EYFS (Preschool and Reception) Maths Overview

Rise
Flourish & Succeed

<table>
<tr>
<td>Preschool</td>
<td><u>Number</u>
• Develop fast recognition of up to 3 objects, without having to count them individually (‘subitising’).
• Show ‘finger numbers’ up to 5.</td>
<td><u>Numerical Patterns</u>
• Say one number for each item in order: 1,2,3,4,5.
• Recite numbers past 5.
• Know that the last number reached when counting a small set of objects tells you how many there are in total (‘cardinal principle’).
• Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
• Experiment with their own symbols and marks as well as numerals.
• Solve real world mathematical problems with numbers up to 5.
• Compare quantities using language: ‘more than’, ‘fewer than’</td>
<td><u>Spatial Awareness</u>
• Understand position through words alone – for example, “The bag is under the table,” – with no pointing.
• Describe a familiar route.
• Discuss routes and locations, using words like ‘in front of’ and ‘behind’

<u>Shape</u>
• 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’.
• Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc
• Combine shapes to make new ones – an arch, a bigger triangle, etc.
• Use informal language like ‘pointy’, ‘spotty’, ‘blobs’, etc.</td>
<td><u>Measures</u>
• Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’
• Make comparisons between objects relating to size, length, weight and capacity

<u>Pattern</u>
• Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper.
• Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern.</td>
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<tr>
<td>Reception</td>
<td colspan="3">• Count objects, actions and sounds.
• Subitise.
• Link the number symbol (numeral) with its cardinal number value.
• Count beyond ten.
• Compare numbers.
• Understand the ‘one more than/one less than’ relationship between consecutive numbers.
• Explore the composition of numbers to 10.
• Explore the composition of numbers to 10.
• Automatically recall number bonds for numbers 0–10.
• Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
• Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
• Continue, copy and create repeating patterns.
• Compare length, weight and capacity.</td>
<td>ELG</td>
<td>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.</td>
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Nursery Year Overview White Rose					
	Subitising	**Counting**	**Comparison**	**Shape, Space and Measure**	**Pattern**
Autumn **Children will:**	**Subitising 1: I see 1,2,3** Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').	**Counting 1: Hear and say number rhymes** Recite numbers past 5. **Counting 2: Begin to order number names** Recite numbers past 5.	**Comparison 1: More than, fewer than, same** Compare quantities using language: 'more than', 'fewer than'.	**Shape, Space and Measure 1: Explore and build with shapes and objects** 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'. **Shape, Space and Measure 2: Explore Position and space** Understand position through words alone – for example, "The bag is under the table," – with no pointing.	**Pattern 1: Explore repeats** Notice patterns and arrange things in patterns. **Pattern 2: Join in with repeats** Notice patterns and arrange things in patterns.
Spring **Children will:**	**Subitising 2: Show me 1,2,3** Develop fast recognition of up to 3 objects, without having to count them individually ('subitising') Experiment with their own symbols and marks as well as numerals. **Subitising 3: Talk about dots** Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').	**Counting 3: Move and label 1,2,3** Say one number for each item in order: 1,2,3,4,5. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). **Counting 4: Take and give 1,2,3** Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').	**Comparison 2: Compare and sort collections** Compare quantities using language: 'more than', 'fewer than'	**Shape, Space and Measure 3: Explore position and routes** Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind' **Shape, Space and Measure 4: Match, talk, push and pull** Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' Make comparisons between objects relating to size, length, weight and capacity	**Pattern 3: Explore Patterns** Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper.

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Summer **Children will:**	**Subitising 4: Makes games and actions** • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').	**Counting 5: Show me 5** • Show 'finger numbers' up to 5. • Solve real world mathematical problems with numbers up to 5. **Counting 6: Stop at 1,2,3,4,5** • Say one number for each item in order: 1,2,3,4,5. • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').	**Comparison 3: Match, sort and compare** Compare quantities using language: 'more than', 'fewer than'	**Shape, space and measure 5: Start to puzzle** Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc Combine shapes to make new ones – an arch, a bigger triangle, etc. Use informal language like 'pointy', 'spotty', 'blobs', etc.	**Pattern 4: Leads on own repeats** Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. **Pattern 5: Making Patterns together** Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. **Pattern 6: My own pattern** Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern.

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Week	Programme	Teaching Content – Direct Maths teach 5 times a week					
Week 1 - 3	**White Rose**	Baseline	Baseline	**Talk About Measure and Patterns 6**			
Week 4 -7	**NCTEM** Term 1 Week 1-10	**Subitising** Week 1	**Counting, Cardinality and ordinality** Week 2	**Composition** Week 3	**Subitising** Week 4	**Comparison** Week 5	
Week 8-11		**Counting, Cardinality and ordinality** Week 6	**Comparison** Week 7	**Composition** Week 8	**Composition** Week 9	**Counting, Cardinality and ordinality** Week 10	
Week 12-13	**White Rose**	**Circle and Triangles 4**	**Shapes with 4 sides 4**				
Week 14- 17	**NCTEM** Term 2 Week 11-15	**Subitising** Week 11	**Counting, Cardinality and ordinality** Week 12	**Composition** Week 13	**Composition** Week 14	**Composition** Week 15	
Week 18-19	**White Rose**	**Mass and Capacity 4**	**Length, Height and Time 6**				
Week 20 - 23	**NCTEM** Term 2 Week 16-20	**Counting, Cardinality and ordinality** Week 16	**Comparison** Week 17	**Composition** Week 18	**Composition** Week 19	**Composition** Week 20	
Week 24 – 27	**NCTEM** Term 3 Week 21-25	**Counting, Cardinality and ordinality** Week 21	**Subitising** Week 22	**Composition** Week 23	**Composition** Week 24	**Comparison** Week 25	
Week 28 - 32	**NCTEM** Term 3 Week 26 & Review and assess	**Review and assess:** Introduce the rekenrek Week 26	**Review and Assess:** Automatic recall of bonds to 5 Week 27	**Review and Assess:** Composition of numbers to 10 Week 28	**Review and Assess:** Comparison Week 29	**Review and Assess:** Number Patterns Week 30	**Review and Assess:** Counting Week 31
Week 33 - 37	**White Rose**	**Explore 3D Shape 7**	**Manipulate, Compose and Decompose 8**	**Visualise. Build and Map 11**			

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Reception Year Overview				
	NCETM 		**White Rose** 	
	Number and Numerical Patterns	**Shape, Space and Measure and Pattern**		
Week 1-13 **Children will:**	**Taken from [Mastering Number Reception Overview]** Pupils will build on previous experiences of number from their home and nursery environments, and further develop their subitising and counting skills. They will explore the composition of numbers within 5. They will begin to compare sets of objects and use the language of comparison. Pupils will: • identify when a set can be subitised and when counting is needed • subitise different arrangements, both unstructured and structured, including using the Hungarian number frame • make different arrangements of numbers within 5 and talk about what they can see, to develop their conceptual subitising skills • spot smaller numbers 'hiding' inside larger numbers • connect quantities and numbers to finger patterns and explore different ways of representing numbers on their fingers • hear and join in with the counting sequence, and connect this to the 'staircase' pattern of the counting numbers, seeing that each number is made of one more than the previous number • develop counting skills and knowledge, including: that the last number in the count tells us 'how many' (cardinality); to • be accurate in counting, each thing must be counted once and once only and in any order; the need for 1:1 correspondence; understanding that anything can be counted, including actions and sounds • compare sets of objects by matching • begin to develop the language of 'whole' when talking about objects which have parts	**Talk about Measure and Patterns** Compare size Compare mass Compare capacity Explore simple patterns Copy and continue simple patterns Create simple patterns	**Circles and Triangles** Identify and name circles and triangles Compare circles and triangles Shapes in the environment Describe position	**Shapes with 4 sides** Identify and name shapes with 4 sides Combine shapes with 4 sides Shapes in the environment My day and night
Week 14-23	Pupils will continue to develop their subitizing and counting skills and explore the composition of numbers within and beyond 5. They will begin to identify when two sets are equal or unequal and connect two equal groups to doubles. They will begin to connect quantities to numerals.	**Mass and Capacity** Compare Mass Find a balance Explore capacity Compare capacity	**Length, height and time** Explore length Compare length Compare height Talk about time	

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Children will:	Pupils will: • continue to develop their subitising skills for numbers within and beyond 5, and increasingly connect quantities to numerals • begin to identify missing parts for numbers within 5 • explore the structure of the numbers 6 and 7 as '5 and a bit' and connect this to finger patterns and the Hungarian number frame • focus on equal and unequal groups when comparing numbers • understand that two equal groups can be called a 'double' and connect this to finger patterns • sort odd and even numbers according to their 'shape' • continue to develop their understanding of the counting sequence and link cardinality and ordinality through the 'staircase' pattern • order numbers and play track games • join in with verbal counts beyond 20, hearing the repeated pattern within the counting numbers			Order and sequence time
Week 24- 37 **Children will:**	Pupils will consolidate their counting skills, counting to larger numbers and developing a wider range of counting strategies. They will secure knowledge of number facts through varied practice. Pupils will: • continue to develop their counting skills, counting larger sets as well as counting actions and sounds • explore a range of representations of numbers, including the 10-frame, and see how doubles can be arranged in a 10-frame • compare quantities and numbers, including sets of objects which have different attributes • continue to develop a sense of magnitude, e.g. knowing that 8 is quite a lot more than 2, but 4 is only a little bit more than 2 • begin to generalise about 'one more than' and 'one less than' numbers within 10 • continue to identify when sets can be subitised and when counting is necessary • develop conceptual subitising skills including when using a rekenrek	**Explore 3D shapes /Patterns** Recognise and name 3D shapes Find 2D shapes with 3D shapes Use 3D shapes for tasks 3D shapes in the environment Identify more complex patterns Copy and continue patterns Patterns in the environment	**Manipulate, Compose and Decompose** Select shapes for a purpose Rotate shapes Manipulate shapes Explain shape arrangements Compose shapes Decompose shapes Copy 2D shape pictures Find 2D shapes within 3D shapes	**Visualise, build and map** Identify units of repeating patterns Create own pattern rules Explore own pattern rules Replicate and build scenes and constructions Visualise from different positions Describe positions Give instructions to build Explore mapping Represent maps with models Create own maps from familiar places Create own maps and plans from story situations

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