

Mathematical Development

EYFS Area of learning		Where this is found in the curriculum planning/ Assessment Opportunities
Number	<p>-Displays fast recognition of up to 3 objects, without having to count them individually ('subitising')</p> <p>-Recites numbers past 5</p> <p>-Can say one number for each item in order: 1,2,3,4,5</p> <p>-Knows that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')</p> <p>-Can show 'finger numbers' up to 5</p> <p>-Can link numerals and amounts: e.g. showing the right number of objects to match the numeral, up to 5</p> <p>-Is experimenting with his/her own symbols and marks as well as numerals</p> <p>-Is able to solve real world mathematical problems with numbers up to 5</p> <p>-Can compare quantities using language such as: 'more than', 'fewer than'</p>	<p>White Rose:</p> <p>Autumn 1 Week 3&4: Match, Sort & Compare (2weeks)</p> <ul style="list-style-type: none"> • Match objects • Match pictures and objects • Identify a set • Sort objects to a type • Explore sorting techniques • Create sorting rules • Compare amounts <p>Who can match and sort objects?</p> <p>Autumn 2 Week 7&8: I t's Me 1, 2, 3 (2 weeks)</p> <ul style="list-style-type: none"> • Find 1, 2 and 3 • Subitise 1, 2 and 3 • Represent 1, 2 and 3 • 1 more • 1 less • Composition of 1, 2 and 3 <p>Who can subitise to 3? Who understands 1 more/1 less? Who can recognise 1, 2 and 3?</p> <p>Autumn 2 Week 10&11: 1, 2, 3, 4, 5 (2 weeks)</p> <ul style="list-style-type: none"> • Find 4 and 5 • Subitise 4 and 5 • Represent 4 and 5 • 1 more • 1 less • Composition of 4 and 5 • Composition of 1-5 <p>Who can subitise to 5? Who understands 1 more/1 less? Who can recognise 4 and 5?</p>
	<p>-Counts objects, actions and sounds</p> <p>-Is able to subitise (recognise how many objects there are in a small group without counting)</p> <p>-Is able to link the number symbol (numeral) with its cardinal number value</p> <p>-Can count beyond ten</p> <p>-Is able to compare numbers</p> <p>-Understands the 'one more than/one less than' relationship between consecutive numbers</p> <p>-Is able to explore the composition of numbers to 10</p> <p>-Begin to automatically recall number bonds for numbers 0-10</p>	<p>White Rose:</p> <p>Spring 1: Week 1&2 Alive in 5 (2 weeks)</p> <ul style="list-style-type: none"> • Introduce zero • Find 0 to 5 • Subitise 0 to 5 • Represent 0 to 5 • 1 more • 1 less • Composition • Conceptual subitising to 5 <p>Who can represent up to 5? Who can find ways of making up to 5?</p> <p>Spring 1: Week 4&5: Growing 6, 7, 8 (2 weeks)</p> <ul style="list-style-type: none"> • Find 6, 7 and 8 • Represent 6, 7, and 8 • 1 more • 1 less • Composition of 6, 7 and 8 • Make pairs-odd and even • Double to 8 (find a double) • Double to 8 (make a double) • Combine 2 groups • Conceptual subitising <p>Who can represent up to 8? Who can recognise 6, 7 and 8? Who can find a double? Who can find an odd/even number? Who can find ways of making 6, 7 and 8?</p> <p>Spring 2 Weeks 8,9&10: Building 9 and 10 (3 weeks)</p> <ul style="list-style-type: none"> • Find 9 and 10 • Compare numbers to 10 • Represent 9 and 10 • Conceptual subitising to 10 • 1 more • 1 less • Composition to 10 • Bonds to 10 (2 parts) • Make arrangements of 10 • Bonds to 10 (3 parts) • Doubles to 10 (find a double) • Doubles to 10 (make a double) • Explore even and odd <p>Who can represent up to 10? Who can recognise 9 and 10? Who can find ways of making 9 and 10?</p>
	<p>-Have a deep understanding of number to 10, including the composition of each number;</p> <p>-Subitise (recognise quantities without counting) up to 5;</p> <p>-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.</p>	<p>White Rose:</p> <p>Summer 1: Week 3: How many now? (1 week)</p> <ul style="list-style-type: none"> • Add more • How many did I add? • Take away • How many did I take away? <p>Who can add 2 groups together? Who take away a given amount? Who can explain their learning?</p> <p>Summer 2: Week 6&7: Sharing and grouping (2 weeks)</p> <ul style="list-style-type: none"> • Explore sharing • Sharing • Explore grouping • Grouping • Even and odd sharing • Play with and build doubles <p>Who can share a given amount? Who can group a given amount?</p>

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<p>Numerical Patterns</p>	<p>-Can talk about and explore 2D and 3D shapes (e.g. circles, rectangles, triangles and cuboids) using informal and mathematical language; 'sides', 'corners', 'straight', 'flat', 'round'</p> <p>-Understands position through words alone, e.g. "The bag is under the table," - with no pointing</p> <p>-Can describe a familiar route</p> <p>-Is able to discuss routes and locations, using words like 'in front of' and 'behind'</p> <p>-Can make comparisons between objects relating to size, length, weight and capacity</p> <p>-Selects shapes appropriately; flat surfaces for building, a triangular prism for a roof etc</p> <p>-Combines shapes to make new ones; an arch, a bigger triangle etc</p> <p>-Talks about and identifies the patterns around him/her, e.g. stripes on clothes, designs on rugs and wallpaper. He/She uses informal language like 'pointy', 'spotty', 'blobs' etc</p> <p>-Is beginning to describe a sequence of events, real or fictional, using words such as 'first', 'then...'</p>	<p>White Rose:</p> <p>Autumn 1: Week 5&6: Talk about measure and patterns (2 weeks)</p> <ul style="list-style-type: none"> • Compare size • Compare mass • Compare capacity • Explore simple patterns • Copy and continue simple patterns • Create simple patterns <p><i>Who can use language to talk about size, mass and capacity? Who can copy/continue/create a simple pattern?</i></p> <p>Autumn 2 Week 9: Circles and triangles (1 week)</p> <ul style="list-style-type: none"> • Identify and name circles and triangles • Compare circles and triangles • Shapes in the environment • Describe position <p><i>Who can name a circle and triangle? Who can talk about shapes? Who can describe the position of an object?</i></p> <p>Autumn 2 Week 12: Shapes with 4 sides (1 week)</p> <ul style="list-style-type: none"> • Identify and name shapes with 4 sides • Combine shapes with 4 sides • Shapes in the environment • My day and night <p><i>Who can talk about their day? Who can talk about shapes?</i></p>
<p>-Can select, rotate and manipulate shapes in order to develop spatial reasoning skills</p> <p>-Investigates composing and decomposing shapes and recognises a shape can have other shapes within it, just as numbers can</p> <p>-Is able to extend and create ABAB patterns, e.g. stick, leaf, stick, leaf</p> <p>-Notices and corrects an error in a repeating pattern</p> <p>-Is able to continue, copy and create repeating patterns</p> <p>-Can compare length, weight and capacity</p>	<p>White Rose:</p> <p>Spring 1: Week 3: Mass and Capacity (1 week)</p> <ul style="list-style-type: none"> • Compare mass • Find a balance • Explore capacity • Compare capacity <p><i>Who can balance 2/3 objects? Who can compare the size of 2/3 objects?</i></p> <p>Spring 1: Week 6&7: Length, Height and Time (1 week)</p> <ul style="list-style-type: none"> • Explore length • Compare length • Explore height • Compare height • Talk about time • Order and sequence time <p><i>Who can compare the length/height of 2/3 objects? Who can use simple language to describe time? Who can order/sequence 3-4 pictures of their day?</i></p> <p>Spring 2 Week 11&12: Explore 3D shapes (2 weeks)</p> <ul style="list-style-type: none"> • Recognise and name 3D shapes • Find 2D shapes within 3D shapes • Use 3D shapes for tasks • 3D shapes in the environment • Identify more complex patterns • Copy and continue patterns • Patterns in the environment <p><i>Who can recognise and name 3D shapes? Who can copy/continue/create a more complex repeating pattern?</i></p>	<p>White Rose:</p> <p>Summer 1: Week 1&2: To 20 and beyond (2 weeks)</p> <ul style="list-style-type: none"> • Build numbers beyond 10 (10-13) • Continue patterns beyond 10 (10-13) • Build numbers beyond 10 (14-20) • Continue patterns beyond 10 (14-20) • Verbal counting beyond 20 • Verbal counting patterns <p><i>Who can see the pattern of teen numbers? Who can count by rote to 20 and beyond?</i></p> <p>Summer 1: Week 4&5: Manipulate, compose and decompose (2 weeks)</p> <ul style="list-style-type: none"> • 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 <p><i>Who can manipulate 2D shapes and make connections?</i></p> <p>Summer 2: Weeks 8,9&10: Visualise, build and map (3 weeks)</p> <ul style="list-style-type: none"> • 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 <p><i>Who can create their own patterns? Who can follow and create their own map?</i></p> <p>Summer 2: Week 11: Make connections (1 week)</p> <ul style="list-style-type: none"> • Deepen understanding • Patterns and relationships <p><i>Who can talk about their mathematical understanding and make connections?</i></p>
<p>-Verbally count beyond 20, recognising the pattern of the counting system;</p> <p>-Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;</p> <p>-Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>		