Nursery Maths - Knowledge and Skills Progress Model

(using White Rose, NCETM, Number Blocks and Maths hub F1 research)

ELG: Numbers	ELG: Shape, Space and Measure
Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or 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. They solve problems, including doubling, halving and sharing.	Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Autumn

Baseline – first 5 weeks.

Numeral 1
➢ Understanding what 'one' means.
➢ Select one object from a larger group.
➢ Recognise the numeral 1
➢ Represent 1 in different ways
➢ Subitise 1
➢ Make comparisons between 1 and more than 1.
➢ To place one object on a 5 frame.

Numeral 2
➢ Understand 2 is the number after 1 (1 more than)
➢ Understand what 2 means
➢ Select 2 from a larger group
➢ To chant to 2
➢ To recognise numeral 2
➢ To represent 2 in different ways
➢ To subitise 2
➢ To compare 2 groups – which has fewer/more
➢ To know when one more or less is needed to make the desired total.
➢ Count 2 objects accurately.
➢ To place 2 objects on a 5 frame

Numeral 3
➢ Understand 3 is the number after 2 (1 more than)

2D shape
➢ Circle – naming a circle when shown.
➢ Use a circle appropriately for pictures/models.
➢ To select a circle from a group of shapes.
➢ Begin to be aware that a circle has no corner and one side.

Sorting
➢ To sort into one of 2 groups – for instance colour.

Pattern
➢ To replicate a 2 stage pattern.
➢ Be able to talk about a 2 stage pattern.
➢ To finish a 2 stage pattern.
➢ To talk a pattern through from start to finish.

2D shape
➢ Triangle – naming a circle when shown.
➢ Use a Triangle appropriately for pictures/models.
➢ To select a Triangle from a group of shapes.
➢ Begin to be aware that a Triangle has 3 corners and 3 sides.
· Sorting
➢ To sort by a given criteria – triangle or circle?

	➢ Understand what 3 means ➢ Select 3 from a larger group ➢ To chant to 3 ➢ To recognise numeral 3 ➢ To represent 3 in different ways ➢ To subitise 3 ➢ Count 3 objects accurately ➢ To know that 2 is one less than 3. ➢ Know the amount doesn't change if don't add or take anything away. ➢ To place 3 objects on a 5 frame	**Length/height** ➢ To order 3 things by height/length.
Spring	**Numeral 4** ➢ understand the concept of 4, ➢ see when there are 4 items (subitise) ➢ count 4 objects ➢ see that 4 can represent actions as well as physical objects ➢ Recognise more and fewer than 4. ➢ To chant to 4 ➢ To compare amounts by applying a matching strategy. ➢ To match quantity to amount up to 4. ➢ Understand fingers represent objects in a rhyme. ➢ Understand that taking one away is the same as making one less. ➢ To compare amounts, knowing which is the same, which is more and which is fewer. ➢ To notice similarities and differences. ➢ To understand how to make a given number by adding or taking away 1 object. ➢ To know that a single object can be split onto similar sized parts and then recombined to make the whole. ➢ To know that a given number can be made by adding different amounts together. ➢ To place 4 objects on a 5 frame **Numeral 5**	**2D shape** ➢ Name a square and an oblong ➢ Know what a corner is on a 2D shape ➢ Know what a side is on a 2D shape. ➢ To select an oblong and a square from a selection of shapes. ➢ To use shapes appropriately. **Sorting** ➢ To sort shapes according to whether they have corners or not. ➢ To notice similarities and difference between objects. **Measures** ➢ Days of the week. ➢ Sequencing pictures and events ➢ Spotting mistakes in sequencing of pictures/events. **Capacity** ➢ To identify and say when a container is full and empty. ➢ To fill a container so that it is full. ➢ To empty a container so that it is empty. ➢ To order 3 containers for capacity. ➢ To know which container has more/less.

	➢ understand the concept of 5, ➢ see when there are 5 items (subitise) ➢ count 5 objects accurately. ➢ see that 5 can represent actions as well as physical objects ➢ Recognise more and fewer than 5. ➢ To chant to 5 ➢ To compare amounts by applying a matching strategy. ➢ To match quantity to amount up to 5. ➢ Understand fingers represent objects in a rhyme. ➢ Understand that taking one away is the same as making one less. ➢ To compare amounts, knowing which is the same, which is more and which is fewer. ➢ To understand how to make a given number by adding or taking away 1 object. ➢ To know that a given number can be made by adding different amounts together. ➢ To represent numbers 0-5 on a 5 frame.	
Summer	**Continue with Numeral 5 from previous half term** Recap and application of numerals 1-5 ➢ Planning to be designed around the needs of the cohort.	**Positional Language** ➢ To respond correctly to the positional language – in, on, under, in front, behind, next to. ➢ To begin to use some positional language. **2D shape** ➢ Recap 2D shape, teaching to be based on the needs of the cohort. **Weight** ➢ To compare 2 items for weight saying which one is heavy and which one is light.