NJDOE MODEL CURRICULUM PROJECT

CONTENT AREA: Mathematics	GRADE: K	UNIT: # 3	UNIT NAME: Compare Numbers and Shapes

Anticipated finish: Week of February 15

	STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS
1	**Count and represent with a written numeral a number of objects to 20.**	**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).
2	**Write numerals from zero to 20.**		
3	Count to 30 by ones and tens.	**K.CC.1**	Count to 100 by ones and by tens.
4	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. (groups of up to 10 objects).	K.CC.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
5	Compare numbers (up to 10) written as numerals.	K.CC.7	Compare two numbers between 1 and 10 presented as written numerals.
6	Describe measurable attributes of objects, e.g., length and weight.	K.MD.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
7	Directly compare and describe two objects with a measurable attribute in common using “more of”/”less of” the attribute. For example, directly compare the heights of two children and describe one child as taller/shorter.	K.MD.2	Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*
8	Analyze and compare two- and three-dimensional shapes in different sizes and orientations by counting sides or vertices (“corners”) or comparing attributes such as side lengths.	K.G.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).

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 #1 Understand that the quantity of objects is represented by its corresponding written numeral.
   SLO #7 and #8 Use given information to compare either two similar or dissimilar objects by analyzing the objects' attributes.
2. **Reason abstractly and quantitatively.**
   SLO #4 Analyze the relationship between two groups of objects as either equivalent or non-equivalent.
   SLO #4 Abstractly reason about the numerical relationship (greater than, less than or equal to) between groups in order to reach a conclusion about the groups.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
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 #: 3**

Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
1	• Take Apart Numbers 11 to 15	1,2,3,4,5	Make 10 to show numbers 11 to 15	*When we take apart a number do we make a new number?*		• Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 7.2 p.449-454 Practice Counting SnappyMath Mat
2	• Problem Solving: Making a Table	1,2,3,4,5	Make a table showing 10 and some more	*How can making table help you make a number?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 7.3 p. 455-460 Reteach Master p. 66
3	• Checking Progress • Make Numbers 16 to 19 • Take Apart Numbers 16 to 19	1,2,3,5	Make 10 to show numbers 16 to 19	*When we take apart a number do we make a new number? How does making 10 help us count on?*	*Checking Progress: Work on first in small group to be able to individualize the instruction based on their needs.*	• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 7.CP p. 461-462 Practice Counting
4						• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 7.4 & 7.5 p. 463-474
5	• Review Chapter 7		Compose and Decompose Numbers 11 to 19	*How do we show numbers 11 to 19 in another way?*		• Warm-up • RTI as needed • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 7.Review p. 475-478 Reteach Masters Enrichment Masters Fact Dash
6	• Assessment Chapter 7					• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath Summative Assessment

7	• Compare Length	6,7	Compare lengths in terms of "shorter" and "longer"	*How do I describe and compare objects by length?*	*Formative Assessment Have students choose two objects and they tell you which one is longer and shorter. Make sure they use the words longer and shorter*	• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.1 p. 489-494 Long and Short Online Activity
8	• Compare Height	6,7	Explore and explain height in terms of "taller" and "shorter"	*How do I describe and compare objects by height?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.2 p. 495-500 • Tall and Short Online Activity • YouTube Short and Tall Song
9	Problem Solving: Guess, Check, & Revise	1,2,6,7	Use Guess, Check, and Revise to determine which object is longer	*How can I guess how much longer or shorter an object is?*		• Warm-Up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.3 p. 501-506
10	Checking Progress	6,7	Review concepts of longer, shorter, taller, and shorter			• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.CP p. 507-508 • My Teaching Station • Measurement Activity Sheet Reteach Masters
11	Compare Weight	6,7	Explore and explain weight in terms of "heavier" and "lighter"	*How can I determine how heavy or light something is?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.4 p. 509-514 Bert and Ernie YouTube Video
12	• Describe Length, Height, and Weight	6,7	Describe and compare objects by length, height, and weight	*How can I compare length, height, and weight of different objects?*		• Differentiated intervention as needed • Review Practice • Independent Practice • i-Ready	MyMath 8.5 p. 515-520
13	Capacity	6,7	Determine if an object holds more or less	*How can I decide which object can hold more?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.6 p. 521-526

14	Review Chapter 8	6,7				• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 8.Review p.527-530 Review Measurement Song – Go to Teacher Website "Songs" Chapter 8
15	Assessment					• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath Summative Assessment
16	Squares and Rectangles	8	Identify and differentiate between squares and rectangles	*What is the difference between a square and rectangle?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 11.1 p. 623-628
17	• Circles and Triangles	8	Identify circles and triangles	*How can I compare shapes?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 11.2 p. 629-634
18	• Squares, Rectangles, and Circles	8	Explore and explain different shapes			• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 11.3 p. 635-640 Shape Song
19	• Hexagons	8	Identify hexagons	*How can I describe a shape using the words sides and vertices?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 11.4 p. 641-646
20	Checking Progress	8	Identifying 2-D Shapes	*Note: You will be moving on to Chapter 12 after this lesson. Make sure students have understanding of 2-D shapes…if they are struggling take a day or two to go back and reinforce lacking skills.*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 11.CP p.647-648

21	Spheres and Cubes	8	Identify spheres and cubes	*What are some words I can use to compare shapes?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 12.1 p. 693-698
22	Cylinders and Cones	8	Identify cylinders and cones	*How do I identify and compare 3-D shapes?*		• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	MyMath 12.2 p. 699-704
23	Compare Solid Shapes	8	Compare cylinders, cones, spheres, and cubes			• Differentiated intervention as needed • Review Practice • Independent Practice • i-Ready	MyMath 12.3 p. 705-710 Identify Solid Figures Online Activity
24	Checking Progress	8	3-D Shapes			• Review • Assessment	MyMath 12.CP p. 711-712 3-D Shape YouTube Video
25	Review				*This is not in the book. You will need to improvise items and activities*	• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	
26	Optional Assessment Chapter 11&12		To start with a group and determine how many of a specific category have been removed	*Make sure students have a good understanding of 2-D and 3-D Objects. Take the time to review skills if students are struggling with any of the objects.*	*Since not all of Chapter 11 and 12 were covered during this unit, you can decide to create a combined chapter assessment based on the lessons covered*	• Warm-up • Lesson & Guided Practice • Independent Practice • i-Ready	

Word Wall Candidates

capacity	heavier	height	holds less	holds more
length	lighter	longer	shorter	taller
circle	hexagon	rectangle	side	straight
vertex	cone	cube	cylinder	sphere
triangle	weight	square		

Authentic Application

Your Goal:	#1	Identify 2-D and 3-D Objects and place them in the ten-frames and count how many more.
	#2	Students will each draw a life size outline of themselves and will determine if their drawing is longer or shorter than their partner, taller, or shorter, and heavier or lighter. They will write their answer in the following format on their drawing. "I am (taller) or (shorter) than…" "I am (longer) or (shorter) than…" etc.
The Situation:	#1	Utilize magazines, old books, etc. Students will cut out pictures and place them on the ten frames to count how many more
	#2	Students will choose a partner and draw their outlines
Your product:	#1	Fill in the 10-Frames (Need copies of Work Mat 3) and the complete the number sentences
	#2	Determine whether their drawing is longer, shorter, taller, shorter, heavier or lighter than their partners by labeling their drawings.

Success Criteria: You have to count accurately, show your work, and complete neatly.