

Planning Overview
Year 1 Place Value to 10

Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number

Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens

Given a number, identify one more and one less

Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least

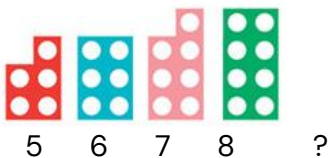
Read and write numbers from 1 to 20 in numerals and words.

1NPV-1 Count within 100, forwards and backwards, starting with any number

1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$

1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.

Please note that Place Value is repeated again to deal with numbers to 20 and then 100. The teaching for mastery documents will be used as guidance of the pitch needed by the end of the year so if numbers are over 10 these will need to be adapted to numbers to 10 in this unit of work.

	Teaching and Learning
<p>Recap Counting from 1-10 and using this to accurately count sets of objects, pictures, sounds and actions</p>	<p>Have a range of resources and numbers ready on the tables to help you to check understanding of 1:1 correspondence, cardinality and conservation of number from EYFS.</p> <p>What can you tell me about the number on the card you have chosen? How can you represent this with resources? How can you represent this with a drawing?</p> <p>Make sure children can count using 1:1 correspondence. Demonstrate moving objects as you count and putting them in a line to avoid double counting.</p> <p>Make sure children understand cardinality (the last number you say represents the whole set).</p> <p>Can children count objects in a picture accurately? Teach strategies like crossing out, circling or covering pictures as you count.</p> <p>Make sure children understand that rearranging objects (e.g. spreading them out to take up more space) will not change the count.</p>
<p>Counting forwards and backwards from different start numbers</p>	<p>Use practical equipment e.g. Numicon or multilink to display a number sequence. Ask children to show the next item in the sequence using the equipment. How did you know that was the next one? Display the numbers underneath the practical equipment.</p> <div style="text-align: center;">  <p>5 6 7 8 ?</p> </div>

Are the numbers counting forwards or backwards? What would the number before look like? Can you make it?

Explore a few examples with the children including examples where the numbers go backwards.

Choose a starting number and ask them to count either forwards or backwards moving a counter along the track as they count.

Show children some sequences without the practical equipment (though they can still use this to support them in finding the next number) e.g. 2, 3, 4, , ,

Use a counting stick to practise counting forwards and backwards to ten using different starting points.

Key Questions

Are the numbers counting forwards or backwards? How do you know?
Can you show me?

How do you know what the next number is?

What would the number before be? Can you make it?

Sit in a circle. Choose a starting number and ask children to count in ones around the circle either forwards or backwards. Who do you think will say the number 7?

Have the numbers, words and visual representations of each number visible to support the children's understanding.

Choose a number card from 1-10. Can they identify the card that comes next when they count forwards? And the next one...and the next one? Choose a different number card. Can they identify the number that comes before it when they count backwards? And the next one? And the next one?

Roll a 1-6 dice. Can you count forward from the number that you have rolled? Can you count backwards?

Complete number sequences such as:

3, 4, 5, 6, , ,

9, 8, 7, 6, , ,

Spot mistakes in a number sequence:

4, 5, 6, 7, 9

True or False:

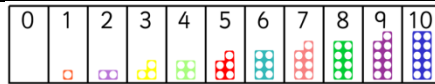
I am counting forwards from 6 in ones.

Will I say 5? How do you know?

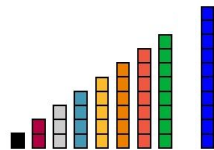
I am going to count backwards from 8 to 0 will I say 9.

How many numbers to do I say to get from 8 to 0?

One more, one less



Make a number line from 1 - 10 using numicon or another resource. Choose a number. What can you tell me about your number? – Encourage children to discuss the number that is one more or less than their number. Can they find their number on a number track? What is the number before and after, one more/one less? Child closes their eyes while you remove a shape from the ordered Numicon. Can they identify the missing shape and the number that it represents? How do they know? Can they write the number that the shape represents?



Remove a shape but close the gap. Can they identify the shape that is missing? How do they know?

Missing Number Sequences

Children to use one more/less as well as counting forward and backwards strategies to complete missing number sequences such as:

10, , 8, , , 5, 4
 , 3, 4, 5, , , 8

Muddle up 2 different sets of digit cards 1-10 (e.g. one red, one blue) and arrange them into 2 rows of 10. Decide which row will end up as red row and blue row and which player owns each row. Turn over a card and put it in the correct place in the appropriate row replacing the card that is already there. The replaced card is the next card to be positioned by the appropriate player. Discuss strategies for placing your card e.g. I counted from 1, counted back from 10, knew it was the next number after 3 which is already turned over.



Mastery Assessment – adapt numbers to use range 0-10.

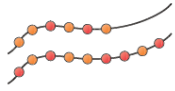
Complete:

19		21	22		
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Varied questions including questions that show that children understand the language of more than and less than in all formats.

? is one more than 6 6 is one more than ?

	<p>? is one less than 8 8 is one less than ?</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #00a69a; color: white; margin: 0;">Mastery</p> <p style="margin: 0;">Write the missing number in each box.</p> <p>19 $\xrightarrow{\text{is 1 less than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> <p>33 $\xrightarrow{\text{is 1 less than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> <p>54 $\xrightarrow{\text{is 1 less than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> <p>59 $\xrightarrow{\text{is 1 less than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> </div> <p style="text-align: right; margin-right: 50px;">Adapt numbers to evaluate mastery of numbers to 10</p> <p>Can children work in a system to find numbers 1 more or less than each number to 10.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; background-color: #00a69a; color: white; margin: 0;">Mastery with Greater Depth</p> <p style="margin: 0;">Complete:</p> <p><input style="width: 30px; height: 20px;" type="text"/> $\xrightarrow{\text{is 1 less than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> <p><input style="width: 30px; height: 20px;" type="text"/> $\xrightarrow{\text{is 1 more than}}$ <input style="width: 30px; height: 20px;" type="text"/></p> </div> <p>Sarah thought of a number – one more than her number was 6, what was her number?</p>
<p>Comparing amounts and using associated vocab</p>	<p>Key language – for countable nouns compare using more than, fewer than, the most, the fewest, the same number – for uncountable nouns (e.g. money or juice) use more than, less than, the most, the least, the same amount</p> <p>Show the children 2 sets of objects. Which set has more/fewer? How do you know? Can you explain to a partner/prove it? Look at importance of pairing up objects (one from each set) until one set has none left. A number track or 5 frames can be useful for this. Look for children who are subitising and then comparing numbers because they know which number is bigger. Can they reason 'I know that set has more because that set has 5 and that set has 3 and I say 5 after 3 when I count so it is bigger'.</p> <p>Introduce three sets of objects. Which set has the most? The fewest? Can they explain how they know? Include situations where some sets have the same number of objects.</p> <p>Include sets where each set contains a different type of object and sometimes there are more of the smaller objects to distinguish between size and quantity.</p> <p>Fluency based questions using objects to represent numbers e.g. make a set with fewer than/more than 4 cubes</p>

	<p style="text-align: center;">Mastery</p> <p>Compare amounts. What's the same? What's different? <i>Children compare the bead strings and notice: One has 9 beads and the other has 6 beads. 9 is 3 more than 6. 6 is 3 less than 9.</i></p>  <p>Do they know that 9 is more than 6? Knowing how many more will start to be addressed in addition and subtraction.</p>					
<p>Comparing numbers and using associated vocab and symbols < > and =</p>	<p>Key language – greater than, less than, equal to, greatest, least</p> <p>Look at two numbers. Which one is greater? How do you know? Can you prove it? Children could use objects again to reason here or make links to the relative positions on a number line or the counting sequence. "I know that 8 is greater than 3 because when I count to 8 I have to count past 3."</p> <p>Can children use a pan balance with numicon or multilink to show greater than and less than? Use words to compare two numbers moving on to symbols if appropriate.</p> <p>Move on to comparing 3 or more numbers and introduce the mathematical terms greatest, least</p> <p>I'm giving each of you a strip of card with some numbers on [five numbers at random from 0 to 10].</p> <p>Point to the number which is worth most. Now point to the number which is worth least.</p> <p>There is a lot of unusual vocab in comparison. To get children to use it rather than just understand it, give children cards with these new vocab words on and encourage them to choose one and then say a sentence about sets of objects and/or numerals using the word on their</p> <p>card E.g. The dog has more apples than the bird. The cat has the fewest apples. 5 is less than 7</p> <p>Only introduce < > = as a shorthand when you think the children are confident with the vocabulary and concepts – this could be in a later place value unit.</p>					
<p>Ordering numbers including use of ordinal numbers – first,</p>	<p>Make these 5 numbers with equipment and put them in order. Why have you put this number there?</p> <p>Mastery assessments – adapt to numbers in range 0- 10</p> <p style="text-align: center;">Mastery</p> <p>Write the numbers in order of size.</p> <table border="1" data-bbox="438 1948 678 1993"> <tr> <td>15</td> <td>16</td> <td>5</td> <td>71</td> <td>50</td> </tr> </table>	15	16	5	71	50
15	16	5	71	50		

second, third

Discuss ordinal language – this should be reinforced through daily activities.

Logic problems Year 1 Lesson 1
Resource sheet 2a

Children to complete logic problem activity and then create a sequence of characters that they describe to their partner – can their partner create the same sequence of characters using clues such as first in the line.

Greater Depth

If Sam places these 5 numbers in order, starting with the smallest number, which number will be in fourth position?

46 64 24 42 50

smallest largest

Number lines and consolidation

Number tracks and number lines will have been used throughout this unit of work alongside practical resources such as numicon.

Give the children a number line 0 – 10 stuck into their book. What can you tell me or show me with this number line? Can they show the biggest/smallest number? Can they represent some of the numbers from the number line? Can they create a greater than or less than statement?

Give them a marked number line with just 0 and 10 labelled at each end like the one below. Can you place your 2 favourite numbers on this number line? Which strategy did you use to work out where to position your number? Was it the same each time? Make sure children use counting on from 0 and back from 10 but also counting on and back from a previously positioned number or the midpoint 5. Children could position pairs of numbers on number lines articulating and/or recording which strategies they use each time to develop their reasoning.



Give them a blank unmarked number line with just 0 and 10 labelled. Can you estimate where your favourite numbers would go on this number line? Which number would be right in the middle? How could this information help you? Make sure children think carefully about the positioning of numbers like 2 and 3. Will they be nearer to 0 or 5? How many numbers are missing between 0 and 2? Between 2 and 5? Position pairs of numbers as above explaining strategies.

