



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework](#)

Standard of Learning (SOL) 2.17 Demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol.



Student Strengths	Bridging Concepts	Standard of Learning
Students can determine if equations involving addition and subtraction are true or false.	<p>Students can create two sets that have the same value.</p> <p>Students can demonstrate an understanding of equality through the use of the equal symbol.</p>	Students can demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol.

Understanding the Learning Trajectory

Big Ideas:

- Understanding equivalency and proper use of the equal sign contributes to success in algebra.
- An expression is a number, variable, or a combination of numbers and operation symbols.
- An equation is made up of two expressions connected by an equal or unequal symbol.
- The use of various representations will facilitate a deeper understanding of equality.

Formative Assessment:

- VDOE [Just in Time Mathematics Quick Check 2.17 PDF](#)
- VDOE [Just in Time Mathematics Quick Check 2.17 Desmos](#)

Important Assessment Look Fors:

- Student identifies groups of equal value and unequal value.
- Student describes the meaning of equality.
- Student identifies and uses the equal and not equal symbol appropriately.
- Student finds the values of two expressions and determines whether they are equal or not equal.

[Math Strength Instructional Video 2.17](#)

Purposeful Questions:

- Can you build another set that has the same value as this set?
- How can you determine if two quantities are equal or not equal?
- Which symbol completes this equation? How do you know?
- Can you create two expressions that are equal? unequal?
- Is there another way to prove you are correct?

Bridging Activity to Support Standard	Instructional Tips
Routine Same but Different	This routine can be combined with notice and wonder. As students are sharing responses, record the equations and expressions the students share.
Rich Task Finding a Balance-3 Act-Task	If a number balance is available for students to use, consider allowing them the opportunity to try different solutions. Another option might be using a balance scale with similar objects as well.
Games/Tech Equal Pairs Game Virginia Beach City Public Schools Desmos 2.17 Making Equal Expressions	Consider using talk cards to help guide discussion. Students need to explain their thinking before they can keep the match. Students create two different expressions that are equal. When the student submits, the robot lets them know if they are correct or not.
Other Resources: <ul style="list-style-type: none"> • VDOE Mathematics Instructional Plans (MIPS): <ul style="list-style-type: none"> ◦ 2.17 - Balancing Act (Word) / PDF Version • VDOE Word Wall Cards: Grade 2 (Word) (PDF) Learning Trajectory Resources: <p>Charles, R. (2005). Big ideas and understandings as the foundation for elementary and middle school mathematics. <i>Journal of Mathematics Education Leadership</i>, 7(3), NCSM.</p> <p>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/</p> <p>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.</p> <p>Richardson, K. (2012). How Children Learn Number Concepts: A Guide to Critical Learning Phases. Bellingham: Math Perspectives Teacher Development Center.</p> <p>Van De Walle, J., Karp, K. S., & Bay-Williams, J. M. (2018). <i>Elementary and Middle School Mathematics: Teaching Developmentally</i>. (10th edition) New York: Pearson (2019:9780134802084)</p> <p>VDOE Curriculum Framework for All Grades - Standard of Learning Curriculum Framework (SOL)</p>	