

## NJDOE MODEL CURRICULUM PROJECT

<b>CONTENT AREA:</b> Mathematics	<b>GRADE:</b> K	<b>UNIT:</b> # 4	<b>UNIT NAME:</b> Foundations for Place Value
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STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS	
<b>1</b>	<b>Count orally to 70 by ones and tens.</b>	<b>K.CC.1</b>	Count to 100 by ones and by tens.
<b>2</b>	Decompose numbers less than or equal to ten into pairs of numbers in more than one way and record with a drawing or equations (e.g., write 7 as $2 + 5$ and $6 + 1$ ).	K.OA.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$ ).
<b>3</b>	Given a number less than 10, find a number that makes 10 (e.g., $1 + 9$ , $2 + 8$ , $3 + 7$ , $4 + 6$ , $5 + 5$ , etc.).	K.OA.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
<b>4</b>	<b>Use mental math strategies to solve addition and subtraction facts within 5.</b>	K.OA.5	Fluently add and subtract within 5.
<b>5</b>	Compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives. Record each composition or decomposition through a drawing or equation.	K.NBT.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$ ); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

***Bold type indicates grade level fluency requirements.*** (Identified by PARCC Model Content Frameworks)

## Selected Opportunities for Connection to Mathematical Practices

- 1. Make sense of problems and persevere in solving them.**  
SLO #3 Know how to explain that when two separate quantities are added they equal a third separate quantity.  
SLO #5 Explain what it means to decompose a number into a group of ten and a group of one(s).
- 2. Reason abstractly and quantitatively.**  
SLOs #2 and #3 Reason about the quantities and relationship between two addends and their sum (up to 10).  
SLO #5 Reason about the quantities and relationship between two addends and their sum (between 11 and 19).
- 3. Construct viable arguments and critique the reasoning of others.**  
SLO #2 Construct an argument about what it means to decompose a number into two parts (less than or equal to 10).
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
- 7. Look for and make use of structure.**  
SLO #2 Understand the structure of decomposed numbers (the two addends are equivalent to the number being decomposed).  
SLO #3 Understand the various patterns when adding two numbers to get 10.  
SLO #5 Understand the pattern of decomposing numbers 11-19 (e.g. 12 is equal to 1 group of 10 and two ones).
8. Look for and express regularity in repeated reasoning.

*Bold type identifies possible starting points for connections to the SLOs in this unit.*

Greater Brunswick Charter School Curriculum

Grade level:		K			Subject: Math		Unit #: 4	
Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources	
					Whole Group	Small Group / Stations		
1	<ul style="list-style-type: none"> <li>Composing numbers to 10</li> <li>Counting to 70</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To compose to complete 10 frames.</li> <li>To improve counting skills by 1s to 70</li> </ul>	How can I put two numbers together to make 10.	<i>This is an example of spiraling. This unit gives students a chance to review and firm up composing and decomposing numbers from 1 to 19. While you exposed the students to these concepts in Unit 1 and Unit 3, you have time to review it and ensure mastery of ten frames and larger.</i>	<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	<p>You may wish to reuse p.301-312 in MyMath over the next few days.</p> <ul style="list-style-type: none"> <li><a href="#">39 pages of games and activities with 10 frames.</a></li> <li><a href="#">3 British games for 10 frames practice</a></li> <li><a href="#">If you have a Pinterest account</a></li> <li><a href="#">Activities from K-5 resources</a></li> <li><a href="#">A cute song, if you like those things, for composing to 5.</a> It ends with 10s.</li> </ul>	
2	<ul style="list-style-type: none"> <li>Decomposing numbers to 10s</li> <li>Counting to 70</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To decompose to complete 10 frames.</li> <li>To improve counting skills by 2 over various intervals of 20 from 1 to 70</li> </ul>	When I know one number, how do I know another number to make 10?		<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>		
3	<ul style="list-style-type: none"> <li>Composing and decomposing 10s</li> <li>Counting to 70</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To compose and decompose 10s, 5s.</li> <li>To improve counting skills by 2 over various intervals of 20 from 1 to 70</li> </ul>	How well can I use my addition fact families for numbers up to 10?	<i>Extend the 10 frames to 3 numbers for a challenge.</i>	<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">A dominoes like game composing to 10 and decomposing to 10</a></li> <li><a href="#">More composing to 10</a></li> <li><i>You can make both of these as a table based game as well.</i></li> <li><a href="#">Further math games from the same source</a></li> </ul>	
4	<ul style="list-style-type: none"> <li>Composing numbers to 15</li> <li>Counting to 70</li> <li>Mental addition to 5</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 70</li> </ul>	How can I put two numbers together to make 15. How well can I use my addition fact families for numbers up to 5?	<i>You can do some of the games – table based or computer based – at your teaching station as a small group activity.</i>	<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	<p>You may wish to reuse p.443-474 in MyMath over the next few days.</p> <p>If you need it, <a href="#">a detailed lesson on composing to 19</a></p>	
5	<ul style="list-style-type: none"> <li>Decomposing numbers to 15s</li> <li>Counting to 70</li> <li>Mental addition to 5</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To decompose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 70 starting anywhere</li> </ul>	When I know one number, how do I know another number to make 15? How well can I use my addition fact families for numbers up to 5?	<i>You will see there are no breaks for formal assessments in this unit. Teaching in small groups, you and your aides should know exactly which students are getting it and which are not.</i>	<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">A lesson plan with some activities.</a></li> <li><a href="#">A great lesson plan to extend the pattern for composing numbers to 100.</a></li> </ul>	

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities	Possible Resources		
6	<ul style="list-style-type: none"> <li>Composing and decomposing 15s</li> <li>Counting to 70</li> <li>Mental addition to 7</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 70 starting anywhere</li> </ul>	<p>How well can I use my addition fact families for numbers up to 15?</p> <p>How well can I use my addition fact families for numbers up to 7?</p>	<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			
7	<ul style="list-style-type: none"> <li>Composing and decomposing 15s</li> <li>Counting to 70</li> <li>Mental addition to 7</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>	<p>How well can I use my addition fact families for numbers up to 15?</p> <p>How well can I use my addition fact families for numbers up to 7?</p>	<p><i>If they are doing well, you should be able to extend them to 100 keeping them focused on the pattern. Make sure they see the pattern of 10s. Don't let them think there are 100 different numbers between 1 and 100.</i></p> <ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			
8	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition to 9</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>		<p><i>If some students don't master it, allow the second spiral over the next 10 days do the work for you.</i></p> <ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	<p><a href="#">A computer game composing to 20</a></p> <p><a href="#">A dominoes like game composing to 20 and decomposing to 20</a></p>		
9	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition to 9</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>		<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			
10	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>		<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			

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11	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
12	<ul style="list-style-type: none"> <li>Composing numbers to 10</li> <li>Counting to 70</li> <li>Mental addition to 10</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To compose to complete 10 frames.</li> <li>To improve counting skills by 1s to 100 starting anywhere</li> </ul>		<p><i>On this third lap through the same content and skills, challenge those who are at mastery by:</i></p> <ol style="list-style-type: none"> <li><i>Composing and decomposing as high as they can go – point out that all composing and decomposing is based on ten frames</i></li> <li><i>Counting by intervals other than 1, 2, 5, and 10, i.e. 3, 4, 7. It will help them with multiplication down the road.</i></li> <li><i>Counting to numbers higher than 100 – as far as they can go, helping them see that everything begins all over again after 100.</i></li> <li><i>Performing mental math with sums 20 and larger.</i></li> </ol>	<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	You can use the same resources for this second lap within the unit.
13	<ul style="list-style-type: none"> <li>Decomposing numbers to 10s</li> <li>Counting to 70</li> <li>Mental subtraction to 5</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To decompose to complete 10 frames.</li> <li>To improve counting skills by 2 over various intervals of 30 from 1 to 100 starting anywhere</li> </ul>	<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			
14	<ul style="list-style-type: none"> <li>Composing and decomposing 10s</li> <li>Counting to 70</li> <li>Mental subtraction to 5</li> </ul>	2, 3 1	<ul style="list-style-type: none"> <li>To compose and decompose 10s, 5s.</li> <li>To improve counting skills by 2 over various intervals of 30 from 1 to 100 starting anywhere</li> </ul>	<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>			
15	<ul style="list-style-type: none"> <li>Composing numbers to 15</li> <li>Counting to 70</li> <li>Mental subtraction to 7</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	

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17	<ul style="list-style-type: none"> <li>Composing and decomposing 15s</li> <li>Counting to 70</li> <li>Mental subtraction to 9</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
18	<ul style="list-style-type: none"> <li>Composing and decomposing 15s</li> <li>Counting to 70</li> <li>Mental subtraction to 9</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 15.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
19	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental subtraction to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
20	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental subtraction to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>			<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	

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21	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition and subtraction to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>		<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
22	<ul style="list-style-type: none"> <li>Composing and decomposing 19s</li> <li>Counting to 70</li> <li>Mental addition and subtraction to 10</li> </ul>	1, 4, 5	<ul style="list-style-type: none"> <li>To compose and decompose numbers to 19.</li> <li>To improve counting skills by skip counting by 5s to 100 starting anywhere</li> </ul>		<ul style="list-style-type: none"> <li>Guided Practice</li> <li>Independent Practice</li> <li>Intervention</li> <li>i-Ready</li> </ul>	
23	<p><i>This unit is designed to ensure students receive an amazing amount of practice with:</i></p> <ul style="list-style-type: none"> <li><i>Number facts to 19</i></li> <li><i>Skip counting to 100 by 2s, 5s, 10s, and more</i></li> <li><i>Mental addition and subtraction to 10</i></li> <li><i>The patterns of 10 in all numbers</i></li> </ul> <p><i>to ensure no one is left without mastery.</i></p> <p><i>By using flexible grouping as students gain mastery, you can ensure:</i></p> <ul style="list-style-type: none"> <li><i>Devoted work with strugglers and</i></li> <li><i>Engagement of masters using the same skills with high numbers.</i></li> </ul> <p><i>The unit ensures each student received three spirals on the same content to increase the likelihood of mastery.</i></p>					

<u>Word Wall Candidates</u>		
Skip counting	Composing	Decomposing
Patterns of numbers	Addition	Subtraction