



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

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 \(SOL\)](#)