2 Math Unit 05: Strategies to Fluently Add Within 100

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

Unit Overview

Strategies to Fluently Add within 100

In this unit, students first review strategies to add within 20. They review *count on*, *make a 10*, *doubles*, and *near doubles*. Students will extend their understanding of these addition concepts to find sums up to 100. These include:

- Regrouping: Students learn how to trade ten ones for one ten.
- Partial sums: Students learn *partial sums addition*, where separate sums are computed for each place-value position of the addends.
- Decomposing: Students add 2-digit numbers by decomposing one or two addends into tens and ones.
- Adjusting addends: Students learn the process of making addends friendly numbers by " adjusting " them. Students learn that applying inverse operations by adding a number to one addend and subtracting the same number from the other addend does not affect the sum.

What Students Are Learning

- Students use models, drawings, and equations to illustrate addition.
- 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

MATH.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.
MATH.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.
MATH.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.
MATH.2.NBT.B.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.

Materials

Core Materials:

Reveal Math

5.1 Strategies to Add Fluently within 20

5.2 More Strategies to Add Fluently within 20

5.3 Represent Addition with 2-Digit Numbers

5.4 Use Properties to Add

5.5 Decompose Two Addends to Add

5.6 Use a Number Line to Add

5.7 Decompose One Addend to Add

5.8 Adjust Addends to Add

5.9 Add More Than Two Numbers

5.10 Solve One- and Two-Step Problems Using Addition

Supplemental Materials:

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

Technology

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.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.
CS.K-2.DA	Data & Analysis

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 • 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	**Processing** • Extra response time • Have students verbalize steps • Repeat, clarify, or reword directions • Mini-breaks between tasks • Provide a warning for transitions	**Comprehension** • Precise step-by-step directions • Short manageable tasks • Brief and concrete directions • Provide	**Recall** • Teacher-made checklist • Use visual graphic organizers • Reference resources to promote independence

notes/outline	• Reading partners	immediate feedback • Small group instruction • Emphasize multi-sensory learning	• 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

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

Career Ready Practices

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    - **Stem in Action : Stem Career: Video game Designer**
    - **Learn about Erik and video game designers.**
    - **Erik designs a video game: Learn how Erik finds the total number of points for making two jumps in a video game.**

- 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.