

## Vertical Progression:

<p><b>TS Gold</b></p>	<p><b>20.</b> Uses number concepts and operations  <b>20b.</b> Quantifies  <b>8.</b> Uses a variety of strategies (counting objects or fingers, counting on, or counting back) to solve problems with more than 10 objects.</p>
<p><b>Kindergarten</b></p>	<p><b>K.NBT.A Work with numbers 11–19 to gain foundations for place value.</b></p> <ul style="list-style-type: none"> <li>○ <b>K.NBT.A.1</b> 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 (e.g., <math>18 = 10 + 8</math>); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</li> </ul>
<p><b>1<sup>st</sup> Grade</b></p>	<p><b>1.NBT.C Use place value understanding and properties of operations to add and subtract.</b></p> <ul style="list-style-type: none"> <li>○ <b>1.NBT.C.4</b> Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, 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 and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.</li> <li>○ <b>1.NBT.C.5</b> Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</li> <li>○ <b>1.NBT.C.6</b> Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), 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 and explain the reasoning used.</li> </ul>
<p><b>2<sup>nd</sup> Grade</b></p>	<p><b>2.NBT.B Use place value understanding and properties of operations to add and subtract.</b></p> <ul style="list-style-type: none"> <li>○ <b>2.NBT.B.5</b> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</li> <li>○ <b>2.NBT.B.6</b> Add up to four two-digit numbers using strategies based on place value and properties of operations.</li> <li>○ <b>2.NBT.B.7</b> 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.</li> <li>○ <b>2.NBT.8</b> Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.</li> <li>○ <b>2.NBT.9</b> Explain why addition and subtraction strategies work, using place value and the properties of operations.</li> </ul>

## Students will demonstrate command of the ELG by:

- Finding 10 more or 10 less than two-digit numbers without counting and explain reasoning used.
- Adding within 100, including adding two-digit and one-digit numbers and adding two-digit numbers and multiples of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Adding two-digit numbers and adding tens and tens, ones and ones and sometimes when necessary, composing a ten.
- Adding and subtracting multiples of ten based on the knowledge of place value.
- Explaining verbally and in writing reasoning used when adding within 100.

## Vocabulary:

- equation
- less
- more
- number sentence
- one-digit number
- ones
- place value
- tens
- two-digit number

## Sample Instructional/Assessment Tasks:

### 1) Standard(s): 1.NBTC.4

**Source:** Adapted from Illustrated Mathematics

**Item Prompt:** Solve the problem and explain your thinking.

$$46 + 20$$

$$58 + 6$$

$$35 + 17$$

**Correct Answers:** 66, 64, 52

## 2) Standard(s): 1.NBTC.5

**Source:** Adapted from Illustrated Mathematics

**Item Prompt:** What is ten more than each of the following numbers?

42

36

78

What is ten less than each of the following numbers?

35

84

63

**Correct answers:** 52, 46, 88, 25, 74, 53

## 3) Standard(s): 1.NBT.C.6

**Source:** Read Tennessee

<http://www.readtennessee.org/sites/www/Uploads/Examples/1.NBT.C.6final.pdf>

**Item Prompt:** Aria hit the ball 80 feet from the tee. Shane hit the ball 60 feet from the tee. How much farther did Aria's ball go? Use models or drawings to help you solve this problem. Explain your thinking.

**Correct answer:** 20 feet. Click on link for a sample of student work.