

CONTENT AREA: Mathematics	GRADE: 2	UNIT: # 4	UNIT NAME: Addition and Subtraction Using Place-Value and Measurement
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STUDENT LEARNING OBJECTIVES		CORRESPONDING CCSS	
1	Apply properties of place value to mentally add or subtract 10 or 100 to/from a given number within 100-900.	2.NBT.8	Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
2	Apply addition and subtraction strategies based on place value and the properties of operations and explain why these strategies work using drawings or objects. For example, $37 + 12 = 49$ because $37 + 12$ equals $30 + 7 + 10 + 2$ (place value) which equals $30 + 10 + 7 + 2$ (property of operations).	2.NBT.9	Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations can be supported by drawings or objects).
3	Add and subtract within 100 in word problems involving lengths using a symbol to represent the unknown number. For example, if Angela needs 30 feet of ribbon for gifts, but she only has 17 feet, equations $17 + x = 30$ and $30 - x = 17$ both represent the x feet she still needs.	2.MD.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
4	Use a number line to represent the solution of whole number sums and differences related to length within 100 by using equally spaced points.	2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
5	Tell and write time using analog and digital clocks to the nearest five minutes using AM and PM.	2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
6	Identify, recognize, and solve word problems with dollar bills, quarters, dimes, nickels, and pennies using the \$ and ¢ symbols appropriately.	2.MD.8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i>
7	Add and subtract within 100 to solve 1- or 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.
8	Add and subtract fluently within 20 using mental strategies, such as decomposing and composing numbers using the benchmark of ten.	2.OA.2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Repeated Standards

SLO #7 is a benchmark for 2.OA.1

SLO #8 is a benchmark for 2.OA.2

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.

Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Selected Opportunities for Connection to Mathematical Practices

1. **Make sense of problems and persevere in solving them.**

SLO #2 Explain how (using drawings or objects) strategies based on place value or properties of operations work to solve addition and subtraction problems.

SLO #3 Analyze the relationship among numbers or quantities in addition or subtraction word problems regarding lengths in order to solve.

2. **Reason abstractly and quantitatively.**

SLO #2 Know and flexibly apply properties of operations as they relate to addition and subtraction problems.

SLO #3 Use quantitative reasoning to create a coherent representation of addition and subtraction word problems regarding length.

SLO #8 Make sense and understand quantities and their relationships when adding, subtracting, decomposing, and composing numbers within 20.

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

4. **Model with mathematics.**

SLO #2 Use drawings and diagrams to help explain strategies related to addition and subtraction.

SLO #3 Apply previously learned addition and subtraction skills to solve word problems involving lengths and having unknown quantities represented by symbols.

5. **Use appropriate tools strategically.**

6. Attend to precision.

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

SLO #2 Look for and discern patterns relating to addition and subtraction.

8. Look for and express regularity in repeated reasoning.

Greater Brunswick Charter School Curriculum

Grade level: 2		Subject: Math			Unit #: 4		
Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
1	Pennies, Nickels, and Dimes	6	Count to find the value of pennies, nickels, and dimes	<i>When have you counted coins?</i>	<i>Utilize Counting Coins with Diego Dog for the Technology center</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready • <i>Reteach Master and Extend Master</i> 	MyMath p. 483-488 IXL Pennies, Nickels, and Dimes Counting Pennies, Nickels, and Dimes Activity Sheet Game – Starfish Theater: Pennies, Nickels, and Dimes
2	Quarters	6	Count to find the value of coins	<i>What is the value of a quarter?</i> <i>How do you count quarters?</i>	<i>Suggestion: Read trade book, such as “26 Letters and 99 Cents” by: Tana Hoban, to prepare students for the lesson</i> Formative Assessment: <i>Ask students to show 50 cents using two different combinations of coins. Have students show and explain their combinations to a friend before sharing with the class.</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready ** Mathwire - Site for Literature Connections and Activities	MyMath p.489-494 Pennies, Nickels, Dimes, and Quarters Counting Activity Sheet IXL Online Activity - Names and Values of All Coins
3	Count Coins	6	Skip count and count on to determine the value of a group of coins	<i>How do you count a group of coins?</i>	Exit Ticket <i>As students line up, ask the value of coin combinations. How much are 2 nickels and 2 pennies worth? Repeat using different collections of coins for each student.</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p.495-500

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4	Checking Progress		Review Lessons 1-3		Check My Progress	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p.501-502 Assessment Masters p. 191 K5 Learning Actiivty Sheets - Counting Pennies, Nickels, Dimes, and Quarters up to 10 coins
5	Problem Solving: Act It Out	2,6,7	Use the act it out strategy to solve problems	<i>How does the act it out strategy help you visualize the problem?</i>		<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p.503-508 Shopping Cards – What coins make up the value of each item?
6	Dollars	6	Use coins to make a dollar	<i>What coins can be used to make a dollar?</i> <i>What do you notice about a dollar bill?</i>	Suggestion Intro Activity: Read a trade book such as: <i>The Mon\$ter Money Book</i> by Loreen Leedy, to prepare students for the lesson	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p. 509-514 Reteach Master p.75 Enrich Master p. 67 Fact Dash Game
7	Review		Money		<i>Utilize the Learning Activity from Connect Ed "How Many Pennies" song to review.</i>	<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	MyMath p. 515-518
8	Assessment		Money			<ul style="list-style-type: none"> • Assessment 	MyMath Summative Assessment

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					Whole Group	Small Group / Stations	
9	Time to the Hour	5	Tell and write time to the nearest hour	<i>How do you read and write time to the nearest hour?</i>	Suggestion: See and Show... Discuss the difference between analog and digital clocks	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p. 593-598 Lesson Animation: Time to the Hour Game: Scrambled Egg City: Time to the Hour K5 Activity Sheets Time - Whole Hour ** Time Worksheet Generator
10	Time to the Half Hour	5	Tell and write time to the nearest half hour	<i>How do you read time to the nearest half hour?</i>	Suggestion: Read the trade book "It's About Time" by Stuart J. Murphy to prepare students for the lesson.	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p.599-604 See worksheet generator from previous lesson You Tube Video Time - Hour and Half Hour
11	Problem Solving: Find a Pattern	2,5,7	Find a pattern to solve problems	<i>How can you use patterns to solve problems?</i>	<i>Review the previous strategies as well: Act it Out and Draw a Picture</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p. 605-610
12	Checking Progress	5	Review Concepts from Lessons 1-3		<i>Have students practice drawing clocks and placing hands to the hour and half hour settings.</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p.611-612 Check My Progress – Assessment Master p. 242
13					<i>Have students</i>		

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Day	Topic	SLO	Learning Objectives	Essential Questions	Suggested Student Activities		Possible Resources
					Whole Group	Small Group / Stations	
14	Time to the Quarter Hour (Take 2 Days)	5	Tell time to the quarter hour	<i>How can you read time to the quarter hour?</i>	<i>demonstrate manipulating the hour and minute hands on individual clocks.</i> <i>Review to the hour and half hour</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p. 613-618 You-Tube - Quarter Past Quarter Past and Quarter Til Activity Sheet Quarter Hour Activity Sheet
15	Time to Five-Minute Intervals	5	Tell and write time to the nearest five minutes	<i>How can skip counting by fives relate to telling time?</i>	<i>Exit Ticket: Line Up Using a demonstration clock, put a time such as 5:55 and have the student tell you the time.</i>	<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready Game: Scrambled Egg City: Time to Five Minutes	MyMath p.619-6:24 Adapted Mind Website – Students can practice and review previous skills Utilize worksheet generator from previous lesson
16	A.M. and P.M.	5	Use A.M. and P.M. when telling and writing time	<i>Go to School...AM or PM</i> <i>Brush your Teeth...AM or PM</i> <i>Eat Dinner...AM or PM</i>		<ul style="list-style-type: none"> • Lesson & Guided Practice • Independent Practice • Intervention/Enrichment • i-Ready 	MyMath p. 625-630 Online Activity: AM and PM
17	Review	2,5,7	Time			<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	MyMath p. 631-634 Math Learning Center: Time - Supplemental for Chapter Time: Supplemental Chapter Activities
18	Assessment					<ul style="list-style-type: none"> • Assessment 	MyMath Summative Assessment

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					Whole Group	Small Group / Stations	
19 Review		1	<i>For days 19-22, review of SLO's that were already covered in previous units</i>			<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	
20 Review		3				<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	
21 Review		4				<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	
22 Review		8				<ul style="list-style-type: none"> • Independent Practice • Intervention/Enrichment as needed for strugglers • i-Ready 	

Word Wall Candidates

Cent
dollar
minute hand
quarter past

dime
dollar sign (\$)
minute
quarter 'til

nickel
analog clock
half-hour
A.M.

penny
hour hand
half-past
P.M.

quarter
digital clock
quarter hour

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Authentic Application

Your Goal: Saving Up

Your Role: Go online or look in catalogs or newspaper ads for prices of items.

Your Audience: Your classmates

The Situation:

- Look for real life prices of items: online, newspaper ads, catalogs?
- Find something they would like to have such as a new bookbag, or lunch box, pencil case, Barbie, etc...
- Over the next few weeks they have to figure out how much they would need to save (coins and dollars)
- After approx. 10 days, see how much money they have to buy the item they chose

The Final Product: You must draw, label, and create:

- Student will illustrate and explain if they have enough money to buy their item
- Student will show either how much more money they will need to purchase their item or how much money they will get back if they have enough to buy it
- Solve, illustrate, and explain their work

Success Criteria: To be successful, you must provide, at the end of the project:

- Illustration, Number Sentences, and detailed explanation of work.