Unit 1c-Addition Facts to 20

Content Area: **Mathematics**
Course(s): **Math 1**
Time Period: **MP1-2**
Length: **MP1-2 Topic 3 3-1 to 3-10**
Status: **Published**

Essential Questions

- What strategies can you use for adding to 20?

Big Ideas

- Numbers and the Number Line: The set of real numbers is infinite and ordered. Whole numbers, integers, and fractions are real numbers. Each real number can be associated with a unique point on the number line.
- 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.
- Basic Facts and Algorithms: There is more than one algorithm for each of the operations with rational numbers. Some strategies for basic facts and most algorithms for operations with rational numbers, both mental math and paper and pencil, use equivalence to transform calculations into simpler ones.
- Practices, Processes, and Proficiencies:Mathematics content and processes can be applied to solve problems.

CSDT Technology Connection

8.1.2.CS.1 : Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

Enduring Understandings

Operations and Algebraic Thinking

1.OA.C Add and subtract within 20.

1.OA.C5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.C6 Add and subtract within 20, demonstrating accuracy and efficiency 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).

1.OA.B3 Apply properties of operations as strategies to add and subtract. Examples: If is known, then is also known. (Commutative property of addition.) To add the second two numbers can be added to make a ten, so . (Associative property of addition.) (Clarification: Students need not use formal terms for these properties.) [M]

1.OA.A1 Students may investigate how global interconnections occur between human and physical systems across different regions of the world. Students may collect data and consider sources from multiple perspectives to become informed about a climate change issue and identify possible solutions. The data may be used to create addition and subtraction problems

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.