

## NJDOE MODEL CURRICULUM PROJECT

<b>CONTENT AREA: Mathematics</b>	<b>GRADE: K</b>	<b>UNIT: # 2</b>	<b>UNIT NAME: Addition as “adding to” and Subtraction as “taking from”</b>
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STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS	
<b>1</b>	Count and represent with a written numeral a number of objects to 10	<b>K.CC.3</b>	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
<b>2</b>	Write numerals from zero to 10.		
<b>3</b>	Count to 30 by ones and tens.	<b>K.CC.1</b>	Count to 100 by ones and by tens.
<b>4</b>	Count forward beginning from any given number up to 50 -- instead of having to begin at one.	K.CC.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
<b>5</b>	Use objects or drawings to represent and solve addition and subtraction word problems (within 10)	K.OA.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
<b>6</b>	Fluently add within 5.	<b>K.OA.5</b>	Fluently add and subtract within 5.
<b>7</b>	Classify and sort objects into given categories and count the objects in each category (up to 10 objects).	K.MD.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.3

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

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Selected Opportunities for Connection to Mathematical Practices
<ol style="list-style-type: none"> <li><b>1. Make sense of problems and persevere in solving them.</b> SLO #5 Think about and make sense of the steps to solve addition and subtraction word problems.</li> <li><b>2. Reason abstractly and quantitatively.</b> SLO #1 Understand that the quantity of objects is represented by its corresponding written numeral. SLO #5 Think and reason about the quantities and their relationships to each other (either addition or subtraction) in word problems</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li><b>5. Use appropriate tools strategically.</b> SLO #5 Consider and use available tools (drawings and diagrams) to help understand how to solve addition and subtraction word problems.</li> <li>6. Attend to precision.</li> <li><b>7. Look for and make use of structure.</b> SLO #7 Use patterns or structure to classify objects and understand the numerical relationship between the classified objects.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>

*type*

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

## Greater Brunswick Charter School Curriculum

Grade level: <b>K</b>		Subject: <b>Math</b>			Unit #: <b>2</b>		
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>Chapter 4 review</li> <li>Count to 12</li> <li>Write numbers to 10</li> </ul>					<ul style="list-style-type: none"> <li>Differentiated intervention as needed</li> <li>Review Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	<ul style="list-style-type: none"> <li>MyMath p.312-316</li> <li>Do your counting while waiting in line</li> </ul>
2	<ul style="list-style-type: none"> <li>Addition</li> <li>Count to 12 not starting at 1</li> </ul>		To determine readiness for further content and focus on vocabulary	<i>Do I know what I need to know for what is coming?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	<ul style="list-style-type: none"> <li>MyMath p.319-324</li> <li>Do your counting while waiting for things to be cleaned up</li> </ul>
3	<ul style="list-style-type: none"> <li>Addition stories</li> <li>Count to 19</li> <li>Write numbers to 10</li> </ul>	2, 4, 5	To add one-digit numbers using stories	<i>How can I use objects to add?</i>	<i>Counting: Ensure students conceptualize the teens pattern. 20 is the beginning of the next pattern.</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	<ul style="list-style-type: none"> <li>MyMath p.325-330</li> <li>Do your counting like a countdown except going up</li> </ul>
4						<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.331-338
5	<ul style="list-style-type: none"> <li>Using the + symbol</li> <li>Count to 19</li> </ul>	2, 4, 5, 6	To recognize the meaning of the + symbol	<i>How can symbols tell me what to do?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.339-344, 443-448
6	<ul style="list-style-type: none"> <li>Using the = symbol</li> <li>Count to 19 not starting at 1</li> </ul>	2, 4, 5, 6	To recognize the meaning of the = symbol		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.345-350	

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
7	<ul style="list-style-type: none"> <li>The words “in all”</li> <li>Count to 29</li> <li>Write numbers to 10</li> </ul>	2, 4, 5, 6	To define the words “in all” in mathematical terms	<i>How can words tell me what to do?</i>	<i>While this is their first entre into key words, the best idea is to focus students on seeing what is happening in their mind, like a movie, instead of relying on key words that won't always mean the same thing.</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.351-356
8	<ul style="list-style-type: none"> <li>Making a number sentence</li> <li>Count to 29 not starting at 1</li> </ul>	2, 4, 5, 6	To take real world events and write them as an operation with numbers	<i>How can I show, with math, what is happening?</i>	<i>Counting: Ensure students conceptualize the patterns by 10s</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.357-362
9	Addition					<ul style="list-style-type: none"> <li>Review</li> <li>Assessment</li> </ul>	
10	<ul style="list-style-type: none"> <li>Making 10s</li> <li>Count to 30</li> </ul>	2, 4, 5, 6	To determine the number needed to add to another number to make 10	<i>How can I make 10 quickly with the number I already have?</i>	<i>This standard is not listed in the SLOs for this unit, but it's in the book here and easy to do it, and it is a crucial skill for students that should be addressed at every opportunity</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.363-370 <a href="#">MathPlayground</a> <a href="#">SnappyMaths</a> <a href="#">YouTube</a> <a href="#">BrainPopgames</a>
11	<ul style="list-style-type: none"> <li>Write numbers to 10</li> </ul>		<i>This is such an important concept for students, please take two days on it to ensure they are fluent and have mastered it.</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>			
12	<ul style="list-style-type: none"> <li>Addition</li> <li>Count to 30 not starting at 1</li> </ul>	1, 2, 3, 4, 5, 6	To determine weaknesses for improvement			<ul style="list-style-type: none"> <li>Differentiated intervention as needed</li> <li>Review Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.369-374
13	Addition	1, 2, 3, 4, 5, 6				<ul style="list-style-type: none"> <li>Review</li> <li>Assessment</li> </ul>	
14	<ul style="list-style-type: none"> <li>Subtraction</li> <li>Count to 39</li> <li>Write numbers to 10 not starting at 0</li> </ul>		To determine readiness for further content	<i>What do I know so far?</i>	<i>Counting: Ensure students conceptualize the patterns by 10s</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.377-382

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
15	<ul style="list-style-type: none"> <li>Subtraction stories</li> <li>Count to 39 not starting at 1</li> </ul>	5, 6	To subtract one-digit numbers using stories	<i>How can I use objects to subtract?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.383-388
16						<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.389-396
17	<ul style="list-style-type: none"> <li>Using the – symbol</li> <li>Count to 40</li> </ul>	5, 6	To recognize the meaning of the - symbol	<i>How can symbols tell me what to do?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.397-402
18	<ul style="list-style-type: none"> <li>Using the = symbol in subtraction</li> <li>Count to 49</li> </ul>	5, 6	To recognize the meaning of the = symbol		<i>Counting: Ensure students conceptualize the patterns by 10s</i>	<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.403-408
19	<ul style="list-style-type: none"> <li>The words “are left”</li> <li>Count to 49 not starting at 1</li> </ul>	5, 6	To define the meaning of the words “are left”	<i>How do words tell me what to do?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.409-414
20	<ul style="list-style-type: none"> <li>Making a number sentence using subtraction</li> <li>Count to 50</li> <li>Write numbers to 10 not starting at 0</li> </ul>	5, 6	To take real world events and write them as an operation with numbers	<i>How can I show, with math, what is happening?</i>		<ul style="list-style-type: none"> <li>Warm-up</li> <li>Lesson &amp; Guided Practice</li> <li>Independent Practice</li> <li>i-Ready</li> </ul>	MyMath p.415-420

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
21	<ul style="list-style-type: none"> <li>• Taking apart 10s</li> <li>• Count to 50 not starting at 1</li> </ul>	5, 6	To determine the number left when another number is taken from 10	<i>How can I make 10 quickly with the number I already have?</i>	<i>The other direction of the foundational Making 10s. Reminding them of their Making 10s bonds is a good idea.</i>	<ul style="list-style-type: none"> <li>• Warm-up</li> <li>• Lesson &amp; Guided Practice</li> <li>• Independent Practice</li> <li>• i-Ready</li> </ul>	MyMath p.421-426 <a href="#">GregTeng</a>
22						<ul style="list-style-type: none"> <li>• Warm-up</li> <li>• Lesson &amp; Guided Practice</li> <li>• Independent Practice</li> <li>• i-Ready</li> </ul>	
23	Subtraction	1, 2, 3, 4, 5, 6	To determine weaknesses for improvement			<ul style="list-style-type: none"> <li>• Differentiated intervention as needed</li> <li>• Review Practice</li> <li>• Independent Practice</li> <li>• i-Ready</li> </ul>	MyMath p.427-432
24	Subtraction	1, 2, 3, 4, 5, 6				<ul style="list-style-type: none"> <li>• Review</li> <li>• Assessment</li> </ul>	
25	Sorting and counting	7	To sort items by characteristics and count the number in each group	<i>How do I know there is more of some things than others?</i>	<i>This is not in the book. You will need to improvise items and sorting activities</i>	<ul style="list-style-type: none"> <li>• Warm-up</li> <li>• Lesson &amp; Guided Practice</li> <li>• Independent Practice</li> <li>• i-Ready</li> </ul>	
26	Classifying and removing		To start with a group and determine how many of a specific category have been removed			<ul style="list-style-type: none"> <li>• Warm-up</li> <li>• Lesson &amp; Guided Practice</li> <li>• Independent Practice</li> <li>• i-Ready</li> </ul>	
31							
32							
<b>Word Wall Candidates</b>							
Are left		Take away		Minus		Subtract	
Add		Plus		In all		- + =	

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Authentic Application

Your Goal: To count how many students in the class have the same characteristic and how many are left that do not

The Situation: Decide on two characteristics of students in the class, like hair color, or shirt color that day, or something you think up.

Pick out 10 students to use for your group

Count how many students are in the group that has each characteristic and how many has both characteristics

Subtract to find out how many students in your group do not have one characteristic, how many don't have the other characteristic, and how many don't have either characteristic.

Your product: List your results in the boxes like shown below

Draw the characteristics in the boxes below	How many students have each characteristic	How many students do not have the characteristic

Success Criteria: You have to count accurately, show your subtraction, and give the numbers in the boxes neatly.

