Unit 5 Reveal Grade 1

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

Unit Overview

UNIT 5 PLANNER

Subtraction within 20: Facts and Strategies

PACING: 15 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	Take the Last Counter	Explore basic subtraction facts and use strategies to play a simple game of Nim.				
5-1	Relate Counting to Subtraction	Understand (explain) that subtraction is a more efficient way of determining a difference.	Students use simple past tense verbs to relate counting to subtraction.	Students reflect on and describe the logic and reasoning used to make a mathematical decision or conclusion.	5-1	Math Terms difference subtract total
5-2	Count Back to Subtract	*Count back* on a number line to solve a subtraction equation.	Students use *is* to find differences by counting back on a number line.	Students actively listen without interruption as peers describe how they approached a complex mathematical task.	5-2	number line subtract
5-3	Count On to Subtract	Start with the change number (subtrahend) and *count on* to the total (minuend).	Students use the command form and so to describe finding differences by counting on using a number line.	Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.	5-3	difference number line subtract total
5-4	Make a 10 to Subtract	Use the *make a 10* strategy to solve subtraction equations within 20.	Students use *then* to explain finding differences by making a 10.	Students discuss the value of hearing different viewpoints and approaches to problem solving.	5-4	subtract
5-5	Use Near Doubles to Subtract	Use *near doubles* and *doubles* to solve subtraction equations within 20.	Students use *more than* or *less than* to describe using near doubles and doubles in subtraction.	Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions.	5-5	doubles subtract
5-6	Use Addition to Subtract	Use addition to subtract.	Students describe using addition to subtract using so.	Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.	5-6	subtract unknown addend
Math Probe	Showing Problems with Equations	Show problems with ten-frames, a number line and equations.				
5-7	Use Fact Families to Subtract	Make fact families relating the three numbers to addition and subtraction.	Students describe a known fact to write related facts using simple present tense.	Students practice strategies for persisting at a mathematical task, such as setting a small goal or setting timers for remaining focused.	5-7	fact family fact triangle related facts
5-8	Find an Unknown in a Subtraction Equation	Use different strategies to determine an unknown value in a subtraction equation.	Students use past tense to explain the use of strategies to find an unknown number in a subtraction equation.	Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback.	5-8	subtract unknown
5-9	True Subtraction Equations	Determine whether a subtraction equation is true or false.	Students use simple present tense to express whether a subtraction equation is true or false.	Students set learning goals and initiate work on tasks to accomplish their goals.	5-9	difference equal sign (=) equation
Unit Review **Fluency Practice**						
Unit Assessment **Performance Task**						

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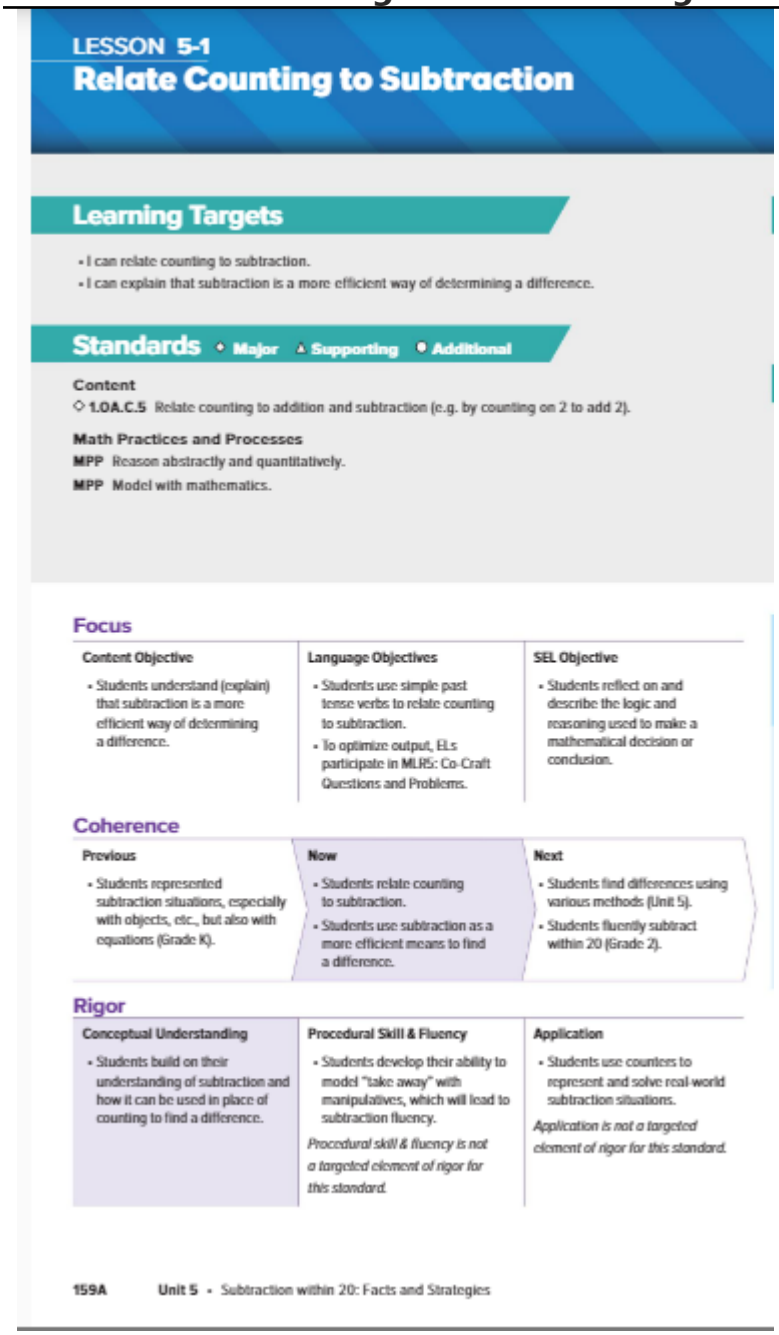
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 5-1

Relate Counting to Subtraction

Learning Targets

- I can relate counting to subtraction.
- I can explain that subtraction is a more efficient way of determining a difference.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.C.5** Relate counting to addition and subtraction (e.g. by counting on 2 to add 2).

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
• Students understand (explain) that subtraction is a more efficient way of determining a difference.	• Students use simple past tense verbs to relate counting to subtraction. • To optimize output, ELs participate in MLR5: Co-Craft Questions and Problems.	• Students reflect on and describe the logic and reasoning used to make a mathematical decision or conclusion.

Coherence

Previous	Now	Next
• Students represented subtraction situations, especially with objects, etc., but also with equations (Grade K).	• Students relate counting to subtraction. • Students use subtraction as a more efficient means to find a difference.	• Students find differences using various methods (Unit 5). • Students fluently subtract within 20 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction and how it can be used in place of counting to find a difference.	• Students develop their ability to model "take away" with manipulatives, which will lead to subtraction fluency. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students use counters to represent and solve real-world subtraction situations. *Application is not a targeted element of rigor for this standard.*

LESSON 5-2

Count Back to Subtract

Learning Targets

- I can use a number line to count back to subtract.
- I can describe how to use a number line to count back to subtract.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students count back on a number line to solve a subtraction equation.	• Students use *is* to find differences by counting back on a number line. • To support sense-making, ELs participate in MLR8: Discussion Supports.	• Students actively listen without interruption as peers describe how they approached a complex mathematical task.

Coherence

Previous	Now	Next
• Students represented subtraction situations, with objects and equations (Grade K). • Students related counting to subtraction (Unit 5).	• Students find differences by counting back on a number line.	• Students find differences using various methods (Unit 5). • Students fluently subtract within 20 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction and number sense by using a number line to find a difference.	• Students develop their ability to find differences by using a number line to count back to subtract.	• Students use number lines to find differences in real-world situations. *Application is not a targeted element of rigor for this standard.*

LESSON 5-3

Count On to Subtract

Learning Targets

- I can use a number line to count on to subtract.
- I can describe how to use a number line to count on to subtract.

Standards ◇ Major ▲ Supporting ○ Additional

Content

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students start with the change number (subtrahend) and count on to the total (minuend).	• Students use the command form and so to describe finding differences by counting on using a number line. • To optimize output, ELs participate in MLR4: Information Gap.	• Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.

Coherence

Previous	Now	Next
• Students represented subtraction situations with objects and equations (Grade K). • Students used number lines to count back to subtract (Unit 5).	• Students find differences by counting on using a number line.	• Students find differences using various methods (Unit 5). • Students fluently subtract within 20 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction and number sense by using a number line to find a difference. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop their ability to find differences by using a number line to count on to subtract.	• Students use number lines to find differences in real-world situations. *Application is not a targeted element of rigor for this standard.*

LESSON 5-4

Make a 10 to Subtract

Learning Targets

- I can make a 10 to subtract.
- I can explain how to make a 10 to subtract.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

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 the *make a 10* strategy to solve subtraction equations within 20.	• Students use *then* to explain finding differences by making a 10. • To support sense-making, ELs participate in MLR2: Collect and Display.	• Students discuss the value of hearing different viewpoints and approaches to problem solving.

Coherence

Previous	Now	Next
• Students decomposed numbers up to 10 (Grade K). • Students used number lines to count back and count on to subtract (Unit 5).	• Students find differences by making a 10.	• Students find differences using various methods (Unit 5). • Students fluently subtract within 20 (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of subtraction and number sense by breaking apart numbers to find a difference.	• Students develop their ability to find differences by making a 10 to subtract.	• Students use number lines to find differences in real-world situations. *Application is not a targeted element of rigor for this standard.*

LESSON 5-5

Use Near Doubles to Subtract

Learning Targets

- I can use near doubles and doubles to subtract.
- I can explain how to use near doubles and doubles to subtract.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

Math Practices and Processes

MPP Model with mathematics.

MPP Reason abstractly and quantitatively.

Focus

Content Objective

- Students use near doubles and doubles to solve subtraction equations within 20.

Language Objectives

- Students describe finding differences by using near doubles and doubles using *more than* or *less than*.
- To cultivate conversation, ELs participate in MLR3: Critique, Correct, and Clarify.

SEL Objective

- Students identify a problem, use creativity to execute problem-solving steps, and identify multiple solutions.

Coherence

Previous

- Students decomposed numbers up to 10 (Grade K).
- Students used ten-frames to make 10 to subtract (Unit 5).

Now

- Students find differences by using near doubles and doubles.

Next

- Students find differences using various methods (Unit 5).
- Students fluently subtract within 20 (Grade 2).

Rigor

Conceptual Understanding

- Students build on their understanding of subtraction and number sense by using doubles and near doubles to find a difference.

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

Procedural Skill & Fluency

- Students develop their ability to find differences by using doubles and near doubles to subtract.

Application

- Students use doubles and near doubles to find differences in real-world situations.

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

LESSON 5-6

Use Addition to Subtract

Learning Targets

- I can use addition to subtract.
- I can explain how to use addition to subtract.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.B.4** Understand subtraction as an unknown-addend problem.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
• Students can use addition to subtract.	• Students describe using addition to subtract using so. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR8: Discussion Supports.	• Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.

Coherence

Previous	Now	Next
• Students decomposed numbers up to 10 (Grade K). • Students used number lines, made a 10, and decomposed numbers to subtract (Unit 5).	• Students use addition to find differences.	• Students use fact families to subtract (Unit 5). • Students subtract with and without regrouping (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of addition and subtraction by using the same tool to see how either an addition or subtraction equation can be used to solve the same problem.	• Students build fluency with using addition facts to solve subtraction problems.	• Students use models to represent and solve real-world subtraction problems. *Application is not a targeted element of rigor for this standard.*

LESSON 5-7

Use Fact Families to Subtract

Learning Targets

- I can use a fact family to subtract.
- I can explain how to build a fact family.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students can make fact families relating the three numbers to addition and subtraction.	• Students describe a known fact to write related facts using simple present tense. • To cultivate conversation, ELs participate in MLR5: Co-Craft Questions and Problems.	• Students practice strategies for persisting at a mathematical task, such as setting a small goal or setting timers for remaining focused.

Coherence

Previous	Now	Next
• Students decomposed numbers up to 10 (Grade K). • Students used number lines, made a 10, decomposed numbers, and used addition to subtract (Unit 5).	• Students use a known fact to write related facts.	• Students use related facts to find an unknown number in a subtraction equation (Unit 5). • Students subtract with and without regrouping (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of how addition and subtraction are related by exploring how three given numbers are related.	• Students develop strategies to use known facts to solve problems with unknown numbers. These strategies lead to fluency with both addition and subtraction. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students use models to represent and solve subtraction problems. *Application is not a targeted element of rigor for this standard.*

LESSON 5-8

Find an Unknown Number in a Subtraction Equation

Learning Targets

- I can find an unknown number in a subtraction equation.
- I can explain how to find an unknown number in a subtraction equation.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.D.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Use appropriate tools strategically.

Focus

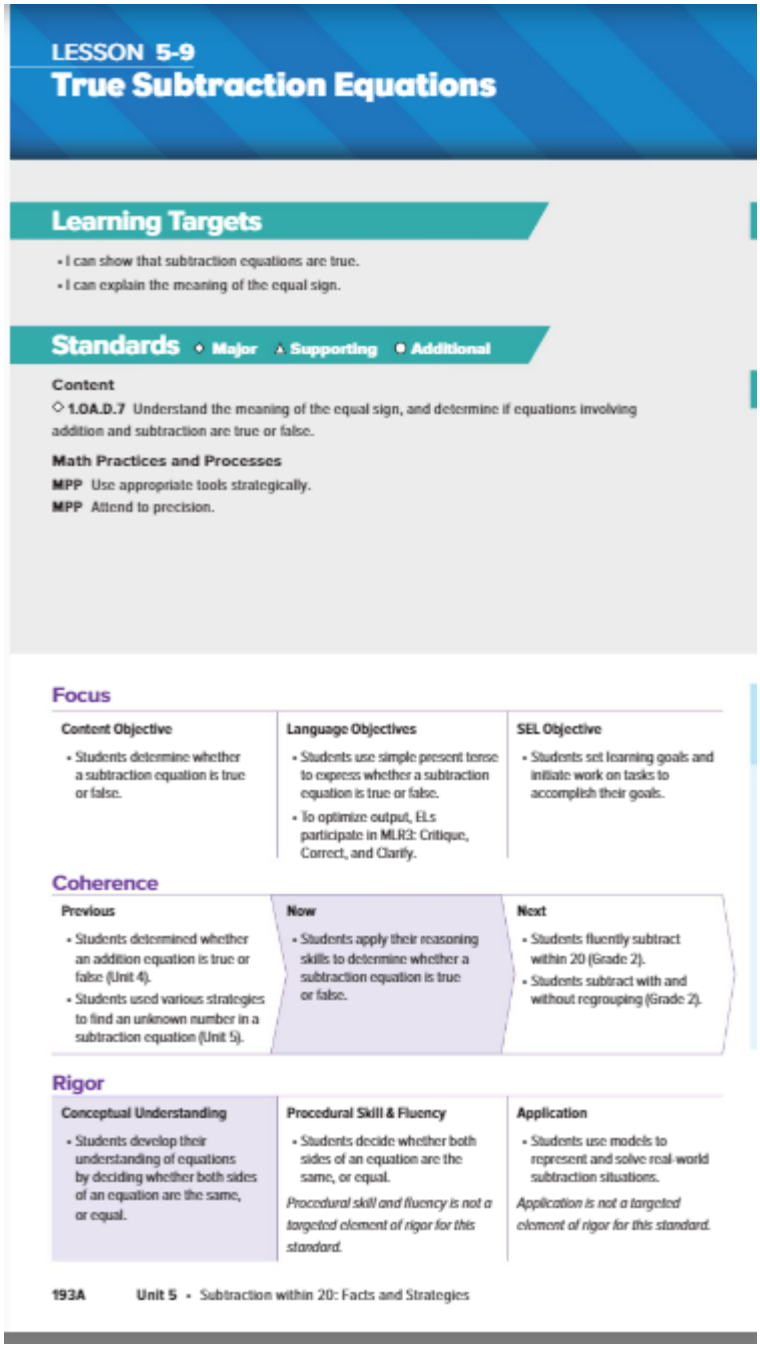
Content Objective	Language Objective	SEL Objective
• Students use different strategies to determine an unknown value in a subtraction equation.	• Students use past tense verbs to explain the use of various strategies to find an unknown number in a subtraction equation. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR8: Discussion Supports.	• Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback.

Coherence

Previous	Now	Next
• Students decomposed numbers up to 10 (Grade K). • Students used number lines, made a 10, decomposed numbers, used addition, and used fact families to subtract (Unit 5).	• Students use various strategies to find an unknown number in a subtraction equation.	• Students determine whether a subtraction equation is true or false (Unit 5). • Students subtract with and without regrouping (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build their understanding of the relationship between addition and subtraction by finding unknown numbers in subtraction equations.	• Students develop methods for solving subtraction problems which will lead to subtraction fluency.	• Students use models to represent and solve real-world subtraction situations. *Application is not a targeted element of rigor for this standard.*



LESSON 5-9

True Subtraction Equations

Learning Targets

- I can show that subtraction equations are true.
- I can explain the meaning of the equal sign.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.D.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

Math Practices and Processes

MPP Use appropriate tools strategically.

MPP Attend to precision.

Focus

Content Objective	Language Objectives	SEL Objective
• Students determine whether a subtraction equation is true or false.	• Students use simple present tense to express whether a subtraction equation is true or false. • To optimize output, ELs participate in MLR3: Critique, Correct, and Clarify.	• Students set learning goals and initiate work on tasks to accomplish their goals.

Coherence

Previous	Now	Next
• Students determined whether an addition equation is true or false (Unit 4). • Students used various strategies to find an unknown number in a subtraction equation (Unit 5).	• Students apply their reasoning skills to determine whether a subtraction equation is true or false.	• Students fluently subtract within 20 (Grade 2). • Students subtract with and without regrouping (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop their understanding of equations by deciding whether both sides of an equation are the same, or equal.	• Students decide whether both sides of an equation are the same, or equal. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students use models to represent and solve real-world subtraction situations. *Application is not a targeted element of rigor for this standard.*

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.1.1	Ask and answer questions about key details in a text.
LA.RI.1.2	Identify the main topic and retell key details of a text.
LA.RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
LA.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
LA.RI.1.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
LA.RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
LA.RI.1.7	Use the illustrations and details in a text to describe its key ideas.

LA.RI.1.8	Identify the reasons an author gives to support points in a text and explain the application of this information with prompting as needed.
LA.RI.1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
LA.RI.1.10	With prompting and support, read informational texts at grade level text complexity or above.
LA.W.1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.
LA.SL.1.1	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
LA.L.1.1	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

1.OA.B.4	Understand subtraction as an unknown-addend problem.
1.OA.C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.C.6	Add and subtract within 20, demonstrating accuracy and efficiency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.
1.OA.D.8	Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.