, outside, inside, In front, behind, Front, back, Before, after, Beside, next to, Middle, Up, down, forwards, backwards. Sideways, Close, far Through, Towards, away, from, Side, roll, turn, Sort, Cube, cuboid, pyramid, sphere, cone, cylinder, circle, triangle, square Shape

		words such as ‘first’, ‘then...’	one container to another to find which holds more or less water.		