

# Priors Hall – a learning community

## Mastering Number Overview FS2 – Year 2

### 2023 - 2024



*'Ready for Learning, Ready for Life'*



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## Mastering Number: Overview of content – Reception

Strand/ Half-term	Subitising	Cardinality, ordinality and counting	Composition	Comparison
<b>1</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>perceptually subitise within 3</li> <li>identify sub-groups in larger arrangements</li> <li>create their own patterns for numbers within 4</li> <li>practise using their fingers to represent quantities which they can subitise</li> <li>experience subitising in a range of contexts, including temporal patterns made by sounds.</li> </ul>	<ul style="list-style-type: none"> <li>relate the counting sequence to cardinality, seeing that the last number spoken gives the number in the entire set</li> <li>have a wide range of opportunities to develop their knowledge of the counting sequence, including through rhyme and song</li> <li>have a wide range of opportunities to develop 1:1 correspondence, including by coordinating movement and counting</li> <li>have opportunities to develop an understanding that anything can be counted, including actions and sounds</li> <li>explore a range of strategies which support accurate counting.</li> </ul>	<ul style="list-style-type: none"> <li>see that all numbers can be made of 1s</li> <li>compose their own collections within 4.</li> </ul>	<ul style="list-style-type: none"> <li>understand that sets can be compared according to a range of attributes, including by their numerosity</li> <li>use the language of comparison, including 'more than' and 'fewer than'</li> <li>compare sets 'just by looking'.</li> </ul>
<b>2</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue from first half-term</li> <li>subitise within 5, perceptually and conceptually, depending on the arrangements.</li> </ul>	<ul style="list-style-type: none"> <li>continue to develop their counting skills</li> <li>explore the cardinality of 5, linking this to dice patterns and 5 fingers on 1 hand</li> <li>begin to count beyond 5</li> <li>begin to recognise numerals, relating these to quantities they can subitise and count.</li> </ul>	<ul style="list-style-type: none"> <li>explore the concept of 'wholes' and 'parts' by looking at a range of objects that are composed of parts, some of which can be taken apart and some of which cannot</li> <li>explore the composition of numbers within 5.</li> </ul>	<ul style="list-style-type: none"> <li>compare sets using a variety of strategies, including 'just by looking', by subitising and by matching</li> <li>compare sets by matching, seeing that when every object in a set can be matched to one in the other set, they contain the same number and are equal amounts.</li> </ul>
<b>3</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>increase confidence in subitising by continuing to explore patterns within 5, including structured and random arrangements</li> <li>explore a range of patterns made by some numbers greater than 5, including structured patterns in which 5 is a clear part</li> <li>experience patterns which show a small group and '1 more'</li> <li>continue to match arrangements to finger patterns.</li> </ul>	<ul style="list-style-type: none"> <li>continue to develop verbal counting to 20 and beyond</li> <li>continue to develop object counting skills, using a range of strategies to develop accuracy</li> <li>continue to link counting to cardinality, including using their fingers to represent quantities between 5 and 10</li> <li>order numbers, linking cardinal and ordinal representations of number.</li> </ul>	<ul style="list-style-type: none"> <li>continue to explore the composition of 5 and practise recalling 'missing' or 'hidden' parts for 5</li> <li>explore the composition of 6, linking this to familiar patterns, including symmetrical patterns</li> <li>begin to see that numbers within 10 can be composed of '5 and a bit'.</li> </ul>	<ul style="list-style-type: none"> <li>continue to compare sets using the language of comparison, and play games which involve comparing sets</li> <li>continue to compare sets by matching, identifying when sets are equal</li> <li>explore ways of making unequal sets equal.</li> </ul>

<p><b>4</b></p> <p><b>Children will:</b></p>	<ul style="list-style-type: none"> <li>• explore symmetrical patterns, in which each side is a familiar pattern, linking this to 'doubles'.</li> </ul>	<ul style="list-style-type: none"> <li>• continue to consolidate their understanding of cardinality, working with larger numbers within 10</li> <li>• become more familiar with the counting pattern beyond 20.</li> </ul>	<ul style="list-style-type: none"> <li>• explore the composition of odd and even numbers, looking at the 'shape' of these numbers</li> <li>• begin to link even numbers to doubles</li> <li>• begin to explore the composition of numbers within 10.</li> </ul>	<ul style="list-style-type: none"> <li>• compare numbers, reasoning about which is more, using both an understanding of the 'howmanyness' of a number, and its position in the number system.</li> </ul>
<p><b>5</b></p> <p><b>Children will:</b></p>	<ul style="list-style-type: none"> <li>• continue to practise increasingly familiar subitising arrangements, including those which expose '1 more' or 'doubles' patterns</li> <li>• use subitising skills to enable them to identify when patterns show the same number but in a different arrangement, or when patterns are similar but have a different number</li> <li>• subitise structured and unstructured patterns, including those which show numbers within 10, in relation to 5 and 10</li> <li>• be encouraged to identify when it is appropriate to count and when groups can be subitised.</li> </ul>	<ul style="list-style-type: none"> <li>• continue to develop verbal counting to 20 and beyond, including counting from different starting numbers</li> <li>• continue to develop confidence and accuracy in both verbal and object counting.</li> </ul>	<ul style="list-style-type: none"> <li>• explore the composition of 10.</li> </ul>	<ul style="list-style-type: none"> <li>• order sets of objects, linking this to their understanding of the ordinal number system.</li> </ul>
<p><b>6</b></p>	<p>In this half-term, the children will consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers.</p>			

## Mastering Number: Overview of content – Year 1

Strand/ Half-term	Subitising	Cardinality, ordinality and counting	Composition	Comparison	Addition and subtraction/ Number facts
<b>1</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>revisit subitising within 5 using perceptual subitising</li> <li>practise conceptual subitising of bigger numbers as they become more familiar with patterns made by the numbers 5–10.</li> </ul>	<ul style="list-style-type: none"> <li>explore the linear number system within 10, looking at a range of ordinal representations</li> <li>explore the link between the ‘staircase’ pattern and a number track.</li> </ul>	<ul style="list-style-type: none"> <li>focus on the composition of numbers within 10, with a particular emphasis on the composition of numbers 6, 7, 8 and 9 as ‘5 and a bit’, as well as exploring the composition of numbers 5 and 6 in-depth</li> <li>explore the composition of odd and even numbers, identifying that even numbers are made of 2s and odd numbers have ‘an extra 1’ – they will link this to the ‘shape’ of these numbers.</li> </ul>		Although children will not be looking at number bonds expressed as equations, their work on the composition of numbers within 10 will be developing their knowledge of number bonds.
<b>2</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of.</li> </ul>	<ul style="list-style-type: none"> <li>review the linear number system to 10 as they compare numbers.</li> </ul>	<ul style="list-style-type: none"> <li>continue to explore the composition of the numbers 7–9 in-depth, linking this to their understanding of odd and even numbers</li> <li>explore the composition of 10, developing a systematic approach to finding pairs that sum to 10.</li> </ul>	<ul style="list-style-type: none"> <li>revisit what is meant by ‘comparing’ and see that quantities can be compared according to different attributes, including numerosity.</li> </ul>	As above.
<b>3</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of.</li> </ul>		<ul style="list-style-type: none"> <li>review the composition of numbers within 10, linking these to part-part-whole representations</li> <li>practise recalling missing parts for numbers within 10.</li> </ul>	<ul style="list-style-type: none"> <li>compare numbers within 10, linking this to their understanding of the linear system</li> <li>use the inequality symbol to create expressions, e.g. <math>7 &gt; 2</math>, and use the language of ‘greater than’ and ‘less than’</li> <li>reason about inequalities, drawing on their knowledge of the composition of numbers,</li> </ul>	<ul style="list-style-type: none"> <li>develop their recall of number bonds within 10, through the use of exercises which use written numerals but not the symbols +, – , or =.</li> </ul>

				e.g. Is this true or false? 3 and 2 is less than 4.	
<b>4</b> <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of.</li> </ul>	<ul style="list-style-type: none"> <li>review the linear number system to 10, looking at a range of representations, including a number line</li> <li>explore the use of 'midpoints' to enable them to identify the location of other numbers.</li> </ul>	<ul style="list-style-type: none"> <li>review the composition of odd and even numbers, linking this to doubles and near doubles</li> <li>explore the composition of the numbers 11–20, seeing representations which show the structure of these numbers as 'ten and a bit'.</li> </ul>		<ul style="list-style-type: none"> <li>continue to develop their recall of bonds within 10, through the use of exercises which do NOT involve written equations, such as <math>4 + 3 = ?</math></li> <li>identify doubles and near doubles through visual representations of odd and even numbers.</li> </ul>
<b>5</b> <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of.</li> <li>conceptually subitise numbers within 20 as they become more familiar with the composition of numbers within 20.</li> </ul>	<ul style="list-style-type: none"> <li>review the linear number system to 20, looking at a range of representations, including a number line</li> <li>explore the use of 'midpoints' to enable them to identify the location of other numbers.</li> </ul>	<ul style="list-style-type: none"> <li>continue to explore representations which expose the composition of numbers within 20.</li> </ul>	<ul style="list-style-type: none"> <li>compare numbers within 20, including questions which use the symbols +, &lt;, &gt;, or =, such as: True or false? <math>10 + 4 &lt; 14</math> <math>10 + 4 = 14</math> <math>10 + 4 &gt; 14</math></li> </ul>	<ul style="list-style-type: none"> <li>develop their fluency in additive relationships within 10, using a range of activities and games</li> <li>draw on their knowledge of the composition of numbers to complete written equations</li> <li>revisit strategies for addition and subtraction within 10 and apply these to a range of questions, including written equations.</li> </ul>
<b>6</b> <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to use conceptual subitising, especially when using a rekenrek.</li> </ul>		<ul style="list-style-type: none"> <li>apply their knowledge of the composition of numbers, to calculations within 10 and 20.</li> </ul>	<ul style="list-style-type: none"> <li>continue to draw on their knowledge of the relative size of numbers when answering questions using the inequality symbol.</li> </ul>	<ul style="list-style-type: none"> <li>continue to practise recalling additive facts within 20, applying their knowledge of the composition of numbers within 20 and strategies within 10.</li> </ul>

## Mastering Number: Overview of content – Year 2

Strand/ Half-term	Subitising	Cardinality, ordinality and counting	Composition	Comparison	Addition and subtraction/ Number facts
<b>1</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>develop conceptual subitising skills as they become more familiar with patterns made by numbers within 10 and understand their composition</li> <li>use perceptual and conceptual subitising when using a rekenrek.</li> </ul>	<ul style="list-style-type: none"> <li>explore the linear number system within 10, looking at a range of representations</li> <li>compare number tracks and number lines and explore the use of 'midpoints' to enable them to identify the location of other numbers.</li> </ul>	<ul style="list-style-type: none"> <li>focus on the composition of numbers within 10, with a particular emphasis on the composition of numbers 6, 7, 8 and 9 as '5 and a bit', as well as exploring the composition of numbers 5 and 6 in-depth</li> <li>explore the composition of odd and even numbers, identifying that even numbers are made of 2s and odd numbers have 'an extra 1' – they will link this to the 'shape' of these numbers.</li> </ul>		<ul style="list-style-type: none"> <li>link their growing understanding of the composition of numbers within 10 to the related additive facts, including adding 2 to an odd or even number</li> <li>practise recalling facts in a variety of ways, including through solving simple picture problems and completing equations with a missing sum or addend,</li> </ul>
<b>2</b>  <b>Children will:</b>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of.</li> </ul>	<ul style="list-style-type: none"> <li>review the linear number system as they compare numbers.</li> </ul>	<ul style="list-style-type: none"> <li>continue to explore the composition of the numbers 7–9 in-depth, linking this to their understanding of odd and even numbers</li> </ul>	<ul style="list-style-type: none"> <li>compare numbers within 10, linking this to their understanding of the linear number system</li> <li>use the inequality symbols to create expressions, e.g. <math>7 &gt; 2</math>, and use the language of 'greater than' and 'less than'</li> <li>draw on their knowledge of number bonds to answer questions in the form: True or false? <math>5 + 3 &gt; 7</math></li> </ul>	<ul style="list-style-type: none"> <li>continue to practise recalling additive facts for numbers within 10, using a range of equations, games and picture problems.</li> </ul>

<p><b>3</b></p> <p><b>Children will:</b></p>	<ul style="list-style-type: none"> <li>continue to practise conceptually subitising numbers they have already explored the composition of, including 'teen' numbers when they have reviewed the composition of 11–19.</li> </ul>		<ul style="list-style-type: none"> <li>review the composition of 11 to 19 as 'ten and a bit' and explore ways to represent this.</li> </ul>		<ul style="list-style-type: none"> <li>focus on number bonds within 10 presented in the part-part-whole structure, including identifying a missing 'part' and relating this to subtraction equations</li> <li>review strategies for adding 1 and 2 to odd and even numbers to subtraction facts presented in different ways</li> <li>apply their knowledge of the composition of 11–19 to calculations in which 10 is a part</li> <li>apply their knowledge of composition to facts involving 3 addends.</li> </ul>
<p><b>4</b></p> <p><b>Children will:</b></p>	<ul style="list-style-type: none"> <li>continue to conceptually subitise the numbers 11–19 using a range of representations, which expose the structure of these numbers as 'ten and a bit'.</li> </ul>	<ul style="list-style-type: none"> <li>revisit the structure of the linear number system within 20, making links between the midpoints of 5 and 10, and 15.</li> </ul>	<ul style="list-style-type: none"> <li>review the composition of odd and even numbers, linking this to doubles and near doubles.</li> </ul>	<ul style="list-style-type: none"> <li>continue to compare numbers within 20, including questions which use the symbols +, &lt;, &gt;, or =, such as:</li> </ul> <p>Write the correct symbol:</p> $10 + 4 \square 15$ $10 + 4 \square 14$ $10 + 4 \square 13$	<ul style="list-style-type: none"> <li>draw on their knowledge of the linear number system and apply this to calculations involving 1 more and 1 less, and pairs of numbers with a difference of 1</li> <li>use their understanding of the composition of odd and even numbers to find doubles and near doubles</li> <li>apply known facts to calculations involving larger numbers, e.g. <math>5 + 2</math>, <math>15 + 2</math>, <math>25 + 2</math>.</li> </ul>

<p><b>5</b></p> <p><b>Children will:</b></p>	<ul style="list-style-type: none"> <li>revisit previous activities which develop their subitising skills.</li> </ul>	<ul style="list-style-type: none"> <li>review the linear number system to 100, applying their knowledge of midpoints to place numbers on a structured number line – they will identify the multiples of 10 that come before and after a given number.</li> </ul>	<ul style="list-style-type: none"> <li>revisit previous activities which develop their understanding of the composition of numbers within 10 and 20.</li> </ul>	<ul style="list-style-type: none"> <li>reason about equalities and inequalities using equations and answering questions, such as:            True or false?  <math>5 + 3 = 6 + 2</math>  <math>9 + 4 &gt; 9 + 5</math>  <math>9 + 6 &lt; 10 + 5</math>            This will help them become fluent in the use of the inequality symbol as well as practising their number bond knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>become fluent in a range of strategies involving calculations within 20, using 'make 10' strategies to add, and subtracting through the tens boundary</li> <li>practise recalling number bonds through a range of activities and games which will encourage them to reason about sums and differences.</li> </ul>
<p><b>6</b></p> <p><b>Children will:</b></p>	<p>As above.</p>		<p>As above.</p>		<ul style="list-style-type: none"> <li>develop their fluency in additive relationships within 20, using a range of activities and games and revisiting previously taught strategies where necessary.</li> </ul>