1 Math Unit 11: Subtraction within 100

Content Area: **Mathematics**
Course(s):
Time Period: **Marking Period 4**
Length: **10 days**
Status: **Published**

Unit Overview

2-Digit Subtraction

In earlier units, students developed strategies to subtract within 20 as they worked toward fluency with subtraction facts. They also used models and base-ten blocks for two-digit numbers to develop place-value understanding. In this unit, students will use various strategies to subtract multiples of 10. These skills enable students to solve a variety of problems and they prepare students for work next year with more difficult subtraction.

Students are familiar with counting on strategies, such as counting on to first make a ten. In this unit, students use models to count back by tens. When students count back, they should be encouraged to use precise language. Students build on the knowledge they gained from previous units as they work through these topics:

- **Subtract Multiples of 10:** Students extend their work with finding ten less to subtracting multiples of 10. They use base-ten blocks to emphasize that when you subtract a multiple of ten, you subtract tens from tens.
- **Subtracting Patterns:** Students should recall from their earlier work with finding ten less that the ones digit does not change when you subtract ten.
- **Equations:** Students build on their work with equations from the previous units to write equations to describe given subtraction stories. They should focus on knowing which number to start from, and what each number and symbol of the equation represents.

What Students Are Learning

- Students use mental math to find 10 less than a number.
- Students use base-ten blocks, number charts, and number lines to subtract multiples of 10.
- Students explain how to subtract multiples of 10.

Number Routines

- Would You Rather
- Which Benchmark Is It Closest To?
- Where Does It Go?
- Notice & Wonder
- Which Doesn't Belong?

Standards

1.NBT.C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without

	having to count; explain the reasoning used.
1.NBT.C.6	Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Materials

Core Materials:

Reveal Math

11.1 Use Mental Math to Find 10 Less

11.2 Represent Subtracting Tens

11.3 Subtract Tens

11.4 Use Addition Subtract Tens

11.5 Explain Subtraction Strategies

Supplemental Materials:

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

Technology

8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
8.1.2.DA.4	Make predictions based on data using charts or graphs.
8.1.2.AP.1	Model daily processes by creating and following algorithms to complete tasks.
8.1.2.AP.2	Model the way programs store and manipulate data by using numbers or other symbols to represent information.
8.1.2.AP.4	Break down a task into a sequence of steps.
8.2.2.ED.2	Collaborate to solve a simple problem, or to illustrate how 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

<table>
<tr><th colspan="4">Differentiated Instruction</th></tr>
<tr><td colspan="4">Accommodate Based on Students' Individual Needs: Strategies</td></tr>
<tr>
<td>Time/General
Extra time for assigned tasks
Adjust length of assignment
Timeline with due dates for reports and projects
Communication system between home and school
Provide lecture notes/outline</td>
<td>Processing
Extra response time
Have students verbalize steps
Repeat, clarify, or reword directions
Mini-breaks between tasks
Provide a warning for transitions
Reading partners</td>
<td>Comprehension
Precise step-by-step directions
Short manageable tasks
Brief and concrete directions
Provide immediate feedback
Small group instruction
Emphasize multi-sensory learning</td>
<td>Recall
Teacher-made checklist
Use visual graphic organizers
Reference resources to promote independence
Visual and verbal reminders
Graphic organizers</td>
</tr>
<tr>
<td>Assistive Technology</td>
<td>Tests/Quizzes/Grading</td>
<td>Behavior/Attention</td>
<td>Organization</td>
</tr>
</table>

• Computer/whiteboard • Tape recorder • Spell-checker • Audio-taped books	• Extended time • Study guides • Focused/chunked tests • Read directions aloud	• Consistent daily structured routine • Simple and clear classroom rules • Frequent feedback	• 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

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.
ETS1.B	Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions, such as climate change, to other people.
2.2.2.PF	Physical Fitness
RI.MF.1.6	With prompting and support, use text features (e.g., diagrams, tables, animations) to describe key ideas.
W.IW.1.2.B	Develop the topic with facts or other information and examples related to the topic.

Career Readiness, Life Literacies & Key Skills

Creativity and Innovation: Brainstorming can create new, innovative ideas.

- **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).

Example: Students will share ideas of multiple strategies and draw models to illustrate their perspective to the solution path they utilize to solve word problems.

Critical Thinking and Problem-Solving: Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.

- **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).

Example: Students will work in small groups and collaborate to identify possible solutions paths to word problems, utilizing the strategies they have learned to solve addition and subtraction operations, such as place value charts, number lines, hundred chart, ten frames, etc., that could best illustrate the solution to the problem.

Digital Citizenship: Individuals should practice safe behaviors when using the Internet.

- **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).

Example: Students will model appropriate use of all digital platforms and share examples of their work that exhibit proper use of various platforms.

Interaction of Technology and Humans: Technology has changed the way people live and work. Various tools can improve daily tasks and quality of life.

- **8.2.2.ITH.3:** Identify how technology impacts or improves life.

Example: Students will track their progress using Reveal Math or other math programs often utilized in class. Students will discuss the pros and cons of using the program with the teacher. Students will use analog and digital clocks.

Career Ready Practices

STEM Career: Meteorologist- Students talk about the work of a meteorologist.

Students learn about the tools to identify patterns to predict weather.

- 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.