






## MATHS TREES OF KNOWLEDGE AND SKILLS PROGRESSION

### EYFS - NUMBER

	Nursery	Reception Autumn Term	Reception Spring Term	Reception Summer term
Knowledge	<ul style="list-style-type: none"> <li>Know how many are in a group of up to 3 objects without counting (subitise)</li> <li>Know the names of numbers in order to 5</li> <li>Know that the last number reached when counting objects tells you how many there are (cardinal principle)</li> <li>Know which numerals match a group of up to 3 objects</li> <li>Know and understand 'more than' and 'fewer than'</li> <li>Know at least 3 counting rhymes - Five Current Buns, Five Little Speckled Frogs, and Five Little Ducks</li> </ul>	<ul style="list-style-type: none"> <li>Know how many are in a group of up to 5 objects without counting (subitise)</li> <li>Know that objects can be sorted, matched and compared</li> <li>Know how 1, 2, 3 and then 4 and 5 are represented</li> <li>Know that 1, 2, and 3 can be compared</li> <li>Know the composition of 1, 2, and 3</li> <li>Know the '1:1 principle' – that you assign one number name to each object that is being counted, that you count each object only once and count every object in the group</li> <li>Know the 'stable order principle' – that when counting the numbers have to be said in a certain order</li> <li>Know the 'cardinal principle' – that the number name assigned to the final object in the group is the total number of objects in that group</li> <li>Know the 'abstraction principle' – that anything can be counted, including things that cannot be touched, such as sounds and movements (e.g. jumps)</li> </ul>	<ul style="list-style-type: none"> <li>Know how many are in a group of up to 10 objects without counting (subitise)</li> <li>Know the composition of 4 and 5</li> <li>Know that numbers to 5 can be compared</li> <li>Know the composition and representation of 'zero'</li> <li>Know the counting principles (demonstrate rather than articulate them)</li> <li>Know and understand 'more', 'fewer' and 'the same amount' in relation to groups of objects</li> </ul>	<ul style="list-style-type: none"> <li>Know that all quantities are composed of smaller quantities</li> <li>Know what comes before or after a given number to 10 (and beginning to know beyond 10)</li> <li>Know, by heart, the sequence of numbers to 10 (and beginning to know beyond 10)</li> </ul>

		<ul style="list-style-type: none"> <li>• Know the 'order-irrelevance principle' – that the order that we count a group of objects is irrelevant</li> <li>• Know and understand how to find 'one more' and 'one less' up to 3</li> <li>• Know at least 5 counting rhymes - Five Current Buns, Five Little Men in Flying Saucer, Five Little Monkeys and One Elephant Went out to Play</li> <li>• Know and understand the meaning of 'more', 'less' and 'the same'</li> </ul> 		
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<div> <b>Skills</b> </div> 	<ul style="list-style-type: none"> <li>• Subitise up to 3 objects</li> <li>• Recite numbers to 5 and beyond</li> <li>• Say one number for each object 1 – 5</li> <li>• Show finger numbers up to 5</li> <li>• Link numerals to amounts (up to 5 objects)</li> <li>• Experiment with mark-making (own symbols, marks, numerals)</li> </ul>	<ul style="list-style-type: none"> <li>• Count forwards and backwards accurately to 5</li> <li>• Use the counting principles in their play and use these as a provocation for independent learning and challenge</li> <li>• Order digit cards 1-5</li> <li>• Use mark-making to represent numbers to 5</li> <li>• Represent numbers to 5 in different ways</li> <li>• Represent five objects in a five frame and understand that if the frame is full they have five</li> <li>• Count out groups of objects up to 10, from a larger group</li> <li>• Share traditional tales, sequential picture books and counting stories in a group with an adult and use these as a provocation for independent learning</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to use and apply the counting principles accurately, extending with up to 10 objects</li> <li>• Represent numbers to 10 in different ways</li> <li>• Count out groups of objects up to 10, from a larger group</li> <li>• Order digit cards 1-10</li> <li>• Use tens frames, fingers and bead strings to subitise to 10</li> <li>• Use mark-making to represent numbers to 10</li> <li>• Continue to make comparisons by lining items up with 1:1 correspondence or by counting each set carefully and comparing their position in the counting order</li> <li>• Compare 2, then 3 and then more groups of objects to identify 'more', 'less' and 'the same amount'</li> <li>• Explore number bonds to 10 using real objects in different contexts</li> <li>• Share further traditional tales, sequential picture books and counting stories in a group with an adult and use these as a provocation for independent learning</li> </ul>	<ul style="list-style-type: none"> <li>• Practise and consolidate key skills in a range of contexts:             <ul style="list-style-type: none"> <li>○ Subitising (up to 6 in a variety of representations)</li> <li>○ Counting (on and back within 10) – counting objects in a set and a given number of objects from a larger group</li> <li>○ Composition (smaller quantities within larger quantities)</li> <li>○ Sorting and Matching in new contexts (noticing similarities and differences)</li> <li>○ Comparing and Ordering (finding which has 'more', 'fewer' or the 'same amount')</li> </ul> </li> <li>• Practise problem-solving activities to deepen thinking, linked to stories, children's own ideas and problems that arise from play</li> <li>• Share further traditional tales, sequential picture books and counting stories in a group with an adult and use these as a provocation for independent learning</li> </ul>
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