



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework \(SOL\)](#)

[Bridging Standards of Learning \(SOL\) for Grade 6](#)

Bridging Standard of Learning (SOL) 6.3b Compare and order integers



Student Strengths	Bridging Concepts	Standard of Learning
Students can model integers, correctly label a number line, and understand mathematical symbols and use them correctly.	Students can compare and order integers in ascending or descending order and identify integers represented by a point on a number line.	Students can compare and order integers with a number line; and compare integers using mathematical symbols.

Understanding the Learning Trajectory

Big Ideas:

- An integer and its opposite are the same distance from zero on the number line.
- There is no greatest or least integer on the number line.
- A number to the right of another on the number line is the greater number.
- Numbers can be compared using greater than, less than, or equal.(Charles, 2005)
- Statements of inequality can be interpreted as statements about the relative position of two numbers on a number line diagram. (Common Core Writing Team, 2019, p. 8).

Formative Assessment:

- [Just in Time Mathematics Quick Check 6.3b Word](#)
- [Just in Time Mathematics Quick Check 6.3b PDF](#)
- [Just in Time Mathematics Quick Check 6.3b Desmos](#)

Important Assessment Look Fors:

- The student understands the meaning of ascending and descending.
- The student understands mathematical symbols $<$, $>$ and can conceptualize them from left to right, and right to left.
- The student understands that the further away from zero a negative number is, the smaller its value.
- The student understands the interval on the number line.

Purposeful Questions:

- What intervals are measured on the number line?
- Where do you see positive and negative values?
- What does it mean when a negative number has a greater distance away from 0 on a number line?
- How do you know this integer is larger? How do you know this integer is smaller?

Bridging Activity to Support Standard	Instructional Tips
Routine Clothesline Math	Have students complete this as a digital activity, physically line themselves up, or hang up a clothesline in the classroom.
Rich Tasks VDOE 6.3 Winning the Game Template and Task	This task covers all strands of 6.3 Discussions can involve representing the scores with integers, ordering the friends based on their integer score, and absolute values
Games/Tech Compare and Order Integers , PhET Desmos 6.3b Six Sliding Spots: Opposites and Integers	Compare integers on a number line informally and also in an inequality statement. Identify the opposite of an integer as you change a point on a number line. Understanding the concept of "opposites" and integers. Sketching and sliding points to appropriate locations on a number line. Determining whether inequalities involving opposites and integers are true or false. Creating a "clothesline" number line with a variable 0 and 1 and plotting points accordingly.

Other Resources:

- [Gold Rush](#): Students will compare and order integers on a horizontal and vertical number line.
- VDOE Mathematics Instructional Plans (MIPS)
 - [6.3b - Compare and Order Integers](#) (Word) / [PDF Version](#)
- VDOE Co-Teaching Mathematics Instruction Plans (MIPS)
 - [6.3b - Comparing and Ordering Integers](#) (Word) / [PDF Version](#)
- VDOE Algebra Readiness Formative Assessments
 - [SOL 6.3b](#) (Word) / [PDF](#)
- VDOE Algebra Readiness Remediation Plans
 - [Compare Integers](#) (Word) / [PDF](#)
- Desmos Activities
 - [Six Sliding Spots: Opposites and Integers](#)

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.

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.

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

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)

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