



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework](#)

Standard of Learning (SOL) 2.6b Determine sums and differences, using various methods.



Student Strengths	Bridging Concepts	Standard of Learning
Students can recognize and describe part whole relationships within 10.	Students can demonstrate fluency with addition and subtraction within 20.	Students can determine sums and differences, using various methods.

Understanding the Learning Trajectory

Big Ideas:

- Flexible methods of addition and subtraction involve composing and decomposing numbers in a variety of ways.
- Flexible methods for computation require a strong understanding of the operations including the properties of operations.

Formative Assessment:

- VDOE [Just in Time Mathematics Quick Check 2.6b \(PDF\)](#)
- VDOE [Just in Time Mathematics Quick Check 2.6b \(Desmos\)](#)

Important Assessment Look Fors:

- Student uses estimation strategies before and after solving addition and subtraction problems.
- Student illustrates or acts out a story problems to determine the operation needed to solve.
- Student uses various methods for computing and describes how the method works.

Purposeful Questions:

- What strategy did you use to find an answer? Why did you choose that strategy?
- Is there another strategy you could try?
- Will your strategy work for other numbers? How do you know?
- How can estimation help you decide if your answer is correct?

Bridging Activities to Support the Standard	Instructional Tips
Routine Number Talks	This routine should be done regularly. Consider creating anchor charts with students' invented strategies as reference and have conversation about efficiency of strategies. Also highlight when estimation strategies are used to help compute.
Rich Task Bright Idea-3-Act Task Cookie Monster 3-Act Task From Graham Fletchy Cookie Monster	Depending on how a student thinks about the problems, addition and subtraction strategies could be used. Be sure to have students share their strategies as they consider the solution to both tasks.
Games Place Value Roll	This game can be adapted for both addition and subtraction. Consider not using the number grid but instead have manipulatives such as base-10 blocks and beaded number lines available for student use. Use talk cards so student discourse is evident. One talk card to consider is, "Can you show me another way?"
Other Resources: <ul style="list-style-type: none"> ● Video: Progression of Addition and Subtraction ● VDOE Mathematics Instructional Plans (MIPS): <ul style="list-style-type: none"> ○ 2.5/2.6 - The FUNction Machine (Word) / PDF Version ○ 2.6ab - Hopping on the Number Line (Word) / PDF Version ○ 2.6ab - What's the Difference? What's the Sum? (Word) / PDF Version ○ 2.6ab - Target 100 (Word) / PDF Version ○ 2.6b - Place Value Roll (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>	