2 Math Unit 06: Strategies to Fluently Subtract Within 100

Content Area: **Mathematics**
Course(s):
Time Period: **Marking Period 2**
Length: **16 days**
Status: **Published**

Unit Overview

2-Digit Subtraction

In this unit, students build on their understanding of place value to develop strategies to subtract 2-digit numbers. Students subtract both tens and ones. Students work toward regrouping 1 ten as 10 ones. Students choose and explain how to use a strategy to solve a given problem. These strategies are foundational for understanding strategies for greater numbers that will be introduced in Grade 3:

- Decompose a Number: This is a strategy in which one of the numbers is decomposed to make subtraction simpler. To subtract 81-24=?, the smaller number might be decomposed into 20 and 4 to allow for counting back on a number line by tens and ones.
- Adjust numbers: Adjusting numbers involves changing each number by the same amount so that the difference remains the same.
- Use Addition to Subtract: Students write and solve a related addition equation with an unknown addend to find the difference of a subtraction equation.

What Students Are Learning

- Students use the counting on, counting back, make a 10, and use addition strategies to subtract within 20.
- Students learn that a number can be broken apart in many ways as the sum of two numbers.
- The equal sign (=) is a symbol that means the amount on one side of the sign is the same as the amount on the other side.
- Students use addition strategies to solve two-step addition word problems.

Number Routines

- Find the Pattern, Make a Pattern
- Mystery Number
- Which Benchmark Is It Closest To?
- Decompose It
- Which Doesn't Belong
- Notice & Wonder
- Numberless Word Problem

Standards

2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems

	involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
2.OA.B	Add and subtract within 20
2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
2.NBT.B.5	With accuracy and efficiency, add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
2.M.A	Measure and estimate lengths in standard units

Materials

Core Materials:

Reveal Math

6.1 Strategies to Subtract Fluently within 20

6.2 More Strategies to Subtract Fluently within 20

6.3 Represent Subtraction with 2-Digit Numbers

6.4 Represent Subtraction with Regrouping

6.5 Use a Number Line to Subtract

6.6 Decompose Two Addends to Subtract

6.7 Adjust Addends to Subtract

6.8 Relate Addition to Subtraction

6.9 Solve One-Step Problems Using Subtraction

6.10 Solve Two-Step Problems Using Subtraction

Supplemental Materials:

- ST Math
- Happy Numbers
- 3 Act Lessons
- Building Fact Fluency Kit
- Brainingcamp Manipulatives
- Nearpod Lessons
- Brainpop Resources
- Online Resources

Technology

DA	Data & Analysis
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.
8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
8.2.2.ED.3	Select and use appropriate tools and materials to build a product using the design process.

Assessment

Formative Assessment

- Unit Readiness Diagnostics
- Lesson Checks
- Exit Tickets
- Teacher Observation

Summative Assessment

- Unit Assessment Performance Task
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

Accommodations & Modifications

Special Education

Differentiated Instruction			
Accommodate Based on Students' Individual Needs: Strategies			
Time/General	**Processing**	**Comprehension**	**Recall**
• Extra time for assigned tasks • Adjust length of assignment • Timeline with due dates for reports and projects • Communication system between home and	• Extra response time • Have students verbalize steps • Repeat, clarify, or reword directions • Mini-breaks between tasks • Provide a warning	• Precise step-by-step directions • Short manageable tasks • Brief and concrete	• Teacher-made checklist • Use visual graphic organizers • Reference resources to

school • Provide lecture notes/outline	for transitions • Reading partners	directions • Provide immediate feedback • Small group instruction • Emphasize multi-sensory learning	promote independence • Visual and verbal reminders • Graphic organizers
Assistive Technology • Computer/whiteboard • Tape recorder • Spell-checker • Audio-taped books	**Tests/Quizzes/Grading** • Extended time • Study guides • Focused/chunked tests • Read directions aloud	**Behavior/Attention** • Consistent daily structured routine • Simple and clear classroom rules • Frequent feedback	**Organization** • Individual daily planner • Display a written agenda • Note-taking assistance • Color code materials

504

- In class/pull out support with special ed teacher Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks Graphic organizers
- Vocabulary support Mnemonic devices
- Songs/videos to reinforce concepts Limit number of questions
- Scribe Manipulatives Calculators Reteach pages Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

ELL

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support

- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

At-risk of Failure

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

Gifted & Talented

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

Interdisciplinary Connections

ELA:

RI.2.10. Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed.

Science:

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Climate Change:

- Climate Change Example: Students may solve two-step word problems involving a climate change related issue in their school, such as food waste, recycling, reusing and/or reducing the consumption of goods. They may add and subtract within 100 while using drawing or equations to represent the climate change related issue.
- Climate Change Example: Students may add and subtract within 100 to solve word problems about a climate change issue that involves length. To solve these problems, they may use drawings or equations to represent a climate change related issue in their school, such as food waste, recycling, reusing and/or reducing the consumption of goods.

Career Readiness, Life Literacies & Key Skills

9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
9.1.2.CAP.2	Explain why employers are willing to pay individuals to work.
9.4.2.CT	Critical Thinking and Problem-solving
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).

Career Ready Practices

- **Stem in Action :**
- **Stem Career: Aerospace Engineer: Emily talks about her aspirations to be an aerospace engineer.**
- **Emily compares planes: Emily uses subtraction with two digit numbers to find out how much longer the body of an airplane is compared to its wings.**

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.