Unit 2b-Work With Addition And Subtraction

Content Area: **Mathematics**
Course(s): **Math 1**
Time Period: **Marking Period 2**
Length: **MP2 Topic 5 5-1 to 5-7**
Status: **Published**

Essential Questions

- How can adding and subtracting help you solve or complete equations?

Big Ideas

- Equivalence: Any number, measure, numerical expression, algebraic expression, or equation can be represented in an infinite number of ways that have the same value
- Operation Meanings and Relationships: There are multiple interpretations of addition, subtraction, multiplication, and division of rational numbers, and each operation is related to other operations.
- Properties: For a given set of numbers there are relationships that are always true, called properties, and these are the rules that govern arithmetic and algebra.
- Variables, Expressions, and Equations: Letters and symbols, called variables, can be used to stand for a number or any number from a particular set of numbers. Some mathematical and real-world situations can be represented using variables, operations, and numbers in expressions and equations.
- Solving Equations and Inequalities: Rules of arithmetic and algebra can be used together with notions of equivalence to transform equations and inequalities so solutions can be found.
- Practices, Processes, and Proficiencies:Mathematics content and processes can be applied to solve problems.

CRLLKS- Career Education

9.2.4a.1 Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.

9.2.4a.2 Identify various life roles and civic and work-related activities in the school, home, and community.

9.2.4a.3 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.

Connection:

Create word problems/story problems that involve different jobs and professions. Use jobs that require mathematical knowledge.

CSDT Technology Connection

8.1.2.DA.3 : Identify and describe patterns in data visualizations.

Enduring Understandings

Operations and Algebraic Thinking

1.OA.D Work with addition and subtraction equations. [M]

1.OA.A1 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.[M]

1.OA.A2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. [M]

1.OA.B3 Apply properties of operations as strategies to add and subtract [M]

1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). [M]

1.OA.C6 Add and subtract within 20, 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).[M]

1.OA.D7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. [M]

1.OA.D8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. [M]

Mathematical Practices Focus

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments and critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.