



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework](#)

Standard of Learning (SOL) 2.1c Compare and order whole numbers between 0 and 999.



Student Strengths	Bridging Concepts	Standard of Learning
Students can compare groups of objects that are lined up and tell which is greater than, is less than, and is equal to and tell how much more or less when the difference is 1 or 2.	Students can compare and order groups of objects that are not lined up, and tell which is greater than, is less than, and is equal to up to 110 and then use symbols to express the relationship.	Students can compare and order whole numbers between 0 and 999.

Understanding the Learning Trajectory

Big Ideas:

- According to the [compare](https://www.learningtrajectories.org/) learning trajectory, students compare by counting, compare numbers with place value, use knowledge of number relationships and mental number line as well as benchmarks to determine relative size and position when comparing. (to learn more see compare on <https://www.learningtrajectories.org/>)
- Whole numbers can be compared by analyzing corresponding place values (Charles, p. 14).
- Whole numbers can be compared by their relative place value (Charles, p.14).
- Comparing the magnitude of two digit and three digit numbers uses the understanding that the tens place is greater than the ones place and the hundreds place is greater than the tens place (Common Core Standards Writing Team, 2019).

Formative Assessment:

- [Just in Time Mathematics Quick Check 2.1c PDF](#)
- [Just in Time Mathematics Quick Check 2.1c Desmos](#)

Important Assessment Look Fors:

- Student chooses numbers that are very different from the original number when comparing

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quantities.

- Student uses the place value structure of numbers to compare and order different amounts.
- Student uses symbols to represent greater than, less than, and equal to relationships.

Purposeful Questions:

- What determines whether a number is greater than, less than, or equal to another number?
- How is understanding place value helpful when comparing and ordering numbers?
- What words and symbols are used to compare and order numbers?

Bridging Activity to Support Standard	Instructional Tips
Routine Mystery Number Henrico County Public Schools	<p>Have students record their number as clues are revealed. Most have 4 clues but some have 5. As more clues are revealed students can keep or change their number.</p> <p>Review the vocabulary that students will need to be familiar with in order to be successful with this activity.</p> <p>Have a few students share their thinking and strategy for determining the Mystery Number.</p> <p>Students can make their own Mystery Number clues and share with the class.</p>
Rich Task Marbles (digital) Henrico County Public Schools	<p>Anticipate which materials students may wish to use.</p> <p>Discuss the concepts of more and less. What does it mean to have more marbles than someone else? What does it mean to have less marbles than someone else?</p> <p>Encourage students to show their thinking using multiple models/representations and connecting these representations to each other.</p> <p>Monitor who is using what models/representations and how they are connecting them to symbolic notation, if at all.</p> <p>Look for student's ability to explain their reasoning for their work.</p>
Games Place Value Paths Based on Nimble with Numbers activity	<p>This game requires strategic thinking on where to place numbers.</p> <p>Encourage students to estimate where a number would go on the pathway. They should be able to justify their thinking.</p> <p>You may want to model your metacognitive thinking aloud so they can "see" your strategy when playing.</p>

Other Resources:

- VDOE Mathematics Instructional Plans (MIPS): [2.1c - Three-Digit Place Value \(Word\)](#) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 2 [\(Word\)](#) | [\(PDF\)](#)
- VDOE Instructional Videos for Teachers: [Developing Early Number Sense \(grades K-2\)](#)

Learning Trajectory Resources:

Charles, R. (2005). Big ideas and understandings as the foundation for elementary and middle school mathematics. *Journal of Mathematics Education Leadership*, 7(3), NCSM.

Clements, D. H., & Sarama, J. (2019). Learning and teaching with learning trajectories [LT]2. Marsico Institute, Morgridge College of Education, University of Denver. <https://www.learningtrajectories.org/>

Common Core Standards Writing Team. (2019). [Progressions for the Common Core State Standards for Mathematics](#). Tucson, AZ: Institute for Mathematics and Education, University of Arizona.

Richardson, K. (2012). How Children Learn Number Concepts: A Guide to Critical Learning Phases. Bellingham: Math Perspectives Teacher Development Center.

Van De Walle, J., Karp, K. S., & Bay-Williams, J. M. (2018). *Elementary and Middle School Mathematics: Teaching Developmentally*. (10th edition) New York: Pearson (2019:9780134802084)

VDOE Curriculum Framework for All Grades - [Standard of Learning Curriculum Framework \(SOL\)](#)