

NJDOE MODEL CURRICULUM

CONTENT AREA: Mathematics

GRADE: 2

UNIT: # 1

UNIT NAME: Add and Subtract within 100

STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS	
1	Add and subtract within 20 to solve 1- and 2-step word problems with unknowns in any position.	2.OA.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1
2	Represent a 3-digit number as specific amounts of 100s, 10s, and 1s.	2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
3	Identify ten tens as 100 and represent two hundred, three hundred, ..., nine hundred with 2, 3, ..., 9 hundred bundles (with zero tens and zero ones).		
4	Skip count by 5s and 10s up to 100 ... beginning at any multiple of 5.	2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s.
5	Read numbers to 1000 using base-ten numerals, number names, and expanded form.	2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
6	Write numbers to 1000 using base-ten numerals, number names, and expanded form.		
7	Use symbols $>$, $=$, $<$, to record the results of comparing two 3-digit numbers by decomposing the number into a number of 100s, 10s, and 1s.	2.NBT.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

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 Analyze the information given and relationships in addition and subtraction word problems.

SLO #4 Analyze the initial number or sequence given to skip count by 5s.

SLO #7 Analyze the information given to understand the relationships between two 3-digit numbers.

2. **Reason abstractly and quantitatively.**

3. SLO #1 Understand and make sense of the quantities in word problems.

SLO #4 Understand and make sense of the relationship among the numerical values when skip counting by 5s.

SLO #7 Make sense of the quantities and their relationship to each other when comparing two 3-digit numbers.

4. **Construct viable arguments and critique the reasoning of others.**

SLO #7 Create an argument using $<$, $>$, or $=$ symbols when comparing two 3-digit numbers.

5. **Model with mathematics.**

SLO #1 Apply previously learned mathematical skills to solve 1 and 2-step addition and subtraction word problems.

SLO #4 Apply previously learned skip counting skills to skip count by 5 up to 100.

6. Use appropriate tools strategically.

7. **Attend to precision.**

SLO #7 Understand the meaning of the $<$, $>$, or $=$ symbols when comparing two 3-digit numbers. Use the aforementioned symbols appropriately and consistently.

8. **Look for and make use of structure.**

SLO #2 Understand the pattern of decomposing numbers when representing 3-digits numbers

SLO #3 Understand the structure when identifying and representing bundles of ten tens.

SLO #7 Understand the pattern regarding place value and decomposition when comparing two 3-digit numbers.

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: 2		Subject: Math			Unit #: 1		
Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
1	Addition Properties	1	Use the commutative and identity property to find sums	<i>How does a position of a digit in a number affect its value?</i>		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.11-16
2	Count on to Add	1	Use a number line to count when adding	<i>Why should I count on from the greater addend?</i>	<i>Follow up to lesson... Which number should you start with when you count on? Why?</i>	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.17-22
3	Doubles and Near Doubles	1	Use double and near doubles to add	<i>How does knowing doubles facts help me with near doubles facts?</i>	<i>Exit Ticket</i> Assign each student a number between 1-10. Tell students they can line up once they hear you say the double of their number. Give them extra (points, ticket, spot in line...) if they can do the sum of the double +1.	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.23-28 IXL HelpingWithMath
4	Make a 10	1	Make a 10 to solve addition problems.	<i>How can I use making a 10 when adding?</i>		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.29-34
5	Add Three Numbers	1	Group addends differently to make the same sum	<i>How can I group addends to make a sum?</i>	<i>Review</i> Make 10s Doubles/+1	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.35-40 Lesson 5 Reteach

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6	<ul style="list-style-type: none"> • Problem Solving • Review Practice 	1	<ul style="list-style-type: none"> • Write a number sentence to solve problems • Review and practice strategies used to add 	<ul style="list-style-type: none"> • <i>How can I use number sentences to solve problems?</i> • <i>What clue words can help me decide whether to add or subtract?</i> • <i>How can creating a picture in my mind help me solve math problems?</i> • <i>What thinking process do I use to solve math problems?</i> 	<ul style="list-style-type: none"> • <i>Number Sentence Lesson will be completed whole group</i> • <i>Exit Ticket</i> • <i>Students will complete Check My Progress p.47-48</i> 	<i>Independent Practice:</i> Students will work in pairs to complete MyMath p.42-44 and share their work with the group.	MyMath p.41-48 HelpingWithMath
7							
8	Enrichment/Intervention	1	Utilize various strategies to add	<i>What strategies can I use when I add?</i>		<i>Enrichment Group</i> Vocabulary Posters (Chapter Project) <i>Intervention Group</i> (Teacher Directed) My Vocabulary Cards	<i>Intervention Group</i> MyMath p.5-10 <i>Enrichment Group</i> Teacher's Edition 10A i-Ready
9	Subtract All and Subtract Zero	1	Subtract all or zero to find the difference	<i>Why does subtracting zero leave me with the same number?</i>	<i>Exit Activity</i> In order to line up, give students a subtraction problem where the difference is zero or the original number	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.55-60
10	Count Back to Subtract	1	Count back to find the difference (using a number line)	<i>How can counting back help me subtract?</i>	<i>Review</i> Using a number line to add	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.49-54 NCTM

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11	Using Doubles to Subtract	1 2.OA.1	Use doubles facts to find the difference	<i>How does knowing doubles facts help me subtract?</i>	<i>Review:</i> Addition using double facts <i>Exit Ticket:</i> MyMath Checking Progress p.67-68	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.61-66
12	Relate Addition and Subtraction	1	Use addition facts to subtract	<i>How are addition and subtraction related?</i>	<i>Exit Ticket:</i> Have students volunteer to give a related addition and subtraction problem	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.69-74
13	Fact Families	1	Use related facts to write fact families	<i>How can fact families help me add and subtract?</i>		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.81-86 Pinterest Literacy Resource: “The Fact Family: A Teaching Rhyme About Inverse Number Relationships” by: Sandy Turley
14	Missing Addends	1	Use subtraction facts to find missing addends.	<i>How can we use addition and subtraction to find a missing addend?</i>		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath pp75-80
15	Two-Step Word Problems	1	<ul style="list-style-type: none"> • Solve word problems that involve two steps. • Identify patterns to determine whether to add or subtract • Recognize key words to add or subtract 	<ul style="list-style-type: none"> • What key words help to determine whether to add or subtract? • How can patterns help identify important information? 	<i>Exit Ticket:</i> Formative Assessment <i>Teachers Edition p.91-92</i>	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.97-92 2ndGradeWork Teachervision

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16	Review & Reflect	1	Review, reflect, and apply addition and subtraction concepts	What strategies can be used to add or subtract?	<ul style="list-style-type: none"> • Independent Review and Practice • Guided Review 		MyMath p.93-98
17	Assessment	1					MyMath Summative Assessment
18	Skip Count by 2s, 5s, and 10s	1,4	Model skip counting to find the total in equal groups	What patterns do I see when I skip count by 2s, 5s, and 10s?	<i>Exit Ticket:</i> Students will use counters to model skip counting by 5s	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.113-118
19	Skip Count on a Hundred Chart	1,4	Use patterns to skip count	<ul style="list-style-type: none"> • When would I use skip counting? • How does skip counting help with addition? 		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.107-112 Education.com Media2
20	Problem Solving	1,4	Find a pattern to solve a problem	<ul style="list-style-type: none"> • How do patterns help visualize concepts? • How do I know the answer is reasonable? 	Review skip counting, key words, and identifying what you need to know and what you need to find out <i>Exit Ticket:</i> <i>Formative Assessment Task</i> <i>Teacher Edition pp123-124</i>	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.119-124 MyMath Reteach Sheet – Lesson 3

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
21	Enrichment & Intervention		Review concepts from the chapter		Check My Progress	<i>Enrichment Activity</i> <i>I-Ready Beyond Level Activities</i> <i>Teacher Directed: Intervention Activity</i> <i>Reteach Activity</i>	MyMath p.125-126 MyMath Reteach Sheets
22	Repeated Addition	1,4	Use repeated addition to add equal groups	How does repeated addition help with addition of equal groups?		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.127-132
23			Use arrays with repeated addition	How does an array help create a number sentence?		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.133-138
24	Even and Odd Numbers	1,4	Find even and odd numbers in number patterns	When may I use even and odd numbers?	Review skip counting by 2s, link to even numbers	<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p. 139-144 Pinterest YouTube Brainpop
25	Sums of Equal Numbers		Find sums of equal numbers	How can equal groups help me find a sum?		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.145-150

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26	Enrichment & Intervention Review		<ul style="list-style-type: none"> Review Even and Odd patterns Review using repeated addition patterns 			<p><u>Teacher Guided Enrichment Group</u> Need: #Cubes & Two-Color Counters Beyond Level Activity Teachers Edition p.99B</p> <p><u>Teacher Guided Intervention Group</u> Need: Connecting cubes, hundreds chart, crayons On Level Activity Teachers Edition p.99B</p>	<p>i-Ready</p> <p>MyMath Reteach Sheet</p> <p>LearningGames</p> <p>SoftSchools</p> <p>2ndGradeWork1</p> <p>2ndGradeWork2</p>
27	Fluency Practice		<ul style="list-style-type: none"> Students practice addition of whole numbers Students practice subtraction of whole numbers 		<ul style="list-style-type: none"> Give students timed addition activity – 2 mins Give students times subtraction activity – 2 mins 	<p>Teacher Directed Students will bring their timed addition and subtraction activity to small group. Students will work together to discuss the pattern they used to answer the problem (Repeated addition, equal groups, skip counting, doubles+1) and share with the group.</p>	<p>i-Ready</p> <p>Addition fluency worksheet</p> <p>Students will work together to make 10 addition and 10 subtraction problems using a pattern</p>

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28	Review	1,4		How do number patterns help me add and subtract?		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.153-154
29	Review and Reflect	1,4	Show how equal groups help in addition	How do equal groups help me?		<ul style="list-style-type: none"> • Lesson • Guided Practice • Ind. Practice • i-Ready 	MyMath p.156
30	Assessment	1,4				Assessment	MyMath Summative Assessment
Word Wall Candidates							
Array Odd		Add Skip count		Equal groups Subtract		Repeated addition Minus	Even Plus
Authentic Application							
Your Goal: To write and illustrate an equation using a number pattern							
Your Role: You are a teacher at the beginning of the school year and have to set up desks for your students							
Your Audience: The Principal							
Your Situation: You are a new teacher, the Principal gave you your class list for the school year. You have 17 total students. Draw, color, and label a picture of how you will set up your classroom desks. Make sure that your boy desks are green and your girl desks are red. Write a number sentence to go with your picture and explain what number pattern you used.							
Success Criteria: Number sentence is correct, picture is illustrated neatly, and explanation of number pattern is written clearly and is correct.							