

Virginia Essentialized Standards of Learning (VESOL) Mathematics Instruction Resources

Teachers providing VESOL mathematics instruction should consult the Virginia Department of Education (VDOE) [Mathematics Standards of Learning](#), [Learning Disabilities in Mathematics](#), and [Mathematics Instruction Resources](#) for up-to-date mathematics instruction resources.

VDOE Mathematics Instruction Resources spotlighted to support VESOL instruction include:

- [Mathematics Vertical Articulation Tool \(MVAT\)](#) – This tool provides support in identifying concepts aligned to the 2016 *Mathematics Standards of Learning* (SOL) that articulate across mathematics grade levels or courses.
- [Mathematics Vertical Articulation Grades 3 – HS VESOL by Strand Concepts](#) - Adapted from the Mathematics Vertical Articulation Tool (MVAT), this tool identifies VESOL's and their corresponding SOL's that articulate across grade-levels.
- [Mathematics Vertical Articulation Grades K – Algebra II SOL by Strand Concepts](#)- These versions of the MVAT address all five strands across select grade levels and include mathematics SOL numbers only.
- [Desmos Activity Log](#)- This Excel spreadsheet contains a tab for each grade-level/mathematics course from Grade 2 through Algebra II. Each grade level sheet includes a list of SOL-aligned Desmos activities with a brief description and direct link to the activity on the Desmos website.
- [Evidence-Based Specially Designed Instruction in Mathematics Resource Guide](#) (PDF) - This guide provides an overview of evidence-based instructional strategies that educators can utilize to support students with mathematics disability or difficulty at any grade.
- [Just in Time Mathematics Quick Checks](#)- These formative assessments that align to the 2016 Mathematics Standards of Learning (SOL). These resources, developed by Virginia teachers and mathematics leaders, are designed to help teachers identify students with unfinished learning and assist in planning instruction to fill potential gaps “just in time.”
- [Mathematics Vocabulary Word Wall Cards](#) - (K-8, Algebra I, Geometry, AFDA, and Algebra II) This collection provides mathematics content words and associated visual cues to assist in vocabulary development.
- [Rich Mathematical Tasks](#) – (K-8, Algebra I, Geometry, Algebra II) These resources are provided to support teachers in implementing the 2016 *Mathematics Standards of Learning* in their classrooms. Teachers are encouraged to not only use these tasks with their students, but also to endeavor to implement them with fidelity by utilizing the detailed information provided in the task implementation templates.
- [Mathematics Instructional Plans](#) – These instructional plans are aligned to the 2016 *Mathematics Standards of Learning* to assist teachers in aligning instruction to the essential knowledge and skills.

Virginia Department of Education Virginia Essentialized Standards (VESOL) Instruction Resource

- [Students with Disabilities in Mathematics: Frequently Asked Questions](#) (PDF) - This document provides an overview of the characteristics of mathematics disability as well as information about accommodations, modifications, and assistive technology that can support a student with a disability in mathematics.
- [TTAC Online Mathematics Standards of Learning Instructional Strategies and Resources](#) - Comprehensive compilation of Virginia standards of learning resources and instructional strategies to support students with disabilities in mathematics

Other resources to support VESOL mathematics instruction include:

Go Open Virginia

- [GoOpenVA](#) - a collaborative initiative that enables educational entities throughout Virginia to create, share, and access openly-licensed educational resources (OER, also known as open education resources). OER are free digital materials that can be used or modified to adjust to student needs. They are openly-licensed unhampered by many traditional copyright limitations.

National Center on Intensive Intervention (NCII)

- [Mathematics Strategies to Support Intensifying Interventions](#)- NCII developed a series of mathematics lessons and guidance documents to support special education instructors, mathematics specialists, and others working with students who struggle with mathematics. These lessons and activities are organized around six mathematics skill areas:
 - [Number System Counting](#)
 - [Basic Facts](#)
 - [Place Value](#)
 - [Place Value Computation](#)
 - [Fractions as Numbers](#)
 - [Computation of Fractions](#)

Concrete, Representational, Abstract (CRA):

- [Concrete Representational Abstract Approach](#)- CRA is a sequential instructional approach through which students move from working with concrete materials to creating representational drawings to using abstract symbols. Using this concrete-representational-abstract sequence helps students develop the thorough mental representations that are foundational for conceptual understanding.
- [The CRA Sequence](#)- This video discusses what instruction looks like across a CRA sequence.

Virtual Manipulative Resources:

- [National Library of Virtual Manipulatives](#)
- [Toy Theater Virtual Manipulatives](#)
- [Geogebra](#)

Number lines:

- [Paths to Literacy-Functional Number Line for Students with CVI](#)