**Progression of Strategies**



(Level 1, Level 2, and Level 3 Counting Strategies taken from the Counting and Cardinality; Operations and Algebraic Thinking Progressions Document)

**Try It!**

How could you solve 8 + 3 using the three levels of strategies?

How could you solve 14 – 5 using the three levels of strategies?

**Kindergarten-**

**K.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).

**K.OA.4** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings and record the answer with a drawing or equation.

**K.NBT.1** Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two three, four, five, six, seven, eight or nine ones.

**K.OA.5** Fluently add and subtract within 5.

**First Grade**

**1.OA.6** 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)
* creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

**Second Grade**

**2.OA.2** Fluently add and subtract within 20 using mental strategies. (See 1.OA.6 for a list of strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers.

**Use place value understanding and properties of operations to add and subtract.**

**2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

**2.NBT.6** Add up to four two-digit numbers using strategies based on place value and properties of operations.

**2.NBT.7** Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.