

Area of Learning Mathematics	<b>ELG- Mathematics – Number, Early Shape and Pattern</b>			
	<b>Intent:</b> At John Randall, we want our children to be fluent mathematicians, through varied and frequent practise of Mathematical problems and concepts. We want our learners to be able to recognise the importance of maths in the wider world and be able to use their mathematics skills and knowledge confidently in their lives in a range of different contexts and subjects.	<b>Implementation:</b> We do this by: <ul style="list-style-type: none"> <li>Implementing daily Mathematics taught sessions for children to develop fluency, reasoning and problem-solving skills</li> <li>Bringing Mathematical concepts into our everyday routines e.g. registers, dates etc.</li> <li>Creating number, shape and pattern rich environments which enable the children to link Mathematics to real life contexts</li> </ul>	<b>Impact; by the end of FS:</b> <ul style="list-style-type: none"> <li>I will be confident at subitising and spotting groups that make up a whole number</li> <li>I will know number bonds to 5 and some to 10</li> <li>I will understand how to double</li> <li>I will record my Mathematical findings</li> <li>I will be confident in problem solving</li> <li>I will be able to recognise patterns with numbers</li> <li>I will be able to recognise shapes and properties of 2D &amp; 3D shapes</li> <li>Understand different ways of measuring for different purposes</li> <li>Spot and articulate patterns that I see</li> </ul>	
	<b>(NUMBER) Knowledge – I will know...</b>			
	<b>Comparison:</b> <ul style="list-style-type: none"> <li>How to explore similarities and differences between 2 or more numbers</li> <li>How to estimate using a reasonable judgement based on my knowledge</li> </ul>	<b>Counting:</b> <ul style="list-style-type: none"> <li>How to say number names in the correct order to find out an amount</li> <li>How to use number names as a repeated pattern and will know how to begin counting at different starting points</li> </ul>	<b>Cardinality:</b> <ul style="list-style-type: none"> <li>The last number counted represents how many are in a set</li> <li>How to subitise and instantly recognise small quantities without saying number names in order</li> </ul>	<b>Composition:</b> <ul style="list-style-type: none"> <li>About number structure and how numbers are built</li> <li>How to partition</li> <li>That parts make up a total amount</li> </ul>
	<b>(NUMBER) Skills – I will be learning to...</b>			
	<ul style="list-style-type: none"> <li>Problem solve</li> <li>Answer open ended questions</li> <li>Sort</li> <li>Position</li> <li>Categorise</li> </ul>	<ul style="list-style-type: none"> <li>How to explain similarities and differences</li> <li>Investigate</li> <li>Compare</li> <li>Match</li> </ul>	<ul style="list-style-type: none"> <li>Estimate</li> <li>Remember and recall</li> <li>Sequence</li> <li>Record in different ways</li> <li>Test ideas</li> </ul>	<ul style="list-style-type: none"> <li>Partition/ spilt amounts</li> <li>Persevere</li> <li>Count confidently and in order</li> <li>Explain and communicate findings</li> </ul>
	<b>(EARLY SHAPE AND PATTERN) Knowledge – I will know...</b>			
	<b>Spatial Awareness:</b> <ul style="list-style-type: none"> <li>How to describe the location of an object using positional language</li> <li>How to describe different viewpoints in relation to myself</li> </ul>	<b>Shape:</b> <ul style="list-style-type: none"> <li>What different shapes look like, their purpose and defining characteristics of shapes</li> <li>Formal and informal language to describe shapes e.g. twisty, bendy, zig-zag etc.</li> </ul>	<b>Pattern:</b> <ul style="list-style-type: none"> <li>That pattern is a regular, repeated design</li> <li>About spatial awareness e.g. when I place an object in a particular sequence/ position</li> <li>About linear awareness e.g. knowing what will come next in a sequence through repetition</li> </ul>	<b>Measures:</b> <ul style="list-style-type: none"> <li>Sizes and amounts of things</li> <li>About the concept of 'how much'</li> <li>Language of comparison e.g. length, time, weight, capacity</li> </ul>
<b>(EARLY SHAPE AND PATTERN) Skills – I will be learning...</b>				
<ul style="list-style-type: none"> <li>Describe positions of objects</li> <li>Where objects are in relation to one and other</li> <li>Select, rotate &amp; manipulate shapes in order to develop spatial reasoning skills</li> </ul>	<ul style="list-style-type: none"> <li>Age appropriate vocabulary to describe shapes</li> <li>Informal language to describe shapes e.g. slanted, pointy, twisted</li> </ul>	<ul style="list-style-type: none"> <li>Recognise, continue and correct errors in a repeated pattern</li> <li>a,b,a,b pattern</li> <li>a,b,c,a,b,c pattern</li> <li>a,a,b,a,a,b pattern</li> </ul>	<ul style="list-style-type: none"> <li>how to compare amounts</li> <li>how to recognise 'the same'</li> <li>'more' and 'fewer'</li> <li>sequence events in my day-to-day life</li> </ul>	

<ul style="list-style-type: none"> <li>•</li> </ul>			<ul style="list-style-type: none"> <li>• what a calendar &amp; clock and date is used for</li> <li>• heavy/light</li> <li>• tall/short</li> <li>• full/empty</li> </ul>
<p><b>ELG – Number</b></p> <ol style="list-style-type: none"> <li>1. Have a deep understanding of number to 10, including the composition of each number.</li> <li>2. Subitise (recognise quantities without counting) up to 5.</li> <li>3. 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.</li> </ol>	<p><b>How this is implemented and achieved in EYFS:</b></p> <ul style="list-style-type: none"> <li>• Regular counting opportunities in day-to-day routine</li> <li>• 1 more &amp; 1 less to 20</li> <li>• Show finger numbers to 5</li> <li>• Link numerals and amounts e.g. showing the right number of objects to match the numeral up to 5</li> <li>• Experiment (record) with their own symbols and marks as well as numerals</li> <li>• Link the number symbol (numeral) with its cardinal number value</li> </ul> <p>Reading &amp; Writing:</p> <ul style="list-style-type: none"> <li>• Link numerals and amounts e.g. showing the right number of objects to match the numeral up to 5</li> <li>• Experiment (record) with their own symbols and marks as well as numerals</li> <li>• Link the number symbol (numeral) with its cardinal number value</li> </ul>		<p><b>Links to KS1</b></p> <p><a href="https://www.johnrandallprimary.co.uk/progression-in-skills/">https://www.johnrandallprimary.co.uk/progression-in-skills/</a></p> <p><a href="https://www.johnrandallprimary.co.uk/progression-of-skills/">https://www.johnrandallprimary.co.uk/progression-of-skills/</a></p>
<p><b>ELG – Numerical Patterns</b></p> <ol style="list-style-type: none"> <li>1. Verbally count beyond 20, recognising the pattern of the counting system.</li> <li>2. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</li> <li>3. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li> </ol>	<p><b>How this is implemented and achieved in EYFS:</b></p> <p>Identifying shapes:</p> <ul style="list-style-type: none"> <li>• Combine shapes to make new ones e.g. an arch, a bigger triangle</li> <li>• Compose and decompose shapes so that children can recognise a shape can have another shape within it, just like numbers can</li> <li>• Select, rotate &amp; manipulate shapes in order to develop spatial reasoning skills</li> </ul> <p>Position, direction &amp; Movement: (UTW)</p> <ul style="list-style-type: none"> <li>• Describe a familiar route</li> <li>• Discuss routes and locations</li> <li>• Draw information from a simple map</li> </ul>		