

### Number Sense and Place Value – Part A

CCS Standards: Number & Operations in Base Ten	Long-Term Target(s)	Short-Term Targets Covered in This Unit	Activities to Practice These Targets
<p><b>2.NBT.1.</b> Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> <li>– 100 can be thought of as a bundle of ten tens — called a “hundred.”</li> <li>– The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</li> </ul>	<p>I can explain what the three digits of a three-digit number represent.</p>	<p>I can represent each digit in a two-digit number using tens and ones.</p> <p>I can show at least two different ways to make a number using tens and ones.</p> <p>I can explain what the two digits of a two-digit number represent.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Tens and Ones</li> <li><input type="checkbox"/> Problems About Tens and Ones</li> <li><input type="checkbox"/> Sticker Problems</li> <li><input type="checkbox"/> Making Numbers with Tens and Ones</li> <li><input type="checkbox"/> Collect 50 Cents</li> <li><input type="checkbox"/> Different Ways to Make...</li> </ul>
<p><b>2.NBT.2.</b> Count within 1000; skip-count by 5s, 10s, and 100s.</p>	<p>I can count within 1000.</p> <p>I can skip count by 5s, 10s and 100s.</p>	<p>I can skip count by 2s, 5s, and 10s to 150.</p> <p>I can use skip counting to solve problems about 2s, 5s, and 10s.</p> <p>I can count a collection of objects by 2s, 5s, and 10s.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Skip Counting on the 100 Chart</li> <li><input type="checkbox"/> How many fingers?</li> <li><input type="checkbox"/> Problems about 2s, 5s, and 10s</li> <li><input type="checkbox"/> Skip Counting Strips</li> <li><input type="checkbox"/> Counting bags</li> <li><input type="checkbox"/> Groups of 2s, 5s, and 10s</li> </ul>
<p><b>2.NBT.3.</b> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>	<p>I can read and write numbers to 1000 using numerals, number names, and expanded form.</p>	<p>I can write a two-digit number in expanded form.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Expanded Form Practice Sheet</li> <li><input type="checkbox"/> Weekly Warm-ups</li> </ul>
<p><b>2.NBT.4.</b> Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>	<p>I can compare three-digit numbers using the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p>	<p>I can compare two-digit numbers using the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p> <p>I can compare groups of tens and ones using the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p> <p>I can compare two-digit numbers based on the meanings of tens and ones.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Guess My Number</li> <li><input type="checkbox"/> Roll, Record, and Compare</li> <li><input type="checkbox"/> Tens and Ones Cards</li> <li><input type="checkbox"/> Finding Equal Amounts</li> </ul>

## **Description of Lessons/Activities:**

- 1. Guess My Number on the 100 Chart:** This game develops number sense and an understanding of greater than and less than, as well as practice with 2-digit numbers to 100.
  - LT: I can count to 100.
- 2. Skip counting on the 100 Chart:** Students shade the numbers on a 100 chart for skip counting by 2s, 5s, and 10s and look for patterns.
  - LT: I can skip count by 2s, 5s, and 10s on a hundreds chart.
- 3. How many fingers?:** The context of counting all of the fingers in the class encourages students to count by fives and/or tens.
  - (no LT posted – discover during class) LT: I can use skip counting to solve a problem about groups of 5 or 10.
- 4. Problems about 2s, 5s, and 10s:** Students solve story problems about things that come in groups (legs, arms, eyes, hands, fingers, toes).
  - LT: I can use skip counting to solve problems about 2s, 5s, and 10s.
- 5. Skip Counting Strips:** Students write their numbers to 150 by twos, fives, and tens. They look for patterns in the counting strips and answer questions about how many twos, fives, or tens are in 150.
  - LT: I can skip count by 2s, 5s, and 10s to 150.
- 6. Counting bags:** Students count collections of objects by twos, fives, and tens. They develop a system for recording their work and discuss whether or not the total amount in the bag changed when they counted by a different number.
  - LT: I can count a collection of objects by 2s, 5s, and 10s to 150.
- 7. Groups of 2s, 5s, and 10s:** Students use connecting cubes to explore what happens when a number is grouped by 2s, 5s, and 10s. They count and chart the number of towers and number of leftovers for each grouping for several different numbers. Class discussion focuses on looking for patterns in the charts.
  - LT: I can count a collection of objects by 2s, 5s, and 10s.
  - LT: I can look for patterns in skip counting.
- 8. Tens and Ones:** After discovering the pattern in the tens chart (that the number “tells” how many tens and how many leftovers), students continue to test and explore other numbers to see if the pattern “always works.”
  - LT: I can explain what the two digits of a two-digit number represent.

**9. Problems About Tens and Ones:** Students work on story problems that involve groups of tens and ones.

- LT: I can represent each digit in a two-digit number using tens and ones.

**10. Collect 50 Cents:** In this game, students roll dice to collect pennies. When they have accumulated 10 pennies, they trade in for a dime. First player to 50 cents wins.

- LT: I can represent each digit in a two-digit number using dimes and pennies.

**11. Sticker Problems:** Students are introduced to the sticker context, in which stickers can be bought in singles or strips of tens. They practice counting and drawing numbers in tens and ones.

- LT: I can represent each digit in a two-digit number using tens and ones.

**12. Making Numbers with Tens and Ones:** Students try to find all of the ways to make a number with tens and ones (46 can be 4 tens and 6 ones, 3 tens and 16 ones, etc.).

- LT: I can show at least two different ways to make a number using tens and ones.

**13. Different Ways to Make...:** Students practice representing two-digit numbers in at least two different combinations of tens and ones.

- LT: I can show at least two different ways to make a number using tens and ones.

**14. Finding Equal Amounts:** Students find and match equivalent amounts of tens and ones. For example, they match “3 tens and 27 ones” with “5 tens and 7 ones.”

- LT: I can compare two-digit numbers based on the meanings of tens and ones.

**15. Roll, Record, and Compare:** Students roll multiples-of-ten and unit dice, record as an equation ( $50+7=57$ ), and compare to see which partner had the larger number ( $57>23$ ).

- LT: I can compare two-digit numbers using the symbols  $>$ ,  $=$ , and  $<$ .
- LT: I can write a two-digit number in expanded form.

**16. Tens and Ones Cards:** Students match and order a set of cards with different amounts of tens and ones (23 ones, 2 tens and 3 ones, 13 ones and 1 ten, 3 tens and 14 ones...).

- LT: I can compare groups of tens and ones using the symbols  $>$ ,  $=$ , and  $<$ .