

**SAU 50
Grade 1
Mathematics
Operations and Algebraic Thinking**

Operations: add and subtract within 20; solve problems using addition and subtraction.

Algebraic Thinking: represent problems involving addition and subtraction; working with addition and subtraction equations.

SAU 50 District Competency:

Students will independently use their learning to determine how many by using strategies and communicate their thinking.

Essential Questions

- How can knowing adding and subtracting help me?
- How are addition and subtraction related to each other?

Acquisition

Students will demonstrate the following to meet the standards.

- I can use addition and subtraction within 20 to solve word problems with a symbol for unknowns in all positions, by using objects, drawings, and equations.
- I can solve word problems by adding three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.
- I can use turn-around facts to add and subtract.
- I can choose two numbers that I can easily add to help find the sum when adding more than two numbers.
- I can use related facts to solve problems with missing addends.
- I can count on to add, count back to subtract, and count up to subtract.
- I can fluently add and subtract numbers to 10.
- I can fluently add and subtract numbers to 20 using strategies.
- I can determine if an addition or subtraction equation is true or false.
- I can determine the unknown whole number, in any position, that makes the equation true.

Standards

NH College and Career Ready Standards

Key to Standard Notation:

1.OA.1: 1 (*grade level*) **OA** (*domain: Operations and Algebraic Thinking*) **1** (*number of the standard*)

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1.OA.1: 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, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

1.OA.3: Apply properties of operations as strategies to add and subtract. (commutative property and associative property)

1.OA.4: Understand subtraction as an unknown-addend problem.

Add and subtract within 20.

1.OA.5: Relate counting to addition and subtraction.

1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

Work with addition and subtraction equations.

1.OA.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

[New Hampshire College and Career Ready Standards](#)

References:

National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common Core Standards for Mathematics* (United States, National Governors Association Center for Best Practices, Council of Chief State School Officers). Retrieved August 10, 2016, from

http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf

Math is fun/definitions. (n.d.). Retrieved April 17, 2017, from <http://www.mathisfun.com/definitions>