Unit 6 Reveal Grade 4

Content Area: **Math**
Course(s): **Math**
Time Period: **January**
Length: **2 weeks**
Status: **Published**

Unit Overview

UNIT 6 PLANNER

Multiplication Strategies with Multi-Digit Numbers

PACING: 14 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	IGNITE! Area Puzzles	Students find the missing areas in four rectangular puzzles.				
6-1	Multiply by Multiples of 10, 100, or 1,000	Students identify patterns with zeros in products of 1-digit numbers and multiples of 10, 100, and 1,000.	Students explain how to multiply single-digit factors by multiples of 10, 100, and 1,000 using complete sentences.	Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.	6-1	Math Terms Associative Property of Multiplication multiple(s)
6-2	Estimate Products	Students use estimation strategies such as rounding and compatible numbers to estimate products.	Students explain how to estimate products using compatible numbers and rounding using about.	Students set a focused mathematical goal and make a plan for achieving that goal.	6-2	compatible numbers rounding
6-3	Use the Distributive Property to Multiply	Students use array models and the Distributive Property of Multiplication to multiply two 1-digit factors.	Students explain using arrays to find products using the correct verb tenses.	Students recognize and work to understand the emotions of others and practice empathetic responses.	6-3	decompose Distributive Property factor product
6-4	Multiply 2-Digit by 1-Digit Factors	Students use the area model to determine the product of 2-digit and 1-digit factors.	Students use area models to determine the product of a multi-digit and 1-digit factor.	Students discuss and practice strategies for managing stressful situations.	6-4	area model Distributive Property partial products
6-5	Multiply Multi-Digit by 1-Digit Factors	Students use the area model to determine the product of a multi-digit factor and a 1-digit factor.	Students use area models to find products of multi-digit and 1-digit factors using the correct personal pronoun she.	Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.	6-5	area model Distributive Property partial products
6-6	Multiply Two Multiples of 10	Students identify patterns with zeros in products of two multiples of 10.	Students discuss how to find products of two multiples of ten using the term so.	Students discuss the value of hearing different viewpoints and approaches to problem solving.	6-6	Associative Property of Multiplication multiple
6-7	Multiply Two 2-Digit Factors	Students use the area model to determine the product of two 2-digit factors.	Students discuss using area models and partial products to multiply two 2-digit factors, using complex sentence structures.	Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.	6-7	area model Distributive Property partial products
Math Probe	Estimate Products	Gather data on students' understandings of estimating products involving multiplication of multi-digit numbers.				
6-8	Solve Multi-Step Problems Involving Multiplication	Students represent and solve multi-step word problems involving multiplication. Representations include equations with a variable.	Students discuss their understanding of decomposing numbers to solve word problems using the correct present tense verbs.	Students determine the strategies and analyses necessary to make informed decisions when engaging in mathematical practices.	6-8	variable
Unit Review **Fluency Practice**						
Unit Assessment **Performance Task**						

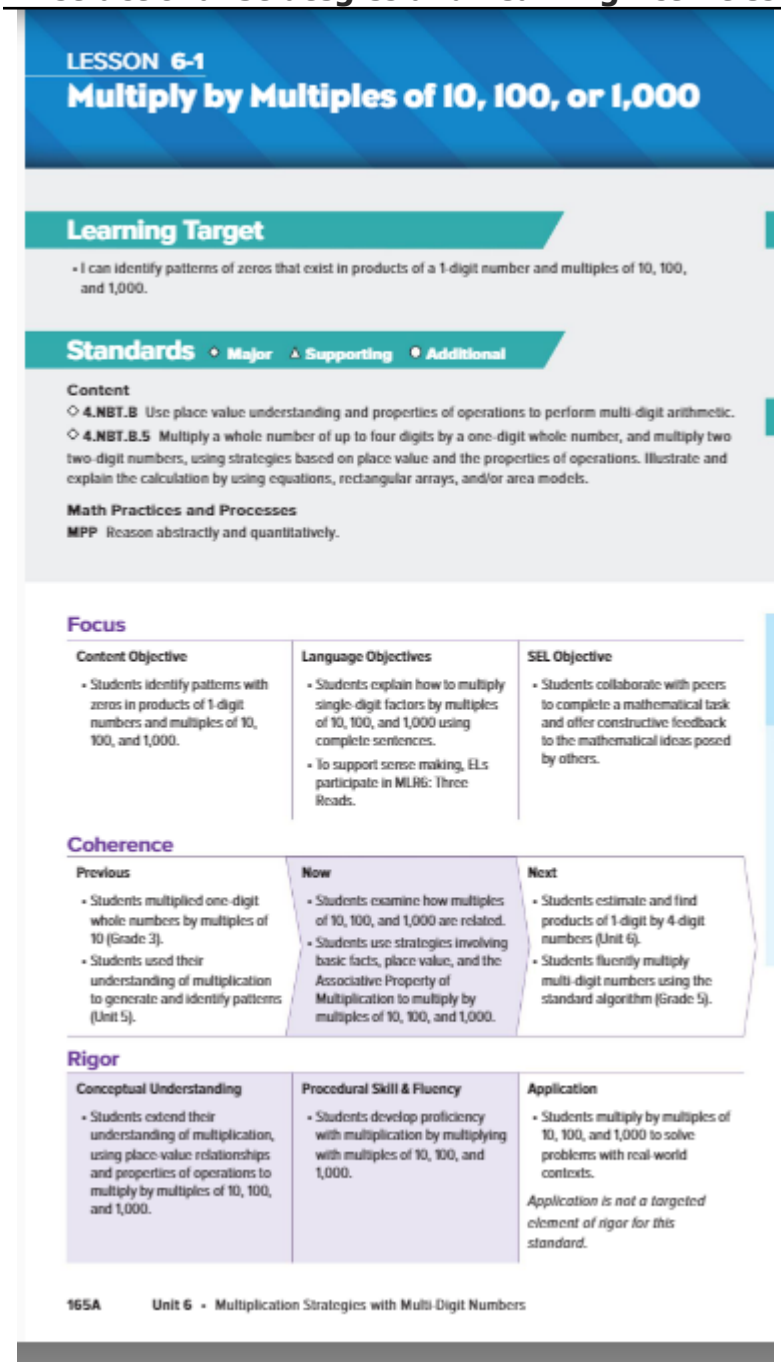
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 6-1

Multiply by Multiples of 10, 100, or 1,000

Learning Target

- I can identify patterns of zeros that exist in products of a 1-digit number and multiples of 10, 100, and 1,000.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify patterns with zeros in products of 1-digit numbers and multiples of 10, 100, and 1,000.	• Students explain how to multiply single-digit factors by multiples of 10, 100, and 1,000 using complete sentences. • To support sense making, ELs participate in MLR6: Three Reads.	• 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 multiplied one-digit whole numbers by multiples of 10 (Grade 3). • Students used their understanding of multiplication to generate and identify patterns (Unit 5).	• Students examine how multiples of 10, 100, and 1,000 are related. • Students use strategies involving basic facts, place value, and the Associative Property of Multiplication to multiply by multiples of 10, 100, and 1,000.	• Students estimate and find products of 1-digit by 4-digit numbers (Unit 6). • Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students extend their understanding of multiplication, using place-value relationships and properties of operations to multiply by multiples of 10, 100, and 1,000.	• Students develop proficiency with multiplication by multiplying with multiples of 10, 100, and 1,000.	• Students multiply by multiples of 10, 100, and 1,000 to solve problems with real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 6-2

Estimate Products

Learning Targets

- I can use rounding and compatible numbers to estimate products.
- I can explain how to estimate products using different estimation strategies.

Standards ◇ Major △ Supporting ○ Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use estimation strategies such as rounding and compatible numbers to estimate products.	• Students explain how to estimate products using compatible numbers and rounding using *about*. • To maximize meta-language, ELs participate in MLR7: Compare and Connect.	• Students set a focused mathematical goal and make a plan for achieving that goal.

Coherence

Previous	Now	Next
• Students used estimation strategies including rounding to find estimated sums and differences (Grade 3). • Students used place value to round numbers to any place (Unit 4).	• Students explain how to estimate products using compatible numbers and rounding.	• Students use estimation to check for the reasonableness of products in multi-step word problems (Unit 6). • Students use estimation to check for the reasonableness of products and quotients (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop an understanding of how to estimate products using different strategies.	• Students build proficiency with estimating products.	• Students use their understanding of estimation to solve problems with real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 6-3

Use the Distributive Property to Multiply

Learning Targets

- I can use the Distributive Property of Multiplication to multiply two numbers.
- I can explain how to use the Distributive Property of Multiplication to find products.

Standards ◆ Major ▲ Supporting ○ Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

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 use array models and the Distributive Property of Multiplication to multiply two 1-digit factors.	• Students explain using arrays to find products using the correct verb tenses. • To optimize output, ELs will 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 used properties of operations to find products (Grade 3). • Students multiplied 1-digit numbers by multiples of 10, 100, and 1,000 (Unit 6).	• Students use the Distributive Property to multiply numbers. • Students use array models to find products.	• Students use partial products to multiply 2-digit by 1-digit factors (Unit 6). • Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students are introduced to the Distributive Property with the use of arrays to build an understanding of how the property works.	• Students build proficiency with multiplication by decomposing factors to find products.	• Students apply their understanding of the Distributive Property to solve problems in real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 6-4

Multiply 2-Digit by 1-Digit Factors

Learning Targets

- I can find partial products to multiply 2-digit by 1-digit factors.
- I can explain how to use partial products to multiply 2-digit by 1-digit factors.

Standards ◇ Major △ Supporting ○ Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Make sense of problems and persevere in solving them.

MPP Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use an area model to determine the product of 2-digit and a 1-digit factors.	• Students use area models to determine the product of a multi-digit and 1-digit factor. • To support sense-making, ELs participate in MLR8: Discussion Supports.	• Students discuss and practice strategies for managing stressful situations.

Coherence

Previous	Now	Next
• Students fluently multiplied within 100 (Grade 3). • Students decomposed factors to multiply (Unit 5).	• Students extend their understanding of multiplication and apply the Distributive Property to solve multiplication problems. • Students find partial products to multiply.	• Students use partial products to multiply two 2-digit factors, and 3-digit and 4-digit factors by 1-digit factors (Unit 6). • Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop understanding of partial products as they use representations and the Distributive Property to find products of 2-digit and 1-digit factors.	• Students build fluency with multiplication facts and using the Distributive Property to multiply.	• Students apply their understanding of partial products by solving real-world problems. *Application is not a targeted element of rigor for this standard.*

LESSON 6-5

Multiply Multi-Digit by 1-Digit Factors

Learning Targets

- I can find partial products to multiply 3-digit and 4-digit factors by 1-digit factors.
- I can explain how to use partial products to multiply 3-digit and 4-digit factors by 1-digit factors.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Model with mathematics.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students use the area model to determine the product of a multi-digit factor and a 1-digit factor.	• Students use area models to find products of multi-digit and 1-digit factors using the correct personal pronoun *she*. • To maximize meta-language, ELs participate in MLR3: Critique, Correct, Clarify.	• Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.

Coherence

Previous	Now	Next
• Students decomposed factors to multiply (Grade 3). • Students used partial products to multiply 2-digit by 1-digit numbers (Unit 6).	• Students extend their understanding of the Distributive Property and area models to find products of 3- and 4-digit factors by 1-digit factors.	• Students use area models and partial products to multiply two 2-digit factors (Unit 6). • Students multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students extend their understanding of place value to decompose numbers and use area models to find partial products.	• Students build fluency using partial products as a strategy to multiply 3- and 4-digit factors by 1-digit factors.	• Students apply their understanding of the Distributive Property to use partial products to solve problems with real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 6-6

Multiply Two Multiples of 10

Learning Target

- I can identify patterns that exist in products of two multiples of 10.

Standards ◇ Major △ Supporting ○ Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify patterns with zeros in products of two multiples of 10.	• Students discuss how to find products of two multiples of ten using the term so. • 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 to multiply (Grade 3). • Students used the Distributive Property to find products (Unit 6).	• Students extend their understanding of place value and properties of operations to find products of two multiples of 10.	• Students use partial products to multiply 2 two-digit factors (Unit 6). • Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students extend their understanding of place value and properties of operations to find products of two multiples of 10.	• Students build proficiency using place value and properties of operations to find products of two multiples of 10.	• Students apply their understanding of place value and properties of operations to solve problems with real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 6-7

Multiply Two 2-Digit Factors

Learning Targets

- I can find partial products to multiply two 2-digit factors.
- I can describe how to use partial products to multiply two 2-digit factors.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

◇ **4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Look for and make use of structure.

Focus

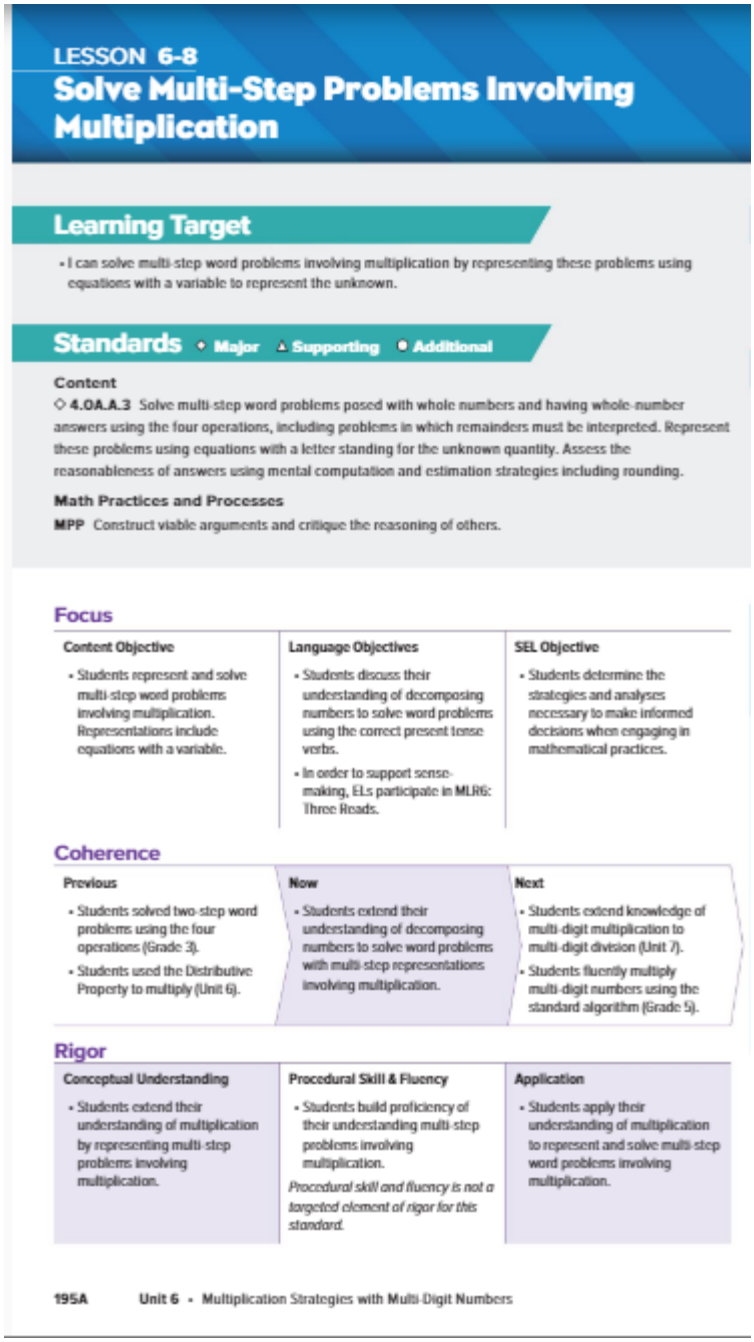
Content Objective	Language Objectives	SEL Objective
• Students use an area model to determine the product of two 2-digit factors.	• Students discuss using area models and partial products to multiply two 2-digit factors, using complex sentence structures. • In order to cultivate conversation, ELs participate in MLR5: Co-Craft Questions and Problems.	• Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

Coherence

Previous	Now	Next
• Students learned how to fluently multiply within 100 (Grade 3). • Students explored how to use area models and partial products to multiply 3- and 4-digit factors by 1-digit factors (Unit 6).	• Students use area models and partial products to multiply two 2-digit factors.	• Students find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors (Unit 7). • Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop an understanding of multiplying two 2-digit factors by using an area model to represent the equation.	• Students build proficiency in multiplying two 2-digit factors by using area models to represent partial products.	• Students apply their understanding of place value and partial products to solve real-world problems. *Application is not a targeted element of rigor for this standard.*



LESSON 6-8

Solve Multi-Step Problems Involving Multiplication

Learning Target

- I can solve multi-step word problems involving multiplication by representing these problems using equations with a variable to represent the unknown.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **4.OA.A.3** Solve multi-step 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 Construct viable arguments and critique the reasoning of others.

Focus

Content Objective

- Students represent and solve multi-step word problems involving multiplication. Representations include equations with a variable.

Language Objectives

- Students discuss their understanding of decomposing numbers to solve word problems using the correct present tense verbs.
- In order to support sense-making, ELs participate in MLR6: Three Reads.

SEL Objective

- Students determine the strategies and analyses necessary to make informed decisions when engaging in mathematical practices.

Coherence

Previous

- Students solved two-step word problems using the four operations (Grade 3).
- Students used the Distributive Property to multiply (Unit 6).

Now

- Students extend their understanding of decomposing numbers to solve word problems with multi-step representations involving multiplication.

Next

- Students extend knowledge of multi-digit multiplication to multi-digit division (Unit 7).
- Students fluently multiply multi-digit numbers using the standard algorithm (Grade 5).

Rigor

Conceptual Understanding

- Students extend their understanding of multiplication by representing multi-step problems involving multiplication.

Procedural Skill & Fluency

- Students build proficiency of their understanding multi-step problems involving multiplication.

Procedural skill and fluency is not a targeted element of rigor for this standard.

Application

- Students apply their understanding of multiplication to represent and solve multi-step word problems involving multiplication.

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Integration of Career Readiness, Life Literacies and Key Skills

PFL.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).
PFL.9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
PFL.9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
PFL.9.1.2.FP.1	Explain how emotions influence whether a person spends or saves.
PFL.9.1.2.FP.3	Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).

PFL.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.
PFL.9.1.2.PB.2	Explain why an individual would choose to save money.
TECH.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).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.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).
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.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).
TECH.9.4.2.DC.6	Identify respectful and responsible ways to communicate in digital environments.
TECH.9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
TECH.9.4.2.TL.2	Create a document using a word processing application.
TECH.9.4.2.TL.5	Describe the difference between real and virtual experiences.
TECH.9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
TECH.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

CS.K-2.8.1.2.AP.4	Break down a task into a sequence of steps.
CS.K-2.8.1.2.AP.5	Describe a program's sequence of events, goals, and expected outcomes.
CS.K-2.8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
CS.K-2.8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
CS.K-2.8.1.2.DA.3	Identify and describe patterns in data visualizations.
CS.K-2.8.1.2.DA.4	Make predictions based on data using charts or graphs.
CS.K-2.8.2.2.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.5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.