Unit 3 Reveal Grade 4

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

Unit Overview

UNIT 3 PLANNER

Addition and Subtraction Strategies and Algorithms

PACING: 13 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	The Greatest Sum or Difference	Create the greatest possible sum or difference given a series of digits.				
						Math Terms
3-1	Estimate Sums or Differences	Students estimate sums and differences involving multi-digit numbers, and use their estimate to determine if their answer is reasonable.	Students express estimated sums and differences using the past tense verb rounded and the superlative adjective nearest.	Students exchange ideas for completing a mathematical task with a peer and reflect on the value of their similarities and differences.	3-1	estimate front-end estimation round
Math Probe	Estimation	Gather data on students' understandings of various estimation strategies for addition.				
3-2	Strategies to Add Multi-Digit Numbers	Students add multi-digit numbers by adjusting numbers or decomposing numbers based on place value.	Students describe how to add multi-digit numbers by using proper subject-verb agreement.	Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.	3-2	decompose partial sums
3-3	Understand an Addition Algorithm	Students use and explain a standard addition algorithm without regrouping.	Students explain the benefit of using a standard addition algorithm by articulating the similarities and differences of addition strategies.	Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.	3-3	algorithm
3-4	Understand an Addition Algorithm Involving Regrouping	Students use and explain a standard addition algorithm with regrouping.	Students use sequence words to explain the steps used to add multi-digit numbers with regrouping.	Students identify personal traits that make them good students, peers, and math learners.	3-4	regroup
3-5	Strategies to Subtract Multi-Digit Numbers	Students subtract multi-digit numbers by adjusting or decomposing numbers based on place value.	Students name strategies for solving subtraction problems and reflect on their use using *can*. For example, "Numbers *can* be subtracted by using..."	Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.	3-5	decompose difference
3-6	Understand a Subtraction Algorithm	Students use and explain a standard subtraction algorithm without regrouping.	Students use sequence words to explain the steps used to subtract multi-digit numbers.	Students set a focused mathematical goal and make a plan for achieving that goal.	3-6	algorithm difference
3-7	Understand a Subtraction Algorithm Involving Regrouping	Students use and explain a standard subtraction algorithm with regrouping.	Students use their knowledge of the prefix *re-* to explain a subtraction algorithm that uses regrouping.	Students recognize and work to understand the emotions of others and practice empathetic responses.	3-7	regroup
3-8	Represent and Solve Multi-Step Problems	Students solve multi-step problems with whole numbers by using representations such as, bar diagrams and equations.	Students identify key terms to solve multi-step problems with whole numbers.	Students break down a situation to identify the problem at hand.	3-8	variable
3-9	Solve Multi-Step Problems Involving Addition and Subtraction	Students solve multi-step problems involving addition and subtraction.	Students describe real-world connections to respond to and resolve word problems.	Students discuss and practice strategies for managing stressful situations.	3-9	multi-step strategies
Fluency Practice Unit Review						
Unit Assessment Performance Task						

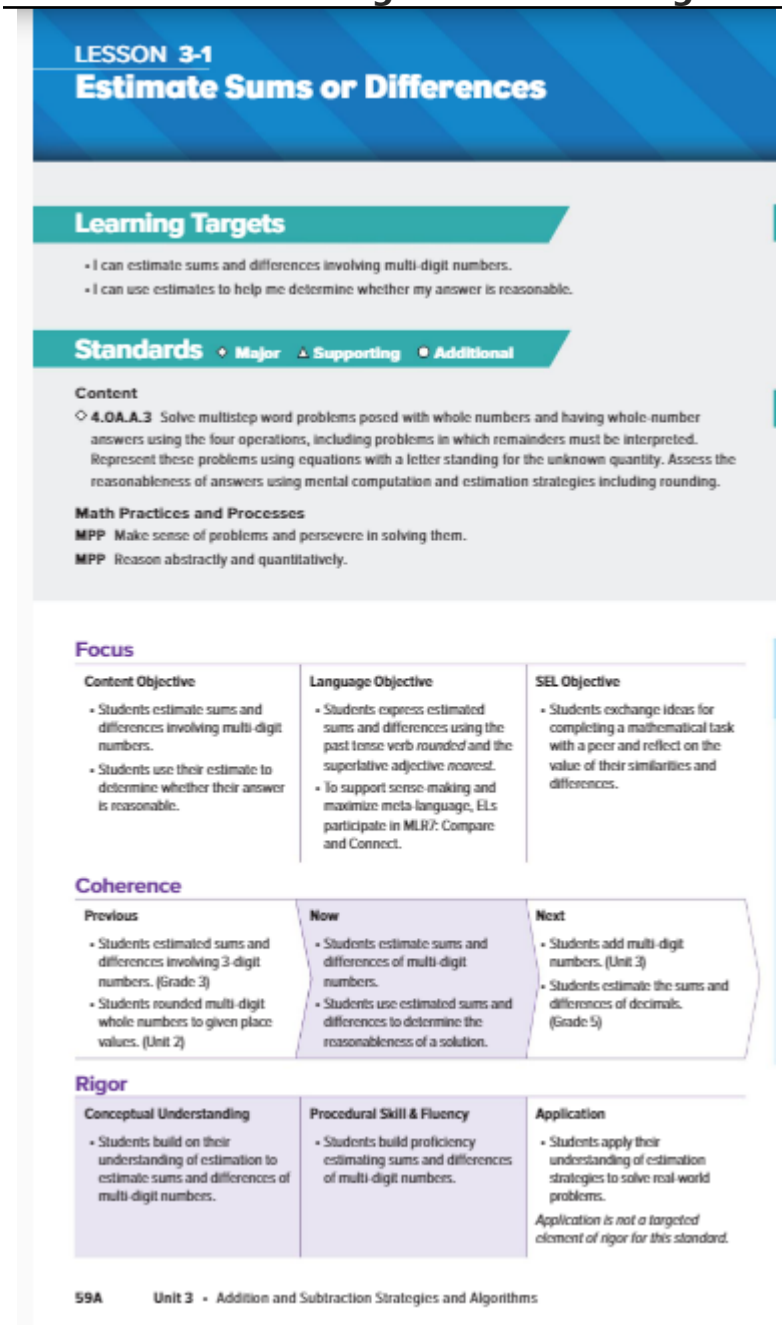
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 3-1

Estimate Sums or Differences

Learning Targets

- I can estimate sums and differences involving multi-digit numbers.
- I can use estimates to help me determine whether my answer is reasonable.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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 Reason abstractly and quantitatively.

Focus

Content Objective	Language Objective	SEL Objective
• Students estimate sums and differences involving multi-digit numbers. • Students use their estimate to determine whether their answer is reasonable.	• Students express estimated sums and differences using the past tense verb *rounded* and the superlative adjective *nearest*. • To support sense-making and maximize meta-language, ELs participate in MLR7: Compare and Connect.	• Students exchange ideas for completing a mathematical task with a peer and reflect on the value of their similarities and differences.

Coherence

Previous	Now	Next
• Students estimated sums and differences involving 3-digit numbers. (Grade 3) • Students rounded multi-digit whole numbers to given place values. (Unit 2)	• Students estimate sums and differences of multi-digit numbers. • Students use estimated sums and differences to determine the reasonableness of a solution.	• Students add multi-digit numbers. (Unit 3) • Students estimate the sums and differences of decimals. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of estimation to estimate sums and differences of multi-digit numbers.	• Students build proficiency estimating sums and differences of multi-digit numbers.	• Students apply their understanding of estimation strategies to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-2

Strategies to Add Multi-Digit Numbers

Learning Targets

- I can add multi-digit numbers by adjusting numbers or decomposing the numbers by place value.
- I can explain how to use strategies to add multi-digit numbers.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objective	Language Objective	SEL Objective
• Students add multi-digit numbers by adjusting numbers or decomposing numbers based on place value. • Students explain how to use strategies to add multi-digit numbers	• Students describe how to add multi-digit numbers by adjusting numbers or using partial sums using proper subject-verb agreement. • To support sense-making and maximize meta-language, ELs participate in MLR2: Collect and Display.	• Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.

Coherence

Previous	Now	Next
• Students added numbers within 1,000 using strategies based on place value. (Grade 3) • Students estimated sums of multi-digit numbers. (Unit 3)	• Students add multi-digit numbers using addition strategies, such as partial sums or adjusting the addends.	• Students use addition and subtraction to solve multi-step problems. (Unit 3) • Students add decimals using strategies based on place value. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students extend their understanding of addition strategies to add multi-digit numbers.	• Students build proficiency in adding multi-digit numbers using multiple addition strategies.	• Students apply strategies for adding multi-digit numbers to solve problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-3

Understand an Addition Algorithm

Learning Targets

- I can use an algorithm to add multi-digit numbers.
- I can explain how an addition algorithm works.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objective	SEL Objective
• Students use an addition algorithm without regrouping. • Students understand and explain an addition algorithm.	• Students explain the benefit of using an addition algorithm by articulating the similarities and differences of addition strategies. • To support sense-making and to maximize meta-language, ELs participate in MLR3: Critique, Correct, and Clarify.	• Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.

Coherence

Previous	Now	Next
• Students added within 1,000 using strategies based on place value. (Grade 3) • Students generalized the structure of place values to one million. (Unit 2)	• Students use an algorithm to efficiently add multi-digit whole numbers.	• Students use addition and subtraction to solve multi-step problems. (Unit 3) • Students use an algorithm to efficiently multiply multi-digit whole numbers. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their understanding of place-value concepts to make sense of an addition algorithm. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency with an addition algorithm.	• Students apply their understanding of an addition algorithm to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-4

Understand an Addition Algorithm Involving Regrouping

Learning Targets

- I can use an algorithm to add multi-digit numbers with regrouping.
- I can explain how an addition algorithm with regrouping works.

Standards ◆ Major △ Supporting ○ Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objective	SEL Objective
• Students use an addition algorithm with regrouping. • Students understand and explain an addition algorithm involving regrouping.	• Students use sequence words to explain the steps used to add multi-digit numbers with regrouping. • To support sense-making and maximize meta-language, ELs participate in MLR1: Stronger and Clearer Each Time.	• Students identify personal traits that make them good students, peers, and math learners.

Coherence

Previous	Now	Next
• Students added within 1,000 using strategies based on place value. (Grade 3) • Students recognized that a digit represents ten times what it represents in the place to its right. (Unit 2)	• Students use an algorithm to add multi-digit whole numbers with regrouping.	• Students use addition and subtraction to solve multi-step problems. (Unit 3) • Students use an algorithm to efficiently multiply multi-digit whole numbers. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of an addition algorithm to add numbers that involve regrouping. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency using an algorithm to add multi-digit numbers with regrouping.	• Students apply their understanding of an addition algorithm to solve real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-5

Strategies to Subtract Multi-Digit Numbers

Learning Targets

- I can subtract multi-digit numbers by adjusting numbers or by decomposing the numbers by place value.
- I can explain how to use strategies to subtract multi-digit numbers.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Construct viable arguments and critique the reasoning of others.

Focus

Content Objective

- Students subtract multi-digit numbers by using strategies such as, adjusting numbers or decomposing numbers based on place value.
- Students explain how to use strategies to subtract multi-digit numbers.

Language Objective

- Students will name strategies for solving subtraction problems and reflect on their use using *can*.
- To support sense-making and maximize meta-language, ELs participate in MLR2: Collect and Display

SEL Objective

- Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.

Coherence

Previous

- Students subtracted within 1,000 using strategies based on place value. (Grade 3)
- Students estimated differences of multi-digit numbers. (Unit 3)

Now

- Students subtract multi-digit numbers using subtraction strategies, such as decomposing one of the numbers by place value or adjusting the numbers.

Next

- Students use addition and subtraction to solve multi-step problems. (Unit 3)
- Students subtract decimals using strategies based on place value. (Grade 5)

Rigor

Conceptual Understanding

- Students build their understanding of subtraction strategies to subtract multi-digit numbers.

Procedural Skill & Fluency

- Students build proficiency in subtracting multi-digit numbers using multiple subtraction strategies.

Application

- Students apply strategies for subtracting multi-digit numbers to solve problems.

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

LESSON 3-6

Understand a Subtraction Algorithm

Learning Targets

- I can use an algorithm to subtract multi-digit numbers.
- I can explain how a subtraction algorithm works.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objective	SEL Objective
• Students use a subtraction algorithm without regrouping to subtract. • Students understand and explain a subtraction algorithm.	• Students use sequence words to explain the steps used to subtract multi-digit numbers. • To support sense-making and maximize meta-language, ELs participate in MLR8: Discussion Supports.	• Students set a focused mathematical goal and make a plan for achieving that goal.

Coherence

Previous	Now	Next
• Students subtracted within 1,000 using strategies based on place value. (Grade 3) • Students generalized the structure of place values to one million. (Unit 2)	• Students use an algorithm to efficiently subtract multi-digit whole numbers.	• Students use addition and subtraction to solve multi-step problems. (Unit 3) • Students use an algorithm to efficiently multiply multi-digit whole numbers. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their understanding of place value concepts to make sense of a subtraction algorithm. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop proficiency with subtracting multi-digit numbers using a subtraction algorithm.	• Students apply their understanding of a subtraction algorithm to solve real world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-7

Understand a Subtraction Algorithm Involving Regrouping

Learning Targets

- I can use an algorithm to subtract multi-digit numbers with regrouping.
- I can explain how a subtraction algorithm with regrouping works.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.NBT.B** Use place value understanding and properties of operations to perform multi-digit arithmetic.

◇ **4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objective	SEL Objective
• Students use a subtraction algorithm with regrouping. • Students understand and explain a subtraction algorithm that uses regrouping.	• Students use their knowledge of the prefix *re-* to understand and explain a subtraction algorithm that uses regrouping. • To support sense-making and maximize meta-language, ELs participate in MLR1: Stronger and Clearer Each Time	• Students recognize and work to understand the emotions of others and practice empathetic responses.

Coherence

Previous	Now	Next
• Students subtracted within 1,000 using strategies based on place value. (Grade 3) • Students recognized that a digit represents ten times what it represents in the place to its right. (Unit 2)	• Students use an algorithm to subtract multi-digit whole numbers with regrouping.	• Students use addition and subtraction to solve multi-step problems. (Unit 3) • Students use an algorithm to efficiently multiply multi-digit whole numbers. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of a subtraction algorithm to include problems that involve regrouping. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students build proficiency using an algorithm to subtract multi-digit numbers with regrouping.	• Students apply their understanding of the subtraction algorithm to solve real world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 3-8

Represent and Solve Multi-Step Problems

Learning Targets

- I can use representations and equations to show the relationship between quantities in a multi-step word problem.
- I can use representations to determine what mathematical operations can be used to solve each step of a multi-step word problem.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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 Reason abstractly and quantitatively.

Focus

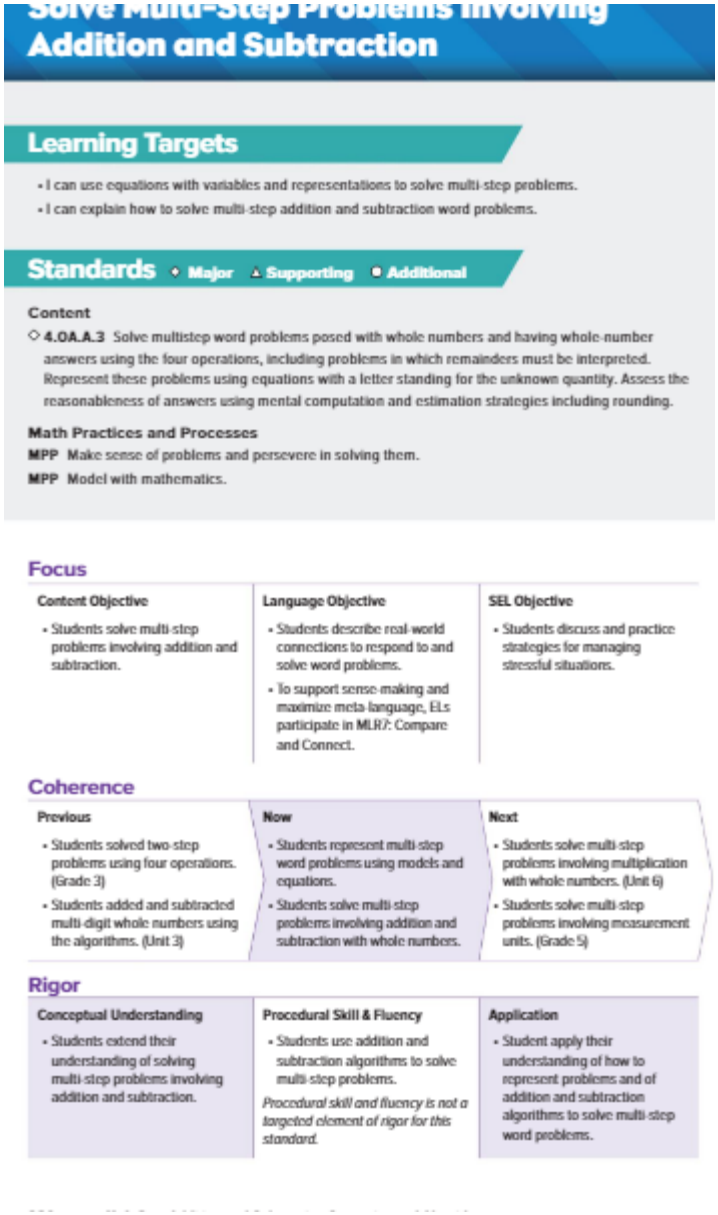
Content Objective	Language Objective	SEL Objective
• Students solve multi-step problems using representations and equations with variables to represent the unknown quantity.	• Students identify key terms to solve multi-step problems with whole numbers. • To support sense-making and maximize meta-language, ELs participate in MLR6: Three Reads.	• Students break down a situation to identify the problem at hand.

Coherence

Previous	Now	Next
• Students solved two-step problems using four operations. (Grade 3) • Students added and subtracted multi-digit whole numbers using an algorithm. (Unit 3)	• Students represent multi-step word problems involving addition and subtraction by using bar diagrams and equations with variables to represent unknown quantities.	• Students solve multi-step problems involving multiplication with whole numbers. (Unit 6) • Students solve multi-step problems involving measurement units. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build understanding of solving multi-step problems by representing them with bar diagrams and equations.	• Students use addition and subtraction algorithms to solve multi-step problems. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of how to represent quantities with bar diagrams and equations to solve multi-step word problems.



Solve Multi-Step Problems Involving Addition and Subtraction

Learning Targets

- I can use equations with variables and representations to solve multi-step problems.
- I can explain how to solve multi-step addition and subtraction word problems.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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 Objective	Language Objective	SEL Objective
• Students solve multi-step problems involving addition and subtraction.	• Students describe real-world connections to respond to and solve word problems. • To support sense-making and maximize meta-language, ELs participate in MLR7: Compare and Connect.	• Students discuss and practice strategies for managing stressful situations.

Coherence

Previous	Now	Next
• Students solved two-step problems using four operations. (Grade 3) • Students added and subtracted multi-digit whole numbers using the algorithms. (Unit 3)	• Students represent multi-step word problems using models and equations. • Students solve multi-step problems involving addition and subtraction with whole numbers.	• Students solve multi-step problems involving multiplication with whole numbers. (Unit 6) • Students solve multi-step problems involving measurement units. (Grade 5)

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students extend their understanding of solving multi-step problems involving addition and subtraction.	• Students use addition and subtraction algorithms to solve multi-step problems. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Student apply their understanding of how to represent problems and of addition and subtraction algorithms to solve multi-step word problems.

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.4	Reading Informational Text
LA.RI.4.1	Refer to details and examples in a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.
LA.RI.4.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
LA.RI.4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
LA.RI.4.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
LA.RI.4.6	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
LA.RI.4.8	Explain how an author uses reasons and evidence to support particular points in a text.
LA.RI.4.9	Integrate and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) information from two texts on the same topic in order to write or speak about the subject knowledgeably.

LA.SL.4	Speaking and Listening
LA.SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
LA.SL.4.2	Paraphrase portions of a text read aloud or information presented in diverse media and formats (e.g., visually, quantitatively, and orally).
LA.SL.4.3	Identify the reasons and evidence a speaker provides to support particular points.
LA.SL.4.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

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.4.OA.A.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. 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.4.NBT.B.4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.