

Core Content

Cluster Title: Understand place value.
Standard : 3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.
MASTERY Patterns of Reasoning:
Conceptual: Understand that the number in the tens place always has a greater value than the number in the ones place. Understand the meaning of the symbols $>$, $=$, $<$.
Procedural: Write two numbers in expanded form and compare the value of the tens. Use base ten blocks to represent numbers, identify the number that is more or less, and explain reasoning. Identify the number that is greater or less than on paper using appropriate symbols. Write in a journal explaining reasoning for why one number is less than, more than, or equal to another number.
Representational: Draw the correct comparison sign when seeing two two-digit numbers on paper.

Supports for Teachers

Critical Background Knowledge

Conceptual:

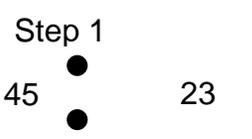
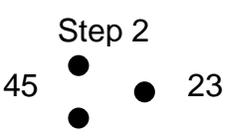
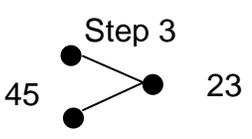
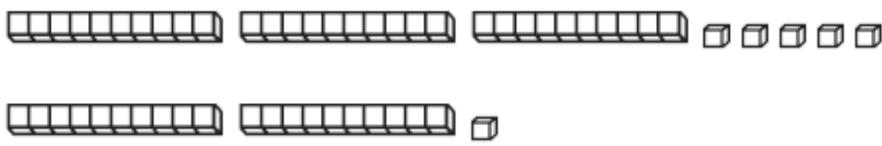
- Understand the meaning of more, less, and equal.
- Understand the meaning of greater than, less than, fewer than.
- Understand how many tens and ones are in a two-digit number.

Procedural:

- Compare numbers 0-10 using correct vocabulary.
- Compare objects using the terminology more, less, greater than, less than, fewer.

Representational:

- Show a set of objects that is greater or less than a given number.
- Circle a number that is greater, or less, depending on instructions.

Academic Vocabulary and Notation	
Compare, Different, Equal, Fewer, Greater Than, Less Than, More	
Instructional Strategies Used	Resources Used
<p>Students will learn that the less than/more than sign can be drawn in the following way: two dots go next to the greater number and one dot is placed next to the smaller number. Students connect the dots</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Step 1</p>  </div> <div style="text-align: center;"> <p>Step 2</p>  </div> <div style="text-align: center;"> <p>Step 3</p>  </div> </div> <p>Students will use base ten blocks, Unifix Cubes or stick pretzels with units of ten ones from a broken pretzel to compare two two-digit numbers. Display the tens and ones in a straight train end-to-end and compare the two trains. Student will then determine which number is greater or less and explain their answer.</p> <div style="text-align: center;">  </div> <p>Students will work in partners. Partner one will make a two-digit number with manipulatives. Partner two will draw a symbol card with $>$, $<$, $=$ and then make a number that is $>$, $<$, $=$ to partner one's number.</p> <p>Student will play a game where partner one draws a number card. Partner two guesses the number and partner one gives them clues using vocabulary such as greater than, fewer than, more than, less than, equal to. The use of vocabulary is key! The round is complete when partner one tells partner two the number is "equal".</p>	<p>Howe, Roger. <i>Three Pillars of First Grade Mathematics</i>. 2012 http://commoncoretools.me/2012/02/08/article-by-roger-howe-three-pillars-of-first-grade-mathematics/</p> <p>Hunderterfeld app</p> <p>Rhythms and Rhymes for Special Times CD- Jack Hartmann -100 days of School Today http://www.jackhartmann.com/rhythms-rhymes-for-special-times-cd/</p>

For this whole-class activity the teacher will display a number card on the board. Every student will display a number that is $<$, $>$, or $=$ to depending on instructions. Students will then explain reasoning to each other.

Each student represents and writes down a number on paper. Students then use two stick pretzels to show the relationship of the numbers using symbols $<$, $>$, $=$.

Students will be the manipulatives to compare numbers. Each student standing is worth 10. Each student on the floor crouching is a 1. Two teams each make a number. Two students lay down and make the correct $<$, $>$, $=$ between the two groups.

Assessment Tasks Used	
<p>Skill-based Task: Students will explain how they know a number is more, less or equal to another given numbers in all forms including concrete, pictorial and abstract.</p>	<p>Problem Task: Student will solve this problem: Joey is planning his birthday party. He buys packages of 10 prizes for his friends. 13 friends are coming to the party. How many prizes will he buy?</p> <p>On Halloween night Meg and Troy count their Halloween candy. Meg has 64 pieces of candy and Troy has 59. Who has less candy? Explain how you know this.</p>