## Reception Class: Mathematics – We follow the White Rose Scheme of Learning in line with the whole school (identified in purple below)

Intent: 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 ten-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.

Term 1		Term 2	
a go', talk to adults and peers about what they notice an Te Books Peace at last, The button box, Duck in the truck, Dear Zoo, Mr Big Week 1/2/3 Getting to know you Opportunities for settling in and getting to know the children. Key times of the day, class routines. Exploring CP. Where do things belong? Positional language. • Baseline Assessments		Ter Books Circle/Triangle, Rosie's walk, I'm number one, The very hungry caterpillar, Day monkey, night monkey, The perfect fit Week 1/2/3 It's me 12 3! Representing 1 2 and 3 Comparing 1 2 and 3 Composition of 1 2 and 3 Circles and Triangles Positional Language Count objects, actions and sounds through singing songs and rhymes, playing counting games & counting a smaller number from a larger group of objects. (on going & CP) Subitising through recognition of amounts in a Numicon piece and on a 5 frame (on going & CP) Link the number symbol (numeral) with its cardinal number value through observation of class	Songs/rhymes         Week 4/5/6         Light and dark         Representing numbers to 5         One more and less         Shapes with 4 sides         Time         • Count objects, actions and sounds through building counting into the daily routine         • Subitising (on going & CP)         • Link the number symbol (numeral) with its cardinal number value.(on going & CP)         • Compare numbers (on going & CP)         • Understand the 'one more than/one less than'
	Continue, copy and create repeating patterns using the rule AB and ABB. (CP)	<ul> <li>number value through observation of class displays, math's games &amp; recording in different ways.(on going &amp; CP)</li> <li>Compare numbers using vocab more than and fewer than, the same as, equal to by providing collections. (on going &amp; CP)</li> <li>Select, rotate and manipulate shapes to develop spatial reasoning skills through construction and puzzles. (CP)</li> <li>Explore the composition of numbers, focus on 2 &amp; 3 using visual models on a dice, fingers, Numicon pieces etc.(on going &amp; CP)</li> </ul>	<ul> <li>relationship between consecutive numbers through making predictions in stories, rhymes &amp; songs if one is added or taken away. (on going &amp; CP)</li> <li>Explore the composition of numbers to 10 focus on 2,3,4,&amp; 5 using visual models on a dice, fingers, Numicon pieces etc.(on going &amp; CP)</li> <li>Select, rotate and manipulate shapes to develop spatial reasoning skills through construction and puzzles. (CP)</li> </ul>

Term 3		Term 4	
Ter Books None the number, A squash and a squeeze, Room on the broom, Six dinner sid, Jack and the beanstalk Week 1/2/3 Alive in 5! Introducing zero Comparing numbers to 5 Composition of 4 and 5 Compare mass Compare capacity • Count objects, actions and sounds, saying how many there are after counting to show last number indicates the total.(on going & CP) • Subitising (on going & CP) • Link the number symbol (numeral) with its cardinal number value.(on going & CP) • Compare numbers (on going & CP) • Understand the 'one more than/one less than' relationship between consecutive numbers.(on going & CP) • Explore the composition of numbers to 10.(on going & CP) • Automatically recall number bonds for numbers 0-5	<ul> <li>m 3</li> <li>Songs/rhymes</li> <li>Week 4/5/6</li> <li>Growing 6 7 8</li> <li>6 7 8</li> <li>Making pairs</li> <li>Combining 2 groups</li> <li>Length and Height</li> <li>Time</li> <li>Count objects, actions and sounds, say how many there might be before counting, giving purpose to counting.(on going &amp; CP)</li> <li>Subitising (on going &amp; CP)</li> <li>Link the number symbol (numeral) with its cardinal number value.(on going &amp; CP)</li> <li>Link the numbers (on going &amp; CP)</li> <li>Compare numbers (on going &amp; CP)</li> <li>Understand the 'one more than/one less than' relationship between consecutive numbers.(on going &amp; CP)</li> <li>Explore the composition of numbers to 10 introducing a tens frame and beginning to notice how many spaces there are left when placing 6, 7</li> </ul>	Ter Books How do dinousaurs count to ten? Enginges, Engines, Pattern bugs, Nine naughty kittens Week 1/2/3 Building 9 and 10 9 and 10 Comparing numbers to 10 Bonds to 10 3D Shape Pattern Count objects, actions and sounds (on going & CP) Subitising (on going & CP) Link the number symbol (numeral) with its cardinal number value .(on going & CP) Compare numbers .(on going & CP) Compare numbers .(on going & CP) Understand the 'one more than/one less than' relationship between consecutive numbers (on going & CP) Explore the composition of numbers to 10 .(on going & CP) Automatically recall number bonds for numbers 0-5 and some to 10.through spotting and using opportunities for children to apply their number	<ul> <li>m 4</li> <li>Songs/rhymes</li> <li>Week 4/5/6/ (Suggested Consolidation) To 20 and beyond</li> <li>Building numbers beyond 10</li> <li>Counting patterns beyond 10</li> <li>Spatial Reasoning</li> <li>Match, Rotate, Manipulate</li> <li>Count objects, actions and sounds. (on going &amp; CI</li> <li>Link the number symbol (numeral) with its cardina number value. (on going &amp; CP)</li> <li>Count beyond 10 – verbally to 20 and beyond pausing at each 10. Provide images such as number tracks and 100 square (CP)</li> <li>Compare numbers (on going &amp; CP)</li> <li>Understand the 'one more than/one less than' relationship between consecutive numbers. (on going &amp; CP)</li> <li>Automatically recall number bonds for numbers 0- and some to 10. (on going &amp; CP)</li> <li>Continue, copy and create repeating patterns. (on</li> </ul>
<ul> <li>through lots of hands on experiences of partitioning and combining numbers and using 5 frames to notice the spaces.</li> <li>Compare weight and capacity through modelling comparative language (on going &amp; CP)</li> </ul>	<ul> <li>&amp; 8 counters (on going &amp; CP)</li> <li>Automatically recall number bonds for numbers 0-5 and some to 10 through lots of hands on experiences of partitioning and combining numbers.</li> <li>Compare length through modelling comparative language (on going &amp; CP)</li> </ul>	<ul> <li>bonds</li> <li>Continue, copy and create repeating patterns ABB &amp; ABBC, making deliberate mistakes for the children to spot.</li> <li>Select, rotate and manipulate shapes to develop spatial reasoning skills through copying increasingly complex "pictures and patterns with 3D resources.</li> </ul>	going & CP) • Select, rotate and manipulate shapes to develop spatial reasoning skills. (on going & CP)

Term 5		Term 6	
Books	<u>Songs/rhymes</u>	Books	Songs/rhymes
Week 1/2/3         First, then, now         Adding more         Taking away         Spatial Reasoning         Compose and Decompose         •       Count objects, actions and sounds. (on going & CP)         •       Link the number symbol (numeral) with its cardinal number value. (on going & CP)         •       Count beyond 10 (on going & CP)         •       Compare numbers (on going & CP)         •       Understand the 'one more than/one less than' relationship between consecutive numbers. (on going & CP)         •       Automatically recall number bonds for numbers 0-5 and some to 10. (on going & CP)         •       Continue, copy and create repeating patterns. (on going & CP)         •       Select, rotate and manipulate shapes to develop	Week 4/5/6 Find my pattern Doubling Sharing and Grouping Even and Odd Spatial Reasoning Visualise and Build ELG <u>Number</u> 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 <u>Numerical Patterns</u> 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	On the move Deepening understanding Patterns and relationships Spatial Reasoning Mapping ELG <u>Number</u> 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 <u>Numerical Patterns</u> 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.	Consolidation
<ul> <li>spatial reasoning skills. (on going &amp; CP)</li> <li>Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. (CP)</li> </ul>	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.	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	

## <u>Vocabulary</u>

Morning, lunchtime, afternoon, under, on top of, next to, behind, in front of, match, sort, identical, odd one out, pattern, repeating, full, empty, more than, fewer than, equal to, subitising One, two, three, four, five, circles, triangles, square, rectangle, pentagon, curved edge, straight edges, corners, under, on top of, next to, behind, in front of, more than, fewer than, shape, composition, representation, count, numeral, five frame

zero, six, seven, eight, compare, composition, mass, capacity, subitising, numeral, one more, one less, composition, number bonds, weight, capacity, total, five frame, pairs, identical, matching, odd one out, length, height, longer, shorter, taller, more than, less than, tens frame, total, equals, calculation, representation

Nine, ten, subitising, numeral, more than, less than, fewer than, composition, add, total, equals, number bonds, patterns, repeating, sequence, shapes, rotate, 3 Dimensional shape, calculation, representation