**Mathematics - Mastering Number Overview.**

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| **Strand/****Half-term** | **Subitising** | **Cardinality, ordinality and counting** | **Composition** | **Comparison** |
| **1****Children will:** | * perceptually subitise within 3
* identify sub-groups in larger arrangements
* create their own patterns for numbers within 4
* practise using their fingers to represent quantities which they can subitise
* experience subitising in a range of contexts, including temporal patterns made by sounds.
 | * relate the counting sequence to cardinality, seeing that the last number spoken gives the number in the entire set
* have a wide range of opportunities to develop their knowledge of the counting sequence, including through rhyme and song
* have a wide range of opportunities to develop 1:1 correspondence, including by coordinating movement and counting
* have opportunities to develop an understanding that anything can be counted, including actions and sounds
* explore a range of strategies which support accurate counting.
 | * see that all numbers can be made of 1s
* compose their own collections within 4.
 | * understand that sets can be compared according to a range of attributes, including by their numerosity
* use the language of comparison, including ‘more than’ and ‘fewer than’
* compare sets ‘just by looking’.
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| **2****Children will:** | * continue from first half-term
* subitise within 5, perceptually and conceptually, depending on the arrangements.
 | * continue to develop their counting skills
* explore the cardinality of 5, linking this to dice patterns and 5 fingers on 1 hand
* begin to count beyond 5
* begin to recognise numerals, relating these to quantities they can subitise and count.
 | * explore the concept of ‘wholes’ and ‘parts’ by looking at a range of objects that are composed of parts, some of which can be taken apart and some of which cannot
* explore the composition of numbers within 5.
 | * compare sets using a variety of strategies, including ‘just by looking’, by subitising and by matching
* compare sets by matching, seeing that when every object in a set can be matched to one in the other set, they contain the same number and are equal amounts.
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| **3****Children will:** | * increase confidence in subitising by continuing to explore patterns within 5, including structured and random arrangements
* explore a range of patterns made by some numbers greater than 5, including structured patterns in which 5 is a clear part
* experience patterns which show a small group and ‘1 more’
* continue to match arrangements to finger patterns.
 | * continue to develop verbal counting to 20 and beyond
* continue to develop object counting skills, using a range of strategies to develop accuracy
* continue to link counting to cardinality, including using their fingers to represent quantities between 5 and 10
* order numbers, linking cardinal and ordinal representations of number.
 | * continue to explore the composition of 5 and practise recalling ‘missing’ or ‘hidden’ parts for 5
* explore the composition of 6, linking this to familiar patterns, including symmetrical patterns
* begin to see that numbers within 10 can be composed of ‘5 and a bit’.
 | * continue to compare sets using the language of comparison, and play games which involve comparing sets
* continue to compare sets by matching, identifying when sets are equal
* explore ways of making unequal sets equal.
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| **4****Children will:** | * explore symmetrical patterns, in which each side is a familiar pattern, linking this to ‘doubles’.
 | * continue to consolidate their understanding of cardinality, working with larger numbers within 10
* become more familiar with the counting pattern beyond 20.
 | * explore the composition of odd and even numbers, looking at the ‘shape’ of these numbers
* begin to link even numbers to doubles
* begin to explore the composition of numbers within 10.
 | * compare numbers, reasoning about which is more, using both an understanding of the ‘howmanyness’ of a number, and its position in the number system.
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| **5****Children will:** | * continue to practise increasingly familiar subitising arrangements, including those which expose ‘1 more’ or ‘doubles’ patterns
* use subitising skills to enable them to identify when patterns show the same number but in a different arrangement, or when patterns are similar but have a different number
* subitise structured and unstructured patterns, including those which show numbers within 10, in relation to 5 and 10
* be encouraged to identify when it is appropriate to count and when groups can be subitised.
 | * continue to develop verbal counting to 20 and beyond, including counting from different starting numbers
* continue to develop confidence and accuracy in both verbal and object counting.
 | * explore the composition of 10.
 | * order sets of objects, linking this to their understanding of the ordinal number system.
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| **6** | In this half-term, the children will consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers. |
| **Impact - By the end of the Reception year it is our intention that all children should be able to –** - 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. - 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.  |