

NJDOE MODEL CURRICULUM PROJECT

CONTENT AREA: Mathematics

GRADE: K

UNIT: # 1

UNIT NAME: Number Names and Count Sequences

STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS	
1	Count by ones up to 10	K.CC.1	Count to 100 by ones and by tens.
2	Represent the number of objects by the correct numeral up to 5 (using zero to represent no objects).	K.CC.3	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).
3	Assign an ascending number name for each object in a group.	K.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality. <ul style="list-style-type: none"> a) when counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b) Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c) Understand that each successive number name refers to a quantity that is one larger.
4	For objects named in the standard order, identify the last number named as the number of counted objects in the set (regardless of the order they are counted).		
5	Know the next number name in counting is always one greater than the previous number.		
6	Answer “how many?” questions about groups of objects up to 10 when arranged in a line or up to 5 in a scattered configuration.	K.CC.5	Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
7	Create addition and subtraction events with objects (or make drawings) to represent a sum (putting together) or a difference (taking from) up to 10.	K.OA.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

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 #7 Reason about and make sense of addition and subtraction events by drawing pictures and using diagrams to represent the sums or differences.

2. Reason abstractly and quantitatively.

SLO #2 Make sense of the numbers 1 through 10 and understand that they represent quantities.

SLO #4 For objects named in order, understand the relationship of the last named number to the quantity of the set.

SLO #6 Make sense of number relationships (up to 10) using objects regardless of configuration.

3. Construct viable arguments and critique the reasoning of others.

4. Model with mathematics.

SLO #7 Make sense of and reason about addition and subtraction events (up to 10) by using pictures and diagrams to map or represent the equations relationships.

5. Use appropriate tools strategically.

6. Attend to precision.

7. Look for and make use of structure.

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 #: 1		
Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources (in addition to MyMath)
					Whole Group	Small Group / Stations	
1	0 to 3	1, 2, 3, 4, 5, 6	Count by ones up to 3.	<i>How do we show how many?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.11-16
2	0 to 3	1, 2, 3, 4, 5, 6	Represent the number of objects with the correct numeral up to 3	<i>How do we write to someone else there are 3 of them?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.17-22
3	4 & 5	1, 2, 3, 4, 5, 6	Count by ones up to 5	<i>How do we know there are five of them?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.23-28
4	4 & 5	1, 2, 3, 4, 5, 6	Represent the number of objects with the correct numeral up to 5	<i>How do we write to someone else there are 4 or 5 of them?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.29-35
5	0	1, 2, 3, 4, 5, 6	Represent 0	<i>How do we write there is nothing there?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.35-40
6	<ul style="list-style-type: none"> • 0-5 • Equal 	1, 2, 3, 4, 5, 6	Determine when two quantities are equal	<i>What do we say if two groups have the same number of things?</i>		<ul style="list-style-type: none"> • Assess • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.41-42 MyMath p.43-48

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7	<ul style="list-style-type: none"> • More Than, Greater Than • Fewer Than, Less Than 	1, 2, 3, 4, 5, 6	Identify groups that have more than and less than the other group of items	<i>If two groups don't have the same number of things, what do we say about them?</i>	Consider teaching these two concepts together, since they are inseparably linked. If two things are not equal, then one must be greater than the other while the other is less than the other.	<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.49-60
8	Comparing numbers 0-5	1, 2, 3, 4, 5, 6	Identify which group of two has more items or less items	<i>How does counting help us know which group is greater than another?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.61-66
9	One more	1, 2, 3, 4, 5, 6	Identify when one group has one more item than another	<i>How much further do I count to get one more?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.69-74
10	Diagrams	1, 2, 3, 4, 5, 6	Draw a diagram to represent a numerical count	<i>How can I show how many?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.75-80
11	<ul style="list-style-type: none"> • Counting and writing 0-5 • Comparing groups 	1, 2, 3, 4, 5, 6				<ul style="list-style-type: none"> • Review • RTI as needed • Assessment 	MyMath p.81-84
12	6, 7 & 8	1, 2, 3, 4, 5, 6	Count by ones up to 8	<i>How do we know there are 8 of them?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.93-104
13	6, 7, & 8	1, 2, 3, 4, 5, 6	Represent the number of objects with the correct numeral up to 8	<i>How do we write to someone else there are 8 of them?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.105-110

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					Whole Group	Small Group / Stations	
14	9 & 10	1, 2, 3, 4, 5, 6	<ul style="list-style-type: none"> Count by ones up to 10 Represent the number of objects with the correct numeral up to 10 	<ul style="list-style-type: none"> How do we know there are 10 of them? How do we write to someone else there are 10 of them? 		<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.111-130
15	6-10	1, 2, 3, 4, 5, 6	Review counting and writing 0-10	<i>How can I count one thing in a large group of many things?</i>		<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.131-136
16	Comparing 0 to 10	1, 2, 3, 4, 5, 6	Make a 1-to-1 correspondence to help compare large groups of objects.	<i>How can I be sure I am counting correctly?</i>		<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.137-142
17	One more to 10	1, 2, 3, 4, 5, 6	Identify when one group has one more item than another	<i>How much further do I count to get one more?</i>		<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.145-150
18	Ordinal numbers	1, 2, 3, 4, 5, 6	Use ordinal numbers to place items in order	<i>How do I know what place I'm in line?</i>	<ul style="list-style-type: none"> Simplify this concept for students by placing the numerals and ordinals in a chart on your Word Wall. Practice this every time you have students line up. 	<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.157-162 Ordinal chart Spanish ordinals Colorful chart
19	6 to 10 Ordinals	1, 2, 3, 4, 5, 6				<ul style="list-style-type: none"> Review Assessment 	
20	11 to 15	1, 2, 3, 4, 5, 6	<ul style="list-style-type: none"> Count by ones up to 15 Represent the number of objects 	<ul style="list-style-type: none"> How do we know there are 15 of them? How do we write to 	<ul style="list-style-type: none"> Expose students to these in groups of five to reinforce a pattern of 5 on the way to 10 frames. 	<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.179-196

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21			with the correct numeral 11 to 15	<i>someone else there are 15 of them?</i>	<ul style="list-style-type: none"> Reinforce the pattern from 1-5 repeating in 11-15. The more you can reinforce the patterns of numbers the better you are serving the students for later math understanding. 	<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	
22	16-20	1, 2, 3, 4, 5, 6	<ul style="list-style-type: none"> Count by ones up to 15 Represent the number of objects with the correct numeral 11 to 15 	<ul style="list-style-type: none"> How do we know there are 15 of them? How do we write to someone else there are 15 of them? 	<ul style="list-style-type: none"> Expose students to these in groups of five to reinforce a pattern of 5 on the way to 10 frames. Reinforce the pattern from 6-10 repeating in 16-20, especially 20. The more you can reinforce the patterns of numbers the better you are serving the students for later math understanding. 	<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.197-216
23	Diagrams	1, 2, 3, 4, 5, 6	Draw a diagram to represent a numerical count	<i>How can I show how many?</i>		<ul style="list-style-type: none"> Explore & Explain See & Show On My Own i-Ready 	MyMath p.217-222
24	11-20	1, 2, 3, 4, 5, 6				<ul style="list-style-type: none"> Review Assessment 	
25	RTI on 1 to 20 Counting patterns	1, 2, 3, 4, 5, 6			Ingrain the patterns of counting in students by using voice inflection to help them see that the number 1 to 50 are not separate numbers, but the same numbers with a tens digit in from of them.	<ul style="list-style-type: none"> RTI as needed following assessment Counting Practice i-Ready 	MyMath p.225-230

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					Whole Group	Small Group / Stations	
26	Patterns	1, 2, 3, 4, 5, 6	To use the same strategies for 21-50 that were used in 1-10 and 11-20	<i>How are using the numbers from 21 to 50 just like the numbers from 1 to 10?</i>	Do all of the same comparing, counting as was done in the earlier parts of the unit. Begin to use a number line to help student visualize where the numbers are in the counting and conceptualizing process.	<ul style="list-style-type: none"> • RTI as needed each day • Explore & Explain • See & Show • On My Own • i-Ready 	
27	Composing and decomposing 4 & 5	7	To identify two parts that, when combined, make a larger number	<i>How can I put things together to make more?</i>	Consider teaching these concepts together since what can be combined to make a number can also be separated from the number.	<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.257-268
28	Composing and decomposing 6 & 7	7	To identify two parts that, when combined, make a larger number	<i>How can I put things together to make more?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.269-280
29	Composing and decomposing 4, 5, 6, 7	7	To identify two parts that, when combined, make a larger number	<i>How can I put things together to make more?</i>		<ul style="list-style-type: none"> • RTI as needed, or • Act It Out • i-Ready 	MyMath p.287-288 MyMath p.281-286
30	Composing and decomposing 8 & 9	7	To identify two parts that, when combined, make a larger number	<i>How can I put things together to make more?</i>		<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.289-300
31	Composing and decomposing 10	7	To identify two parts that, when combined, make a larger number	<i>How can I put things together to make more?</i>	Making 10s is a crucial skill. Emphasize this and ensure all students understand the concept.	<ul style="list-style-type: none"> • Explore & Explain • See & Show • On My Own • i-Ready 	MyMath p.301-312
32	Composing and decomposing 4-10	7				<ul style="list-style-type: none"> • Review • Assessment 	

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<u>Word Wall Candidates</u>							
The spelling of each number from Zero to Twenty							
The spelling of each ordinal from First to Twentieth							
Compare		Greater Than		Less Than	Equal	Not Equal	
<u>Authentic Application</u>							
Number Book: Children will create a Number Book in order from 1-10 figuring out a variety of ways to recognize and represent numbers in the process.							
What you will need:							
<ul style="list-style-type: none"> • Old newspapers or magazines • Plain paper or construction paper • Safety scissors • Glue • Markers or crayons • A stapler or brass clips, for binding the book when complete 							
What You Do:							
Gather a stack of old magazines and newspapers.							
Tell the children that they will be making a book that shows each number in a fun way. (Numbers 1-10)							
Working on just one number at a sitting, let each child experiment with all the different ways he can create a number. (This is a good brainstorming activity).							
As the child is creating the book, be sure to keep each number page separate.							
When all pages are complete, bind the book (with a stapler or brass fasteners) in number order, with the child's help.							