

Bridging for Math Strength Resources

Standards of Learning Curriculum Framework

Standard of Learning (SOL) 2.3

- a) count and identify the ordinal positions first through twentieth, using an ordered set of objects; and
- b) write the ordinal numbers 1st through 20th.



Student Strengths	Bridging Concepts	Standard of Learning
Given an ordered set of ten objects and/or pictures, Students can indicate the ordinal position of each object, first through tenth. Students can describe the location of one object relative to another (above, below, next to)	Students can orally match the ordinal terms (first, second, third, fourth, etc) to the cardinal counterpart. Students understand and can use the vocabulary words left, right, top, and bottom.	Students can a) count and identify the ordinal positions first through twentieth, using an ordered set of objects; and b) write the ordinal numbers 1st through 20th.

Understanding the Learning Trajectory

Big Ideas:

- An understanding of the cardinal and ordinal meanings of numbers is necessary to quantify, measure, and identify the order of objects.
- The ordinal meaning of numbers is developed by identifying and verbalizing the place or position of objects in a set or sequence (VDOE curriculum framework)
- An ordinal counter is someone who can identify and use ordinal numbers from first to tenth. Ordinal counters can also make connections to counting words. For example, if you are fifth in line, you are number 5 in line. (Clements, D. H., & Sarama, J.)

Formative Assessment:

• VDOE Just in time Quick Check SOL 2.3a PDF / Desmos

Virginia Department of Education

VDOE Just in time Quick Check SOL 2.3b <u>PDF / Desmos</u>

Important Assessment Look Fors:

- Student can identify where to start when counting, indicating they know left, right, top, and bottom.
- Student can match the correct ordinal position with the cardinal numbers.
- Student can place the correct drawing or notation in the correct spot indicating they understand ordinal number placement.

Purposeful Questions:

- How did you know which shape is fifth from the right? How did you know which shape to put an "x" on?
- How did you know the order of ice cream colors? How did you know to start from the top? bottom?
- How did you know where to find the twelfth shape? Fourteenth?

Bridging Activity to Support Standard	Instructional Tips
Routine	This routine can be used throughout the instructional day, particularly when it is time to
Who's Up First	line up for transitions (recess, lunch, gym, art, etc.). Consider posting an ordinal number
	chart near the classroom door to support student vocabulary development.
Rich Tasks	In this activity, students order donuts (biscuits) according to the toppings(decorations). This
Biscuit Decorations	task focuses on skip counting, however it is a task that can easily incorporate ordinal
	numbers.
Games	This game provides practice in using ordinal numbers. Some students may benefit from
Squigly's Apple	having supports such as a number chart or ordinal number chart. Remove supports when
	students have had a chance to develop vocabulary of ordinal numbers.

Other Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - o 2.3ab Ordinals (Word) / PDF Version
 - o <u>2.3ab Hermit Crab Ordinal Numbers</u> / <u>PDF Version</u>
- VDOE Word Wall Cards: Grade 2 (Word) | (PDF)

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). <u>Progressions for the Common Core State Standards for Mathematics</u>. 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)