Maths progress model for knowledge and skills 2s - primary

Concept:	End of 2s	End of F1	ELGs - end of F2	Links to KS1
Verbal Counting. Learning the standard sequences of number words.	Join in with counting everyday contexts, sometimes skipping numbers.	**Count 1 to 10**	Verbally count beyond 20, recognising the pattern of the counting system	See NC Yr 1 Programme of study: Number – Number and Place Value Number addition and subtraction Number Multiplication and Division Number - Fractions
Number Recognition. Recognise numbers	Recognise own age number	Recognise **numbers** 1-5	Have a deep understanding of numbers to 10 including the composition of number	
Object Counting. Creating a one-to-one correspondence between a number word and an item	Join in with counting in everyday contexts by saying some numbers in sequence.	Count 1 to 5 items consistently, knowing that the last counting word tells **"how many**"		
Representing Numbers Showing an amount using fingers, marks/pictures on paper	Take part in finger rhymes with numbers.	Show finger numbers up to 5		
Subitising Numbers. Instantly "seeing how many" supports counting, comparing, and adding.	See groups of one and 2 "quick recognition"	See **groups** of 1 to 3	Subitise (recognise quantities without counting) up to 5.	
Comparing Numbers. Comparing & ordering builds on non-verbal knowledge & experience with real collections.	Compare amounts, saying **'lots'**, **'more'**, or **'same'**.	Use counting or **matching** to **compare** two collections one to five, despite distracting appearances	Automatically recall number bonds up to 5 (including subtraction facts) and some number facts to 10 including doubles 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 to 10, including odd and evens, double facts and how quantities can be distributed equally.	
Adding and Subtracting. Solving problems using informal strategies is critical in learning arithmetic.	React to changes of amount in a group of up to three items.	**Solve** and make problems practically using **calculations** to five e.g. *"**How many altogether**?"*		
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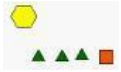
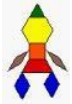
Shapes. Geometric shapes can be used to represent and understand objects in the world around us.	Match shapes, first with same size and orientation, then with different sizes and orientation	Talk about, explore and name basic **2D shapes**, including more complex such as semi-circle, diamond etc. (**3D shapes** more able)	Can name oval, pentagon, octagon, hexagon	Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres
Problem Solving/Putting Together Shapes. Shapes can be decomposed and composed into other shapes and structures.	Use shapes in isolation to make a picture  Complete inset puzzles	Makes a picture by combining shapes to make new ones 	Explores corners & sides of basic 2d shapes. Can correctly recognise & name some 3D shapes e.g. sphere, cone, cylinder, cuboid & cube Is beginning to explore other shapes e.g. pyramids & triangular prisms	
Locations, Directions, and Coordinates. Mathematics can precisely specify directions, routes, & locations in the world.	Understand and use ideas such as **in, *over*, *under*, *above*, *on* , *next to, behind, between***	Describe a familiar **route**. Understand/use **positional** language to describe where something is.	Can follow instructions using positional language. Uses vocabulary such as 'over', 'above', 'beneath', 'beside'	Describe position, direction and movement, including whole, half, quarter and three-quarter turns
Symmetry. Symmetry can be used to analyse, understand, & create shapes in geometry and art.	Use shapes in isolation to make a picture	Show awareness of **symmetry** in block buildings or butterfly wings		
Measurement. Measuring can be used to specify & compare "how much."	Develop language such as ***bigger*, *longer*, *little, heavy* and *taller*** Compare **sizes, weights** etc using gesture and language. Becomes familiar with events in a day through routines / visual timetables.	Discuss and compare attributes informally. Compare **length** using another object. Measure with multiple copies of a unit (such as blocks) Knows and talks about the events in a day through routines / visual timetables. Develops an awareness of **money** through role play	Can order three items by length/height using non-standard measures Uses 'biggest', 'smallest', 'shortest' &'tallest' Can order three items by weight using non-standard measures. Uses 'heaviest', 'lightest' Can order three items by capacity using non-standard measures Uses 'full', 'empty', 'half empty' Begins to use language before, after, yesterday, today, tomorrow Talks about the different ways we can pay for things. Recognises that there are different coins. Can pay for items using 1p coins	Compare, describe and solve practical problems for lengths and heights Compare, describe and solve practical problems for mass/weight Compare, describe and solve practical problems for capacity and volume Recognise and use language relating to dates, including days of the week, weeks, months and years Recognise and know the value of different denominations of coins and notes
Patterns. Patterns weave through all other topics in mathematics.	Notice **patterns** and arrange things in patterns.	Continue and copy simple AB **repeating patterns**	Continues, copies and recreates repeated patterns ABBC & AABB and extend this and spot errors	