Unit 2 Reveal Grade 3

Content Area: **Math**
Course(s): **Language Arts, Art**
Time Period: **October**
Length: **3 weeks**
Status: **Published**

Unit Overview

UNIT 2 PLANNER

Use Place Value to Fluently Add and Subtract within 1,000

PACING: 18 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	IgniTe! Penny Estimation	Students use strategies to estimate the number of pennies that will fit in a rectangular region.				
						Math Terms
2-1	Represent 4-Digit Numbers	Students represent 4-digit numbers in expanded form, word form, and standard form using an understanding of place value.	Students describe 4-digit numbers using place value.	Students identify and discuss the emotions experienced during math learning.	2-1	expanded form standard form word form
2-2	Round Multi-Digit Numbers	Students round numbers to the nearest 10 or nearest 100.	Students will use the superlative *nearest* to explain rounding numbers.	Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.	2-2	round
Math Probe	Rounding Numbers	Gather data on students' understandings of rounding to the nearest 10 and nearest 100.				
2-3	Estimate Sums and Differences	Students use compatible numbers to estimate a sum or difference.	Students make numerical estimations using *about*.	Students recognize and work to understand the emotions of others and practice empathetic responses.	2-3	estimate compatible number
2-4	Use Addition Properties to Add	Students apply the properties of addition when adding two or more addends.	Students justify multiple ways to solve an addition problem using *and the sum will be the same*.	Students employ techniques that can be used to help maintain focus and manage reactions to potentially frustrating situations.	2-4	addend
2-5	Addition Patterns	Students identify addition patterns and use the patterns to help determine sums of 3-digit numbers and check their accuracy.	Students read conditional sentences with *when* that express patterns.	Students develop and execute a plan, including selecting tools for mathematical problem solving.	2-5	even number odd number
2-6	Use Partial Sums to Add	Students use partial sums to add 3-digit numbers.	Students use *can* to explain the steps of an addition strategy.	Students recognize personal strengths through thoughtful self-reflection.	2-6	decompose partial sum
2-7	Decompose to Subtract	Students decompose one number in different ways to subtract.	Students compare ways to decompose a number using terms such as *one way* and *another*.	Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions.	2-7	decompose
2-8	Adjust Numbers to Add or Subtract	Students adjust numbers to help them add or subtract.	Students express an opinion with support using language such as *I think* and *because*.	Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.	2-8	difference sum
2-9	Use Addition to Subtract	Students use related addition equations to find the difference.	Students describe a bar diagram using precise measurements for distance.	Students recognize and work to understand the emotions of others and practice empathetic responses.	2-9	bar diagram
2-10	Fluently Add within 1,000	Students explain different strategies to add 3-digit numbers.	Students use the transitional word *then* to articulate a strategy with more than one step.	Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.	2-10	partial sum
2-11	Fluently Subtract within 1,000	Students explain different strategies to subtract 3-digit numbers.	Students use command verbs to explain the steps of a strategy.	Students set a focused mathematical goal and make a plan for achieving that goal.	2-11	decompose
2-12	Solve Two-Step Problems Involving Addition and Subtraction	Students write and solve equations to represent a two-step problem. Students use letters for the unknowns.	Students describe the amount they need to find in a word problem using the verb *need*.	Students reflect on and describe the logic and reasoning used to make a mathematical decision or conclusion.	2-12	bar diagram unknown
Unit Review						
Fluency Practice						
Performance Task						
Unit Assessment						

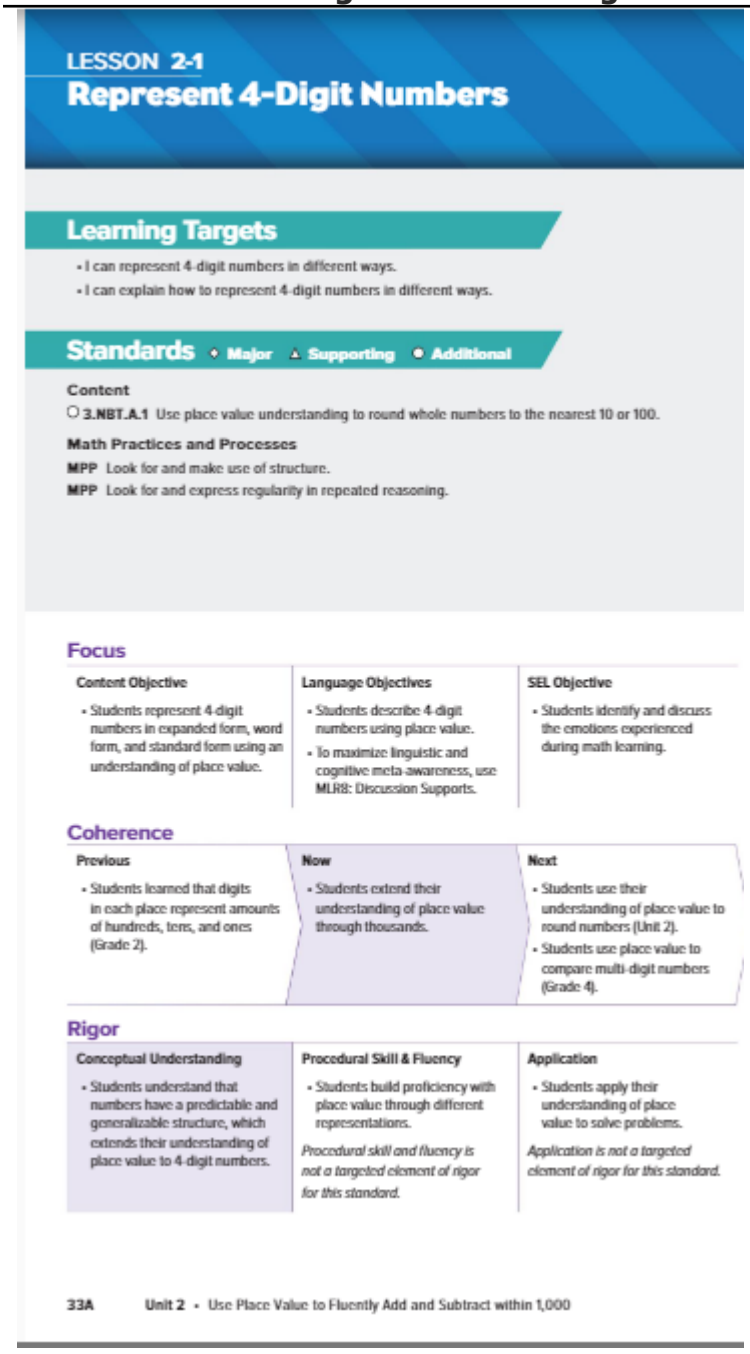
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 2-1

Represent 4-Digit Numbers

Learning Targets

- I can represent 4-digit numbers in different ways.
- I can explain how to represent 4-digit numbers in different ways.

Standards ◆ Major ▲ Supporting ○ Additional

Content

○ **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students represent 4-digit numbers in expanded form, word form, and standard form using an understanding of place value.	• Students describe 4-digit numbers using place value. • To maximize linguistic and cognitive meta-awareness, use MLR8: Discussion Supports.	• Students identify and discuss the emotions experienced during math learning.

Coherence

Previous	Now	Next
• Students learned that digits in each place represent amounts of hundreds, tens, and ones (Grade 2).	• Students extend their understanding of place value through thousands.	• Students use their understanding of place value to round numbers (Unit 2). • Students use place value to compare multi-digit numbers (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that numbers have a predictable and generalizable structure, which extends their understanding of place value to 4-digit numbers.	• Students build proficiency with place value through different representations. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of place value to solve problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-2

Round Multi-Digit Numbers

Learning Targets

- I can round numbers to the nearest 10 and 100.
- I can explain how to round numbers to the nearest 10 and 100.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.

Math Practices and Processes

MPP Model with mathematics.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students round numbers to the nearest 10 or nearest 100.	• Students use the superlative *nearest* to explain rounding numbers. • To optimize output, use MLR7: Compare and Connect.	• Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.

Coherence

Previous	Now	Next
• Students gained an understanding of place value of 3-digit numbers (Grade 2).	• Students use their understanding of place value to round 3-digit numbers to the nearest 10 or 100.	• Students use rounded numbers to estimate sums and differences (Unit 2). • Students round multi-digit numbers to any place (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop an understanding of rounding using a number line and place value.	• Students develop proficiency with rounding 3-digit numbers to the nearest 10 or 100. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of rounding numbers to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-3

Estimate Sums and Differences

Learning Targets

- I can use compatible numbers to estimate sums and differences.
- I can explain how to use compatible numbers to estimate sums and differences.

Standards ◆ Major △ Supporting ○ Additional

Content

○ **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Use appropriate tools strategically.

MPP Look for and make use of structure.

Focus

Content Objective

- Students use compatible numbers to estimate a sum or difference.

Language Objectives

- Students make numerical estimations using *about*.
- To cultivate conversation, use MLR3: Critique, Correct, and Clarify.

SEL Objective

- Students recognize and work to understand the emotions of others and practice empathetic responses.

Coherence

Previous

- Students learned how to make a good estimate (Grade 2).
- Students rounded numbers to the nearest 10 and 100 (Unit 2).

Now

- Students use their knowledge of rounding to the nearest 10 and 100 to estimate sums and differences.

Next

- Students break apart numbers to add and subtract 3-digit numbers (Unit 2).
- Students use the standard algorithm to add and subtract multi-digit numbers (Grade 4).

Rigor

Conceptual Understanding

- Students develop an understanding of compatible numbers to estimate sums and differences.

Conceptual understanding is not a targeted element of rigor for this standard.

Procedural Skill & Fluency

- Students build proficiency with estimating sums and differences.

Application

- Students apply an understanding of estimation to solve real-world problems.

Application is not a targeted element of rigor for this standard.

LESSON 2-4

Use Addition Properties to Add

Learning Targets

- I can apply addition properties as strategies to help add more efficiently.
- I can explain how to apply addition properties as strategies to help add more efficiently.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students apply the properties of addition when adding two or more addends.	• Students justify multiple ways to solve an addition problem using *and the sum will be the same.* • To optimize output, use in MLR1: Stronger and Clearer Each Time.	• Students employ techniques that can be used to help maintain focus and manage reactions to potentially frustrating situations.

Coherence

Previous	Now	Next
• Students used place-value understanding and properties of operations to add and subtract (Grade 2).	• Students explore addition properties by grouping addends or changing the order of addends to add more efficiently.	• Students add and subtract 3-digit numbers using strategies based on place value and properties of operations (Unit 2). • Students fluently add multi-digit whole numbers using properties of addition (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build their understanding of addition properties to add multi-digit numbers. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop proficiency with addition strategies by using addition properties to add multi-digit numbers.	• Students apply their understanding of addition properties to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-5

Addition Patterns

Learning Targets

- I can use addition patterns to help find a sum.
- I can explain how to use addition patterns to help find a sum.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **3.OA.D.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify addition patterns and use the patterns to help determine sums of 3-digit numbers and check their accuracy.	• Students read conditional sentences with *when* that express patterns. • To maximize linguistic and cognitive meta-awareness, use MLR2: Collect and Display.	• Students develop and execute a plan, including selecting tools for mathematical problem solving.

Coherence

Previous	Now	Next
• Students identified numbers (1–20) as even or odd and learned the sum of two even addends is always even (Grade 2).	• Students build an understanding of addition patterns and use the patterns to help determine whether a sum is accurate.	• Students add and subtract 3-digit numbers using strategies based on place value and properties of operations (Unit 2). • Students fluently add multi-digit whole numbers using properties of addition (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students strengthen their understanding of addition patterns to solve addition problems efficiently.	• Students build proficiency with solving problems by identifying and using addition patterns. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of addition patterns to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-6

Use Partial Sums to Add

Learning Targets

- I can use horizontal and vertical formats to add partial sums.
- I can explain how to use horizontal and vertical formats to add partial sums.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use partial sums to add 3-digit numbers.	• Students use *can* to explain the steps of an addition strategy. • To cultivate conversation, use MLR7: Compare and Connect.	• Students recognize personal strengths through thoughtful self-reflection.

Coherence

Previous	Now	Next
• Students used partial sums to find the sum of two 2-digit numbers (Grade 2).	• Students use partial sums to determine the sum of two 3-digit numbers.	• Students add two 3-digit numbers by adjusting numbers (Unit 2). • Students use the standard algorithm to add multi-digit numbers (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students deepen their understanding of addition as they use partial sums to add 3-digit numbers. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students gain fluency with addition as they use partial sums to add two 3-digit numbers.	• Students apply their understanding of partial sums to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-7

Decompose to Subtract

Learning Targets

- I can decompose a number in different ways to help subtract.
- I can explain how to decompose a number in different ways to help subtract.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Reason abstractly and quantitatively.

Focus

Content Objective	Language Objectives	SEL Objective
• Students decompose one number in different ways to subtract.	• Students compare ways to decompose a number using terms such as *one way, another.* • To cultivate conversation, use MLR5: Co-Craft Problems.	• Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions.

Coherence

Previous	Now	Next
• Students used strategies to subtract 2-digit numbers (Grade 2). • Students used rounding to estimate differences (Unit 2).	• Students learn how decomposing a number can help find the difference of two 3-digit numbers.	• Students subtract 3-digit numbers by adjusting numbers (Unit 2). • Students use the standard algorithm to subtract multi-digit numbers (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students deepen their understanding of subtraction by decomposing a number to find the difference. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students gain fluency with subtraction as they decompose a number to subtract two 3-digit numbers.	• Students apply their understanding of decomposing to solve real-world subtraction problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-8

Adjust Numbers to Add or Subtract

Learning Targets

- I can adjust numbers to make it easier to add or subtract two 3-digit numbers.
- I can explain how to adjust numbers to make it easier to add or subtract two 3-digit numbers.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Use appropriate tools strategically.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students adjust numbers to help them add or subtract.	• Students express an opinion with support using language such as *I think* and *because*. • To optimize output and cultivate conversation, ELs will participate in MLR4: Information Gap.	• Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

Coherence

Previous	Now	Next
• Students added and subtracted using strategies based on place value (Grade 2). • Students decomposed numbers to help add and subtract (Unit 2).	• Students add or subtract two 3-digit numbers by adjusting the numbers.	• Students fluently add and subtract within 1,000 (Unit 2). • Students add and subtract multi-digit numbers using the standard algorithm (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that adjusting numbers can make it easier to add or subtract. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency with addition and subtraction by using the strategy of adjusting numbers.	• Students apply their understanding of adjusting numbers to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-9

Use Addition to Subtract

Learning Targets

- I can show how addition and subtraction are related.
- I can explain how addition and subtraction are related.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use related addition equations to find the difference.	• Students describe a bar diagram using precise measurements for distance: *miles*. • To support sense-making, use MLR6: Three Reads.	• Students recognize and work to understand the emotions of others and practice empathetic responses.

Coherence

Previous	Now	Next
• Students explored the relationship between addition and subtraction with 2-digit numbers (Grade 2). • Students explored addition patterns (Unit 2).	• Students extend their understanding of the relationship between addition and subtraction to 3-digit numbers.	• Students explore the relationship between multiplication and division (Unit 3). • Students fluently add and subtract multi-digit whole numbers using the standard algorithm (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that they can solve a subtraction equation using a related addition equation. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency rewriting a subtraction equation as a related addition equation.	• Students apply their understanding of the relationship between addition and subtraction to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-10

Fluently Add within 1,000

Learning Targets

- I can use different strategies to add 3-digit numbers.
- I can explain how to use different strategies to add 3-digit numbers.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Make sense of problems and persevere in solving them.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students explain different strategies to add 3-digit numbers.	• Students use the transitional word *then* to articulate a strategy with more than one step. • To optimize output, use MLR5: Co-Craft Problems.	• Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.

Coherence

Previous	Now	Next
• Students used addition strategies to add 2-digit numbers (Grade 2). • Students explored addition strategies to add 3-digit numbers (Unit 2).	• Students fluently add 3-digit numbers by using different addition strategies.	• Students add two 3-digit numbers in two-step word problems (Unit 2). • Students fluently add multi-digit whole numbers using the standard algorithm (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build upon their understanding of addition strategies to decide which strategy is most efficient. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build fluency with 3-digit addition by using different addition strategies.	• Students apply their understanding of addition strategies to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 2-11

Fluently Subtract within 1,000

Learning Targets

- I can use different strategies to subtract two 3-digit numbers.
- I can explain how to use different strategies to subtract two 3-digit numbers.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **3.NBT.A.2** Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Math Practices and Processes

MPP Make sense of problems and persevere in solving them.

MPP Look for and express regularity in repeated reasoning.

Focus

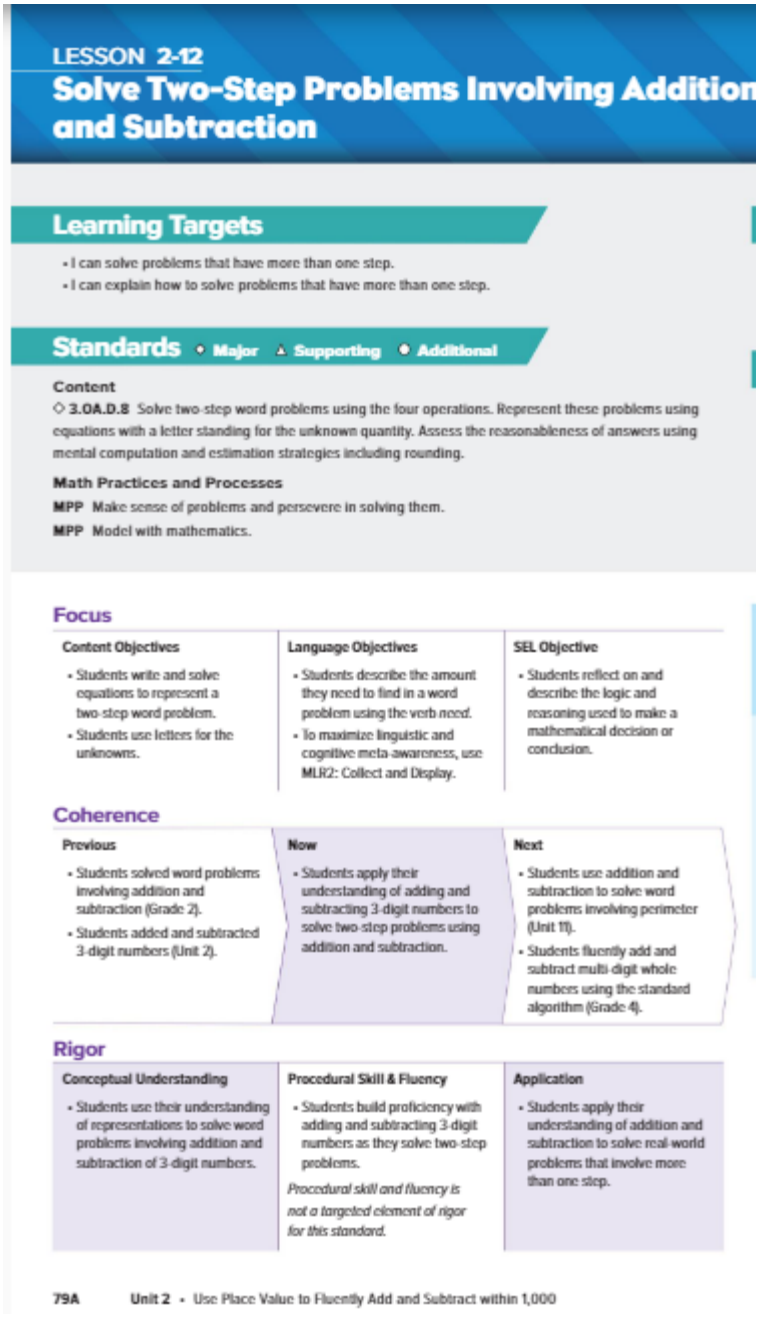
Content Objective	Language Objectives	SEL Objective
• Students explain different strategies to subtract 3-digit numbers.	• Students use command verbs to explain the steps of a strategy. • To support sense-making, use MLR8: Discussion Supports.	• Students set a focused mathematical goal and make a plan for achieving that goal.

Coherence

Previous	Now	Next
• Students used different strategies to subtract 2-digit numbers (Grade 2). • Students used different strategies to subtract 3-digit numbers (Unit 2).	• Students extend their understanding of subtraction strategies to choose the best strategy when subtracting two 3-digit numbers.	• Students fluently add and subtract multi-digit whole numbers using the standard algorithm (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction strategies to subtract two 3-digit numbers. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency in using different strategies to subtract two 3-digit numbers.	• Students apply their understanding of subtraction to solve problems in a real-world context. *Application is not a targeted element of rigor for this standard.*



LESSON 2-12

Solve Two-Step Problems Involving Addition and Subtraction

Learning Targets

- I can solve problems that have more than one step.
- I can explain how to solve problems that have more than one step.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **3.OA.D.8** Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Math Practices and Processes

MPP Make sense of problems and persevere in solving them.

MPP Model with mathematics.

Focus

Content Objectives	Language Objectives	SEL Objective
• Students write and solve equations to represent a two-step word problem. • Students use letters for the unknowns.	• Students describe the amount they need to find in a word problem using the verb *need*. • To maximize linguistic and cognitive meta-awareness, use MLR2: Collect and Display.	• Students reflect on and describe the logic and reasoning used to make a mathematical decision or conclusion.

Coherence

Previous	Now	Next
• Students solved word problems involving addition and subtraction (Grade 2). • Students added and subtracted 3-digit numbers (Unit 2).	• Students apply their understanding of adding and subtracting 3-digit numbers to solve two-step problems using addition and subtraction.	• Students use addition and subtraction to solve word problems involving perimeter (Unit 11). • Students fluently add and subtract multi-digit whole numbers using the standard algorithm (Grade 4).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their understanding of representations to solve word problems involving addition and subtraction of 3-digit numbers.	• Students build proficiency with adding and subtracting 3-digit numbers as they solve two-step problems. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of addition and subtraction to solve real-world problems that involve more than one step.

Integration of Career Readiness, Life Literacies and Key Skills

9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.4.2.CT.2	Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
9.1.2.FP.1	Explain how emotions influence whether a person spends or saves.
9.1.2.FP.3	Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).
9.4.2.DC.3	Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4).
9.1.2.PB.1	Determine various ways to save and places in the local community that help people save and accumulate money over time.
9.1.2.PB.2	Explain why an individual would choose to save money.
9.4.2.DC.6	Identify respectful and responsible ways to communicate in digital environments.
9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
9.4.2.TL.2	Create a document using a word processing application.
9.4.2.TL.5	Describe the difference between real and virtual experiences.
9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
9.4.2.TL.7	Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

Technology and Design Integration

8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
8.1.2.DA.3	Identify and describe patterns in data visualizations.
8.1.2.DA.4	Make predictions based on data using charts or graphs.
8.1.2.AP.4	Break down a task into a sequence of steps.
8.1.2.AP.5	Describe a program's sequence of events, goals, and expected outcomes.
8.2.2.ITH.4	Identify how various tools reduce work and improve daily tasks.

Interdisciplinary Connections

LA.RI.3.1	Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
LA.RI.3.2	Determine the main idea of a text; recount the key details and explain how they support the main idea.
LA.RI.3.3	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
LA.RI.3.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
LA.RI.3.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
LA.RI.3.6	Distinguish their own point of view from that of the author of a text.

LA.RI.3.8	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence) to support specific points the author makes in a text.
LA.RI.3.9	Compare, contrast and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) the most important points and key details presented in two texts on the same topic.
LA.RI.3.10	By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.
LA.W.3.4	With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
LA.SL.3.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
LA.L.3.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:



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Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Reveal Unit assessments

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

Teacher observation

Checklists

Questioning and Discussion

Quizzes

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

End of Unit assessments

Instructional Materials

See above

Standards

MA.3.OA.D	Solve problems involving the four operations, and identify and explain patterns in arithmetic.
MA.3.OA.D.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
MA.3.OA.D.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
MA.3.NBT.A	Use place value understanding and properties of operations to perform multi-digit arithmetic.
MA.3.NBT.A.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
MA.3.NBT.A.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.