

List of Published Math Intervention Programs and Assessments for Middle Grades

Important Note: We are providing this list as a resource. The *Strengthening Mathematics Intervention* (SMI) project does *not* endorse or recommend any specific programs. This list is not exhaustive and is a work in progress. If you are familiar with additional mathematics intervention programs and assessments, please send the names to abrodesky@edc.org. We will periodically update this list.

I. Mathematics Intervention Programs (includes grades K-8)

A. Print Programs (Listed alphabetically)

[Bridges Intervention](#): designed for Tier 2 interventions; addresses key numeracy and computation skills and concepts for K-5

[Fraction Activities and Assessments for Conceptual Teaching](#) by Dr. Jessica Hunt, NC State; focuses on foundational fraction topics; includes diagnostic fraction tasks, learning trajectories, instructional activities, and PD videos; materials can be downloaded for free

[Do the Math Now](#): Grades 1-6 intervention curriculum by Marilyn Burns.

[Gap-Closing Units](#): intervention units developed by Marian Small (Ministry of Education Ontario) that you can download for free. Select “Number Sense/Junior English” and “Intermediate Senior English” and then select units on different topics, such as Fractions, Integers, etc.

[Mathematics Navigator Common Core](#): targeted intervention programs for grades 1-8.

[MathLinks Essentials](#): intervention modules that focus on the major topics of middle school mathematics. Its primary goal is to make content accessible to students in need of intervention, English learners, and students with disabilities.

[Math Pathways and Pitfalls](#) (West ED): K-8 intervention curriculum that has an emphasis on building academic language. The grades 4-8 units focus on rational number conceptions and operations, ratios and proportions with algebraic reasoning woven throughout.

[Math Perspectives](#) (Kathy Richardson): K-2 Assessing Math Concepts (AMC) is a continuum of nine assessments that are formative, summative, and diagnostic, and pinpoint what a child knows and still needs to learn.

[SOAR Mathematics Intervention](#) (grades 1-8) from Institute for Learning, University of Pittsburgh

[Transition to Algebra](#) (EDC): program that focuses on Algebra 1 content to support struggling math learners. Instead of reteaching the same algebra curriculum in the same way to struggling students, *Transition to Algebra* uses logic puzzles, problems, and explorations to help teachers build students' mathematical ways of thinking.

B. Technology-based or Blended Intervention Programs (Listed alphabetically)

[Aleks](#) (McGraw Hill): Adaptive K-12 online program that uses open response questions.

[Ascend Mathematics](#): Online intervention program that includes video instruction and assessments.

[Dreambox](#): Online math learning for K-8 with adaptive features, games and assessments.

[i-ready Mathematics](#): Adaptive, diagnostic assessments and personalized instruction.

[Math 180](#): Blended learning model combines whole class activities with individualized software activities. For grades 5 and up.

[Mathia](#) from Carnegie Learning: online program for grades 6-12, includes formative assessment, adaptive instruction

[TransMath](#) (Voyager Sopris) Blended intervention program that has an online-only option for students in grades 1-8. From Voyager Sopris.

C. Resources for Building Fluency with Math Facts

- [Fluency without Fear: Research Evidence on Best Ways to Learn Math Facts](#)
Jo Boaler, youcubed.org
- [Reflex Math](#): online program for fact fluency
- [Math Fact Fluency Companion Website](#) for the book by Jennifer Bay-Williams and Gina Kling, website by Kentucky Center for Mathematics

II. Websites with Mathematics Tasks and Apps

There are many websites with engaging mathematics tasks, activities and apps that can be used as resources for creating lessons in intervention classes. This is not an exhaustive list. Most of the links below are for free resources.

Listed Alphabetically

- [Algebra by Example \(SERP Institute\)](#)
- [CitizenMath](#)
- [Desmos](#)

- [Estimation 180](#)
- [Illustrative Mathematics](#)
- [NCTM Illuminations](#)
- [Inside Mathematics](#)
- [Math Assessment Project](#)
- [Math by Example \(SERP Institute\)](#)
- [Numberless Word Problems](#)
- [Open Middle Problems](#)
- [Open Up Resources](#)
- [Poster Problems](#) (SERP)
- [Problem Based Lessons](#) (Robert Kaplinsky)
- [Routines for Reasoning](#)
- [Three-Act Math Tasks](#) (Dan Meyers)
- [Youcubed](#)
- [Yummymath](#) (real world math activities)

Math Apps and Virtual Manipulatives (listed alphabetically)

- [Fraction Apps](#) from EDC
- [Interactivate Math Apps](#)
- [Mathsbot.com](#)
- [Mathigon](#) geometry topics
- [National Library of Virtual Manipulatives](#)
- [NCTM Illuminations: Interactives](#)
- [Number Line App](#) and other [Apps](#) from the Math Learning Center
- [Phet](#) has virtual activities on fractions, proportions, graphing, algebra, and other topics
- [SolveMe Puzzles](#) from Transition to Algebra
- [Thinking Blocks](#)

III. Assessment, Screening and Progress Monitoring Tools

[Acadience Math](#) (K-6): Assessment tool that has measures of early numeracy, computation, and problem solving.

[Aimswest](#): M-CAP assessment for grades K-8

[ANET](#) (Achievement Network)– Interim Assessments

[CBMath](#): Curriculum based measurement assessment that have screening and progress-monitoring tools

Background Information on Curriculum Based Measurement

<https://my.vanderbilt.edu/specialeducationinduction/files/2013/07/IA.Math-CBM.pdf>

[Formative Assessment Probes](#): short probes for uncovering students' mathematics strengths, misconceptions and difficulties. The probes be used as paper-pencil items, card sorts and for student interviews. Example probes and resources can be downloaded for free.

[Gmade](#): Diagnostic assessment

[iReady](#): Diagnostic assessment

[MAP](#) (Measure of Academic Progress): Adaptive assessment for mathematics (g. 2-12)

[Mastery Connect](#): Assessment tools

[Star Math \(Renaissance\)](#): Computer adaptive assessment

IV. Research Reports and Resources

A. Practice Guides from Institute for Education Sciences (IES)

- [Assisting Students Struggling with Mathematics: Intervention in the Elementary Grades \(K-6\)](#) 2021 Guide
- [Developing Effective Fractions Instruction](#) in Kindergarten through 8th Grade
- [Improving Mathematical Problem Solving in Grades 4-8](#)
- [Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students](#)

B. Resources and Blog Posts on Math Intervention

- [Mathematics Focus by Grade Level](#) (Achieve the Core): helpful for selecting content priorities for intervention classes
- [Select Math Intervention Content](#) (Achieve the Core)
- [13 Thoughts on Math Teaching and Intervention as we enter the 2021 school year](#). (Mathematizing4all)
- [Intervention in Participation](#) (Mathematizing4all)
- [The Best Thing I Ever Did in My Support Math Classes](#) (Sarah Van Der Werf)