



Bridging for Math Strength Resources

Standards of Learning (SOL) Curriculum Framework

Standard of Learning (SOL) 1.1c Count backward orally by ones when given any number between 1 and 30.



Student Strengths	Bridging Concepts	Standard of Learning
<p>The student will count backward orally by one when given any number between 1 and 10</p> <p>The student will count forward by ones from 0 to 100</p>	<p>Students can identify the number before, without counting, when given any number between 1 and 30.</p> <p>Students can count backward orally by ones when given any number between 1 and 20.</p> <p>Students can count backward by ones when given the exact number of manipulatives to remove as he or she counts.</p>	<p>Students can count backward orally by ones when given any number between 1 and 30.</p>

Understanding the Learning Trajectory

Big Ideas:

- Counting backward by rote lays the foundation for subtraction (VDOE curriculum framework)
- Counting forward and backward leads to the development of counting on and counting back. (VDOE curriculum framework)
- Counting backward by ones helps students in the counting phase move to a transitional phase in which they use base ten representations to aid subtraction. (OGAP)

Formative Assessment:

- VDOE Just in time Quick Check [PDF](#) / [Google slides](#)

Important Assessment Look Fors:

- Student follows number patterns to count backward by 1s.

- Student moves through decade numbers with ease (22, 21, 20, 19)
- Student states number before when given a number out of order.
- Student corrects mistakes.

Purposeful Questions:

- What patterns do you notice when counting?
- What comes before 9? How can that help you count backwards from 29?
- Why do you think it is important for us to say “zero” when we finish counting backwards?

Bridging Activity to Support Standard	Instructional Tips
Routine <u>Choral Counting</u>	<i>Choral Counting</i> is an activity in which students count together by a given number as the teacher records the count on the board. The purpose of a choral count is not just to practice rote counting, but to engage students in reasoning, predicting, looking for patterns, and justifying things they notice in the count.
Rich Tasks <u>Teach the Puppet</u>	Using a puppet, count backwards and make mistakes. Let students “teach the puppet” by explaining the mistake and providing the correct response.
Games <u>Count Down Teams</u>	Activity #10, but others listed may be useful for your students, too.

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [1.1c - 3, 2, 1, Blast Off!](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 1 [\(Word\)](#) | [\(PDF\)](#)
 - Counting by Ones
- VDOE Instructional Videos for Teachers:
 - [Developing Early Number Sense \(grades K-2\)](#)
 - [Using a Beaded Number Line \(grades K-2\)](#)

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 \(SOL\)](#)