Mathematics

Birth to 5 Matters [Range 4 (24-36 months), Range 5 (36-48 months), Range 6 (48-60 months, 60-71 months)]

Development Matters [Birth to three, 3 and 4 year olds, Children in Reception]

National Curriculum [Year 1]

EYFS Statutory Framework: *Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.*

ELG: Number Children at the expected level of development will: - Have a deep understanding of number to 10, including the composition of each number; - Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

ELG: Numerical Patterns Children at the expected level of development will: - Verbally count beyond 20, recognising the pattern of the counting system; - 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 up to 10, including evens and odds, double facts and how quantities can be distributed equally.

	Preschool	Nursery	Reception	KS1 Links
Number	- Beginning to count on their fingers	- Begin to recognise numerals 0 to 10 - Subitises one, two and three objects (without counting) - Links numerals with amounts up to 5 and maybe beyond - Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same	- Increasingly confident at putting numerals in order 0 to 10 (ordinality) - Subitises up to 5 - Matches the numeral with a group of items to show how many there are (up to 10) - Explore the composition of numbers to 10. - Automatically recall number bonds for numbers 0–5 and some to 10.	Pupils should be taught to: - read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs - represent and use number bonds and related subtraction facts within 20 - add and subtract one-digit and two-digit numbers to 20, including zero
Numerical Pattern	- Beginning to compare and recognise changes in numbers of things, using	- Compares two small groups of up to five objects, saying when there are the same	- Uses number names and symbols when comparing	Pupils should be taught to: - count to and across 100, forwards and

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	words like more, lots or 'same' - Begins to say numbers in order, some of which are in the right order (ordinality) - Take part in finger rhymes with numbers.	number of objects in each group, e.g. You've got two, I've got two. Same! - Recite numbers past 5. - Show 'finger numbers' up to 5. - Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. - Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) - Beginning to recognise that each counting number is one more than the one before	numbers, showing interest in large numbers - Estimates of numbers of things, showing understanding of relative size - Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 - Understand the 'one more than/one less than' relationship between consecutive numbers.	backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens - given a number, identify one more and one less - identify and represent numbers using objects and pictorial representations - read and write numbers from 1 to 20 in numerals
Shape, Space, and Measure	- Responds to some spatial and positional language - Chooses puzzle pieces and tries to fit them in - Recognises that two objects have the same shape - Makes simple constructions - Explores differences in size, length, weight and capacity - Beginning to anticipate times of the day such as mealtimes or home time	- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. - Understand position through words alone – for example, "The bag is under the table," – with no pointing. - Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes	- Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes - Spots patterns in the environment, beginning to identify the pattern "rule" - Becomes familiar with measuring tools in everyday experiences and play - Is increasingly able to order and sequence events using everyday language related to time - Continue, copy, and create repeating patterns.	Pupils should be taught to: - measure and begin to record the following: lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) - recognise and know the value of different denominations of coins and notes - recognise and name common 2-D and 3-D shapes

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		- Explores and adds to simple linear patterns of two or three repeating items, e.g., stick, leaf (AB) or stick, leaf, stone (ABC) - In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items	- Compare length, weight and capacity.	