Unit 2: Fluency with Addition within 10

Unit #:	APSDO-00017526	Duration:	16.0 Day(s)	Date(s):	09-26-2016 to 09-26-2016

Team:
Jodi Kryzanski (Author), Jenessa Blascak, Diane Chrzanowski, Karen Kane, Kelly McCarthy, Mary Labowsky, Elizabeth Cartona, Lisa Fenn, Tammy Schaller, Carolyn Shea, Shanley McClave, Jaclyn Bivona, Amy Press
Grades:
1
Subjects:
Mathematics

Unit Focus

In this unit, students will be working on addition and subtraction facts within 10. They will extend this learning in Unit 4 by adding and subtracting 11-20 with fluency. They will use dominoes, unifix cubes, dice and colored counters to gain an understanding of concepts as well as to increase confidence in math facts. They will play various math games, both hands on and on the computer, to work on skill areas. Students will bring home math facts to practice each week to help build fluency. Literature used in this unit include: The Mission of Addition and The Action of Subtraction. Primary instructional materials for this unit include On Core and Everyday Mathematics.

Stage 1: Desired Results - Key Understandings

Established Goals

Common Core
Mathematics: 1

- Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. *CCSS.MATH.CONTENT.1.MD.C.4*
- Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). *CCSS.MATH.CONTENT.1.OA.C.5*
- Add and subtract within 20,

Transfer

T1 (T20) Compose and decompose numbers to establish relationships, perform operations, and solve problems.
T2 (T50) Based on an understanding of any problem, initiate a plan, execute it and evaluate the reasonableness of the solution.
T3 (T53) Articulate how mathematical concepts relate to one another in the context of a problem or in the theoretical sense.
T4 (T51) Examine alternate methods to accurately and efficiently solve problems.
T5 (T52) Use appropriate tools strategically to deepen understanding of mathematical concepts.

Meaning

Understandings	Essential Questions

demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 4 = 13 3 1 = 10 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). *CCSS.MATH.CONTENT.1.OA.C.6*

- Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2. *CCSS.MATH.CONTENT.1.OA.D.7*
- Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ 3, 6 + 6 = _. *CCSS.MATH.CONTENT.1.OA.D.8*
- Make sense of problems and persevere in solving them. *CCSS.MATH.MP.1*
- Reason abstractly and quantitatively. *CCSS.MATH.MP.2*
- Use appropriate tools strategically. *CCSS.MATH.MP.5*

U1 (U201) The same value can be represented in multiple ways.
U2 (U205) Expressions, equations, inequalities, and functions use symbols to represent quantities, operations, and their relationships.
U3 (U502) Effective problem solvers identify and apply an appropriate model, tool, or strategy.
U4 (U512) Mathematicians use diagrams, symbols, and terms to describe problems or situations
U5 (U540) The choice of a mathematical tool depends upon the information you have and the information you want.

Q1 (Q200) What rule or pattern can help me simplify the expression or solve this problem?
Q2 (Q201) How can I represent this information in symbols/equations/models?
Q3 (Q202) What value(s) can I use/substitute to make this relationship true?
Q4 (Q204) What is the value of this number/ relationship and how can I represent it in different ways?
Q5 (Q503) What strategies/approaches are best for this problem?
Q6 (Q510) What type(s) of problem is this?
Q7 (Q540) What tool(s) is appropriate for use with this model?

Acquisition of Knowledge and Skill

Knowledge

Skills

S1

Use addition and subtraction within 20 (within 10 for this unit) to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions

S2

Solve word problems that call for addition of three whole numbers whose sum is within 20 (within 10 for this unit)

S3

Apply properties of operations (commutative, associative) to add and subtract

S4

Relate counting to addition and subtraction

		S5 Add and subtract within 20 (within 10 for this unit), demonstrating fluency **S6** Determine the unknown whole number in an addition or subtraction equation **S7** Understand the meaning of the equal sign and determine true or false equations **S8** Understand subtraction as an unknown-addend problem