Kentucky Alternate Assessment Instructional Support Documen	t - Math KAS: KY.4.NBT.2	
Standards for Mathematical Practice		
MP.1. Make sense of problems and persevere in solving them.	MP.5. Use appropriate tools strategically.	
MP.2. Reason abstractly and quantitatively.	MP.6. Attend to precision.	
MP.3. Construct viable arguments and critique the reasoning of others.	MP.7. Look for and make use of structure.	
MP.4. Model with mathematics.	MP.8. Look for and express regularity in repeated reasoning.	

Standard	Clarifications
KY.4.NBT.2 Represent and compare multi-digit whole numbers. a. Read and write multi-digit whole numbers using base-ten numerals, number names and expanded form. b. Compare two multi-digit numbers based on meanings of the digit in each place, using >, =, and < symbols to record the results of comparisons. Alternate Assessment Target: Limit full standard to numbers within 1000.	 a. Students write numbers in three different forms. For example, 435, four hundred thirty-five, 400 + 30 + 5. b. Students use different forms of the number to help compare. For example, when students are comparing numbers, they determine that 453 is greater than 435 because the 5 is worth 50 in 453, while the tens place only has 3 worth 30 in 435. So 453 > 435. Alternate Assessment Clarification: See Clarification Above
Connections to Math Practices	Coherence/Foundational Understandings
MP.2 Reason abstractly and quantitatively. (Add or remove context to solve problems*) Use concrete manipulatives to support understanding of expanded form and to compare two- and three-digit numbers.	Pre-requisite Skills Understand place value (1s. 10s. 100s) Understand >, =, < symbols
MP.7 Look for and make use of structure. (Simplify problems by using their structure*) Use concrete manipulatives to explore the structure of numbers.	Coherence KY.4.NBT.2→KY.5.NBT.3
MP.6 Attend to precision.(Communicate precisely.*) Key Vocabulary: Standard form, expanded form, place value, equal to, greater than, less than	Kentucky Academic Standards for Mathematics
Click here to see more about what teachers and students do to build the math practices: Engaging the Math Practices and Question Stems	

^{*}Clarification to the math practices by Robert Kaplinsky.

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Instructional Considerations

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Possible Areas of Difficulties/Misconceptions

When comparing a two-digit number and a three-digit number, students may focus on the number farthest to the left, thinking that if the first digit is greater, the number is greater, without taking into account the place value of the digits. Example: when comparing 93 and 124, students would say 93 is greater because the first digit (9) is greater than the (1)

Suggested Tools/Visual Aids -

- KY Alternate Assessment Resource Guide (General terms pps 6-11; Math terms pps 22-26)
- Ky Alternate Standards Progression
- Number line
- Place value mats
- Base Ten manipulatives