



Bridging for Math Strength Resources

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

Standard of Learning (SOL) K.3A Count forward orally by ones from 0 to 100.



Student Strengths	Bridging Concepts	Standard of Learning
Count forward orally to 20 or more.	Count forward orally to 50.	Count forward orally by ones from 0 to 100.

Understanding the Learning Trajectory

Big Ideas:

- Students progress from initially chanting and stringing together multiple number words, to articulating each individual number with distinct words. This indicates their understanding of the uniqueness of each spoken number. In particular, they progress in articulating similar-sounding numbers, such as “fourteen” and “forty.”
- Students learn that teen numbers name the number of ones before “teen,” meaning 10, unlike the numbers in the decades from 20 to 100 in which there is agreement between the written and spoken word, with the number of tens written and spoken first. Students develop an understanding that the decade words indicate the number of tens, such as 2 tens (20), 3 tens (30), 4 tens (40), etc. and that the suffix “-ty” means ten.
- Students initially make mistakes such as “twenty-nine, twenty-ten, twenty-eleven, twenty-twelve...” until they develop an understanding of the relationship between written and spoken number words. They eventually learn to make decade transitions, and they come to recognize that the decade sequence mirrors the single-digit sequence.

Formative Assessment:

- VDOE [Math Strength Assessment K.3A \(Seesaw\)](#)
- VDOE [Mathematics Quick Check K.3A \(PDF\)](#)
- VDOE [Mathematics Quick Check K.3A \(Google Slides\)](#)

Important Assessment Look Fors:

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- Student says each number in sequence from 0 to 100.
- Student differentiates between similar sounding numbers, such as *fourteen/forty* and *fifteen/fifty*.
- Student applies patterns in their count sequence.
- Student transitions from one decade to the next (*nineteen, twenty, twenty-one... twenty-nine, thirty, thirty-one... thirty-nine, forty, forty-one*).

Purposeful Questions:

- What patterns do you notice when counting to 100?
- What do you notice whenever you get to a number that ends in 9 (i.e., 9, 19, 29, 39 etc.)? Why does the next number you say end in zero (i.e., 10, 20, 30, etc.)?

Bridging Activity to Support Standard	Instructional Tips
Routine Choral Counting , tedd.org	Focus on the oral counting sequence. Low risk routine since students are counting together. Can be adapted to stop at different numbers and to count in different ways (ex: backward, forward by 10s, etc.). Counting forward by rote, supported by visuals such as the hundred chart or number path, may assist in advancing student's development of sequencing. The teacher can also write numerals during the counting to reinforce numeral recognition.
Rich Tasks	
Games Hundreds Chart , VDOE	Drill to practice oral counting sequence. Roll the dice, cover the number of squares, count the total. Hundreds charts can also be printed and cut up so that students can put them together and practice counting. Can be played in partners or independently. Consider teacher proximity to monitor counting.

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - K.3abc – [Garbage](#) / (PDF)
 - K.3abd – [Meaningful Rote Counting](#) / (PDF)
- VDOE Word Wall Cards: Kindergarten ([Word](#)) | ([PDF](#))
- [Circle Count](#) (Routine)
- [Number Snake](#) (Game)

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 \(SOL\)](#)