**Standard(s):**

**MACC.2.NBT.2.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.

**Related Standards:**

**MACC.2.NBT.2.6:** Add up to four two-digit numbers using strategies based on place value and properties of operations.

**MACC.2.NBT.2.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

| Cognitive Complexity: **MACC.2.NBT.2.9:** Level 3: Strategic Thinking & Complex Reasoning |
|---------------------------------|------------------------------------|

**Standard Clarifications/Assessment Limits:** Students will…

- demonstrate their understanding of performing addition and subtraction, and explain the strategy they used and why it works.
- use their knowledge of fluency facts for addition and subtraction to add and subtract one- and two-digit whole numbers.
- identify and use pictorial representations and models in conjunction with problem solving strategies to add and subtract up to three-digit whole numbers within 1,000
- apply place value understanding to add or subtract the same place values and compose or decompose hundreds, tens, and ones appropriately.
- use the properties of operations, such as the Commutative property, and/or the relationship between addition and subtraction to solve problems.

4 The student will be able to:

- Generalize the addition strategies used for up to 4-digit to add larger than 4-digits.

3 The student will be able to:

- Add up to 4-digit numbers and explain the strategy used and why it works.
- Subtract up to 4-digit numbers and explain the strategy used and why it works.

2 The student will be able to:

- Use the properties of operations, such as the Commutative Property, and/or the relationship between addition and subtraction to solve problems.
- Apply place value understanding to add and subtract the same place values.
- Use knowledge of fluency facts to add and subtract two digit numbers.

1 The student will be able to **recognize** the meaning of specific vocabulary, including:

- **sum,** **addend,** **tens,** **ones,** **regroup,** **hundred,** **difference,** **subtract,** **digit**

The student will be able to:

- Fluently add and subtract within 100.
- Use manipulatives and/or pictorial representations to add and subtract up to 3-digit whole numbers with 1,000.