Unit 8 Reveal Grade 1

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

Unit Overview

UNIT 8 PLANNER

Meanings of Subtraction

PACING: 12 days

LESSON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener Ignite IGNITE! Make Fifteen Apply problem-solving strategies while practicing addition and subtraction facts.					
8-1 Represent and Solve Take From Problems	Students represent a take from situation with an equation when the difference is unknown.	Students use verbs to describe representing word problems with drawings and equations when the difference is unknown.	Students set learning goals and initiate work on tasks to accomplish their goals.	8-1	Math Terms difference part total unknown word problem
8-2 Represent and Solve More Take From Problems	Students represent a take from situation with an equation when either the change or the total is unknown.	Students use verbs to describe representing word problems with drawings and equations when either the change or the total is unknown.	Students recognize and work to understand the emotions of others and practice empathetic responses.	8-2	difference part total unknown word problem
8-3 Represent and Solve Take Apart Problems	Students represent a take apart situation with an equation when the total is unknown.	Students use *there are* to explain the results of solving subtraction word problems when the total is unknown.	Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.	8-3	difference part, unknown whole word problem
Math Probe Problems and Equations 2 Use concrete materials to show the situation and solve the problem.					
8-4 Represent and Solve More Take Apart Problems	Students represent a take apart situation with an equation when both parts are unknown.	Students use present and past tense verbs to describe solutions to subtraction word problems when both parts are unknown.	Students break down a situation to identify the problem at hand.	8-4	difference part unknown whole word problem
8-5 Solve Problems Involving Subtraction	Students represent a take apart situation with an equation when one part is unknown.	Students describe solving subtraction word problems when one part is unknown using present tense verbs.	Students identify and discuss the emotions experienced during math learning.	8-5	difference part, unknown whole word problem
8-6 Solve More Problems Involving Subtraction	Students represent and solve various subtraction problems.	Students describe solutions to a variety of subtraction word problems when either one part, both parts, or the whole is unknown using *so*.	Students discuss the value of hearing different viewpoints and approaches to problem solving.	8-6	difference part, total unknown, whole word problem
8-7 Solve Problems Involving Addition and Subtraction	Students represent and solve various subtraction and addition problems.	Students use *is* and *are* to describe solutions to addition and subtraction word problems.	Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.	8-7	difference part total unknown whole word problem
Unit Review **Fluency Practice**					
Unit Assessment **Performance Task**					

Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities

LESSON 8-1

Represent and Solve Take From Problems

Learning Targets

- I can take from the total when the difference is unknown.
- I can represent a subtraction problem when the difference is unknown.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
• Students represent a take from situation with an equation when the difference is unknown.	• Students use verbs to describe representing word problems with drawings and equations when the difference is unknown. • To support sense-making, ELs participate in MLR6: Three Reads.	• Students set learning goals and initiate work on tasks to accomplish their goals.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved various addition problems (Unit 7).	• Students apply their understanding of representing word problems with drawings and equations by solving subtraction word problems when the difference is unknown.	• Students represent and solve take from situations with equations when the change or total is unknown (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop conceptual understanding that a subtraction situation may involve taking away one part from a total. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop fluency by modeling and solving subtraction problems. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students write equations to solve real-world problems.

LESSON 8-2

Represent and Solve More Take From Proble

Learning Targets

- I can solve for an unknown number that is taken from the total.
- I can represent a subtraction problem when the change is unknown.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students represent a take from situation with an equation when either the change or the total is unknown.	• Students use verbs to describe representing word problems with drawings and equations when either the change or the total is unknown. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR8: Discussion Supports.	• Students recognize and work to understand the emotions of others and practice empathetic responses.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved take from situations with equations when the difference was unknown (Unit 8).	• Students apply their understanding of representing word problems with drawings and equations by solving subtraction problems when either the change or the total is unknown.	• Students represent and solve take apart situations with equations when the total is unknown (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop conceptual understanding that a subtraction situation may involve finding an unknown number that is being taken away or an unknown total. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students model and solve subtraction problems in which either the change or the total is unknown. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply their knowledge of subtracting when either the change or the total is unknown to solve real-world problems.

LESSON 8-3

Represent and Solve Take Apart Problems

Learning Targets

- I can solve for the total in subtraction problems.
- I can represent subtraction problems when the total is unknown.

Standards ◇ Major ▲ Supporting ○ Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objective	SEL Objective
• Students represent a take apart situation with an equation when the total is unknown.	• Students use *there are* to explain the results of solving subtraction word problems when the total is unknown. • To optimize output, ELs participate in MLR3: Critique, Connect, and Clarify.	• Students use prior knowledge and new understanding of mathematical concepts to complete a task, building stronger self-efficacy.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved take from situations with equations when the change or the total was unknown (Unit 8).	• Students apply their understanding of representing word problems with drawings and equations by solving subtraction word problems when the total is unknown.	• Students represent and solve take apart situations with equations when both parts are unknown (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop understanding that the inverse of adding to is taking apart. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop fluency by modeling and solving take apart problems. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply strategies to solve real-world problems in which the totals are unknown.

LESSON 8-4

Represent and Solve More Take Apart Proble

Learning Targets

- I can solve for both parts in subtraction problems.
- I can represent subtraction problems when both parts are unknown.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Model with mathematics.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
• Students represent a take apart situation with an equation when both parts are unknown.	• Students use present and past tense verbs to describe solutions to subtraction word problems when both parts are unknown. • To support sense-making, ELs participate in MLR8: Discussion Supports.	• Students break down a situation to identify the problem at hand.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved take apart situations with equations when the total was unknown (Unit 8).	• Students apply their understanding of representing word problems with drawings and equations by solving subtraction word problems when both parts are unknown.	• Students represent and solve take apart situations with equations when one part is unknown (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop understanding that a take apart problem with both parts unknown requires finding the possible quantities that the total can be broken into. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop these skills by modeling and solving take apart problems when both parts are unknown. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students solve real-world problems in which both parts are unknown.

LESSON 8-5

Solve Problems Involving Subtraction

Learning Targets

- I can solve for one part in subtraction problems.
- I can explain how to solve for one part in subtraction problems.

Standards ◇ Major ▲ Supporting ○ Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
• Students represent a take apart situation with an equation when one part is unknown.	• Students describe solving subtraction word problems when one part is unknown using present tense verbs. • To support sense-making, ELs participate in MLR6: Three Reads.	• Students identify and discuss the emotions experienced during math learning.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved take apart situations with an equation when both parts were unknown (Unit 8).	• Students apply their understanding of representing word problems with drawings and equations by solving subtraction word problems when one part is unknown.	• Students represent and solve various subtraction problems (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop conceptual understanding that they can take apart a number in order to find an unknown addend. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop fluency by modeling and solving take apart problems. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply strategies to solve real-world problems in which one part is unknown.

LESSON 8-6

Solve More Problems Involving Subtraction

Learning Targets

- I can solve different kinds of subtraction word problems.
- I can make representations to show word problems.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Use appropriate tools strategically.

MPP Make sense of problems and persevere in solving them.

Focus

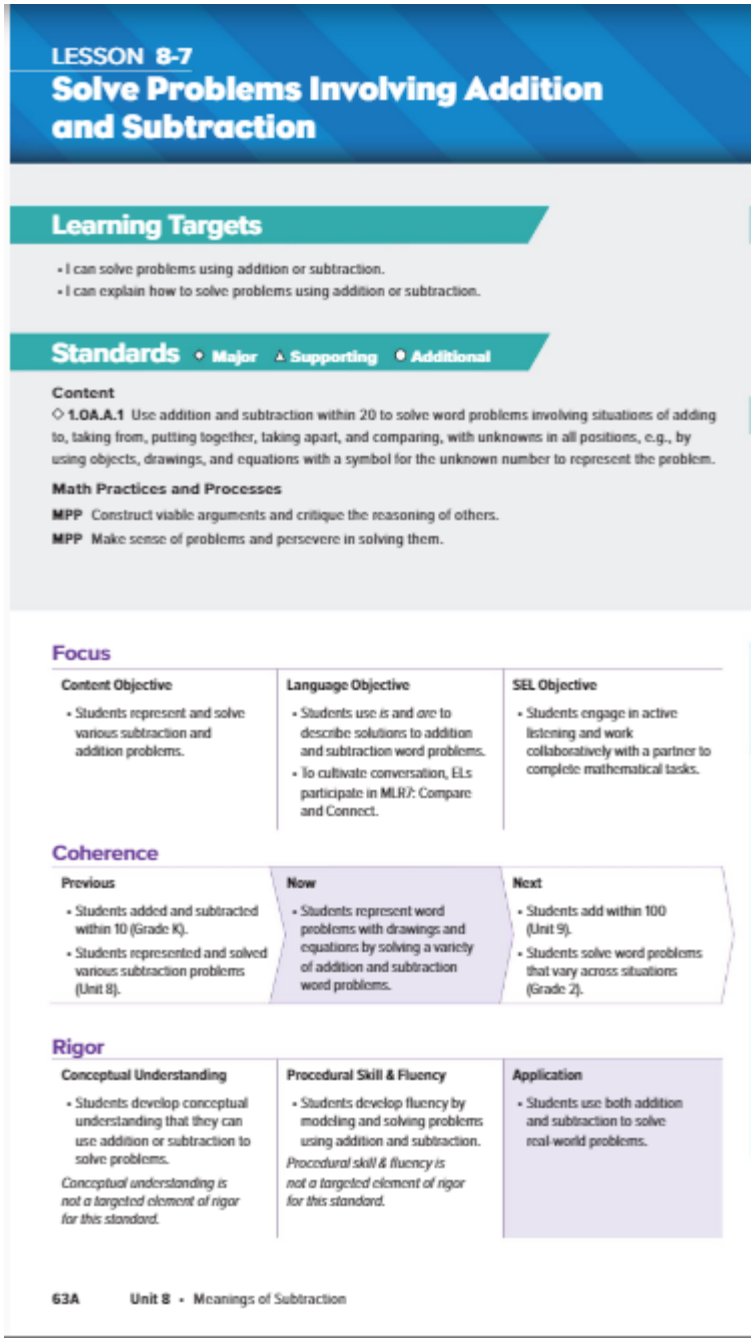
Content Objective	Language Objectives	SEL Objective
• Students represent and solve various subtraction problems.	• Students describe solutions to subtraction word problems when either one part, both parts, or the whole is unknown using so. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR2: Collect and Display.	• Students discuss the value of hearing different viewpoints and approaches to problem solving.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved take apart situations with equations when one part was unknown (Unit 8).	• Students apply their understanding of representing word problems with drawings and equations by solving a variety of subtraction word problems when either one part, both parts, or the whole part is unknown.	• Students represent and solve various addition and subtraction problems (Unit 8). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop conceptual understanding that different situations may call for subtraction. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop fluency by modeling and solving different kinds of subtraction problems. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply subtraction strategies to solve real-world problems with different situations.



LESSON 8-7

Solve Problems Involving Addition and Subtraction

Learning Targets

- I can solve problems using addition or subtraction.
- I can explain how to solve problems using addition or subtraction.

Standards ◆ Major ▲ Supporting ● Additional

Content

◇ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objective	SEL Objective
• Students represent and solve various subtraction and addition problems.	• Students use *is* and *are* to describe solutions to addition and subtraction word problems. • To cultivate conversation, ELs participate in MLR7: Compare and Connect.	• Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.

Coherence

Previous	Now	Next
• Students added and subtracted within 10 (Grade K). • Students represented and solved various subtraction problems (Unit 8).	• Students represent word problems with drawings and equations by solving a variety of addition and subtraction word problems.	• Students add within 100 (Unit 9). • Students solve word problems that vary across situations (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop conceptual understanding that they can use addition or subtraction to solve problems. *Conceptual understanding is not a targeted element of rigor for this standard.*	• Students develop fluency by modeling and solving problems using addition and subtraction. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students use both addition and subtraction to solve real-world problems.

63A Unit 8 • Meanings of Subtraction

Integration of Career Readiness, Life Literacies and Key Skills

PFL.9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
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.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.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
TECH.9.4.2.TL.1	Identify the basic features of a digital tool and explain the purpose of the tool (e.g., 8.2.2.ED.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.GCA.1	Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals (e.g., 1.5.2.C2a, 7.1.NL.IPERS.5, 7.1.NL.IPERS.6).
TECH.9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

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.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-2.8.1.2.NI.1	Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.
CS.K-2.8.1.2.NI.3	Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others.
CS.K-2.8.2.2.EC.1	Identify and compare technology used in different schools, communities, regions, and parts of the world.
CS.K-2.8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
CS.K-2.8.2.2.ED.3	Select and use appropriate tools and materials to build a product using the design process.

Interdisciplinary Connections

LA.RI.1	Reading Informational Text
	Key Ideas and Details
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.
	Craft and Structure
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.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.SL.1.1.B	Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
LA.SL.1.1.C	Ask questions to clear up any confusion about the topics and texts under discussion.
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:

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:

End of 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 Observations

Checklists

Questions and discussions

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 Discussions

Instructional Materials

See Above

MATH.1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.