

K-8 Math Intervention Buying Guide



Introduction

Math isn't just for mathematicians. This [important](#) subject helps learners develop crucial skills, like the ability to analyze data and recognize patterns, and interpret information in new ways. With this in mind, we must move past rote memorization – having students memorize formulas and figures to solve problems, to math fluency – encouraging students to apply existing knowledge to solve problems. Incorporating math interventions throughout instruction ensures every learner has an opportunity to build these crucial skills.

With reports indicating that the COVID-19 pandemic is impacting students' growth in math at the [national level](#), districts must take steps to ensure teachers are equipped to meet learners' needs post-COVID. This means investing in quality intervention solutions that support effective instruction.

District and school leaders can use this buying guide to better understand the benefits of math intervention and select programs that meet the specific needs of their students.

Understanding math intervention

Often tied to a multi-tiered system of support (MTSS) and Response to Intervention (RtI), [math interventions](#) support students in reaching subject mastery. Interventions can be provided individually, or at the classroom level.

A. What is MTSS?

MTSS is a framework that helps educators provide academic and behavioral strategies for students with various needs. MTSS grew out of the integration of two other intervention-based frameworks: [Response to Intervention](#) (RtI) and [PBIS](#).

B. What is RtI?

RtI is a multi-tiered approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning.

C. What is individual math intervention?

Some children do not progress as expected, even though they participated in high-quality curriculum and received small and large group support. For these children, more intensive, [individualized instruction](#) is needed.

D. What is classwide math intervention?

[Classwide intervention](#) has been demonstrated to be highly useful to improve learning in many research studies in reading and mathematics following [Greenwood's study](#) of classwide peer tutoring. Common models include:

- a) [Peer Assisted Learning Strategies](#)
- b) [SpringMath Classwide Intervention](#)

E. Should every district have a math intervention program in place?

Regardless of a district's specific approach, having a math intervention program in place benefits teachers and students alike.

When implemented at the district level, math intervention programs help increase overall math scores, meet state standards, and accelerate student growth.

State standards for a program

Math intervention programs are useful for ensuring districts are able to meet (or exceed) state standards.

An effective math intervention program will reinforce the [Common Core Standards for Mathematical Practice](#):

A.	Make sense of problems and persevere in solving them
B.	Reason abstractly and quantitatively
C.	Construct viable arguments and critique the reasoning of others
D.	Model with mathematics
E.	Use appropriate tools strategically
F.	Attend to precision
G.	Look for and make use of structure
H.	Look for and express regularity in repeated reasoning

The pandemic has led to increased focus on the quality of instruction and learners' academic progress. Investing in standards-aligned solutions will help reinforce the decisions of administrators, principals and teachers.

Features of a quality math intervention program

When seeking out a math intervention program, it's important to consider which solution will best meet state standards but more importantly the specific needs of your district. Use the following checklist to evaluate programs during your search:



A transparent logic model

Does the program specify exactly what the mechanism of action is for what type of student outcomes?



Cost effectiveness data comparison

How does the program ensure a positive return-on-investment? Has the vendor measured and reported what it costs to attain learning improvements in math using their program?



Published evidence of assessment accuracy, utility, & intervention efficacy

Is there primary, published research investigating the accuracy, utility, efficacy, equity, and cost of the math intervention program?



Coaching feedback loop

Does the program use student learning gains to direct coaches to support math interventions?



Design linked to implementation science

Is the implementation of the program preceded by supports, like recommendations for intervention dosage and use?



Published dosage & integrity data

Are the effects of interventions evaluated in tandem with intervention use?

Math solutions and programs: What's available?

There's a wide variety of math solutions and programs available on the market, many of which are complementary to a math intervention program. Here are some examples:

Approach	Example solutions
1. Adaptive Math Games/Activities: Activities that adjust according to a student's skill level	DreamBox® Learning, Woot Math
2. Free Math Courses and Videos: Websites that provide math support and guidance in the form of videos and other lessons	Khan Academy, Math Playground
3. Math Assessment Creation Tools: Used to create quizzes and exams, often related to state assessments	Edulastic, Edcite
4. MTSS Math Assessment Solutions: Fit into a multi-tiered system of support (MTSS) and provides tools for screening and progress monitoring	FastBridge
5. Comprehensive Math Achievement Program: A comprehensive math achievement program will fit into an existing MTSS, and provide tools for universal screening, assessment, progress monitoring, and classwide or individual interventions.	SpringMath®

Accelerate student achievement with math interventions

The pandemic has made a significant impact on students' academic growth. The latest COVID-19 relief bill – [the American Rescue Plan](#) – addresses this issue by including funds for addressing learning loss.

We have yet to understand the [full impact](#) of COVID-19 on learners' progress. With this in mind, traditional methods of screening students are unlikely to be effective. A remedy for this problem is to build classwide interventions and progress monitoring into instruction.

Classwide math interventions are a research-based, cost-effective way to accurately screen students and close the math achievement gap. This style of intervention is built upon a peer-to-peer tutoring model, which has been [proven](#) to help students build confidence in math. Similar to individual student interventions, [classwide interventions](#) are used to help a group of learners attain mastery. Progress should be monitored from week to week to assess growth and provide individual interventions as needed.

With the information provided in this guide, district and school leaders are better equipped to evaluate and select math intervention programs that meet the needs of teachers and students alike.

About SpringMath

SpringMath is a research-based, easy-to-implement math intervention solution that's proven to accelerate achievement for all K-8 students. Developed in collaboration with a nationally-renowned educator, the company's highly interactive platform combines tools for assessment, intervention, and progress monitoring to help teachers provide a clear path to math achievement for every student.

Every student is unique. That's why SpringMath meets learners where they are, and creates personalized plans to help them achieve mastery. Our paper and pencil model helps students work through math problems, and simplifies the grading process for teachers, and our peer-to-peer, classwide interventions ensure every student has ample opportunities to learn.

Teachers are at the heart and soul of our model. SpringMath enables teachers to pinpoint exactly what a student needs, and identifies multiple options for providing support. No matter the goal or situation, SpringMath is prepared to help schools accelerate math achievement for every student.

SpringMath has evaluated classwide intervention as a second screening gate with excellent results and these data are published and also **rated on NCII**. Learn how SpringMath is helping districts **close the math achievement gap through classwide intervention**.



Ready to take the guesswork out of math intervention?

Take a quick peek at how you can with SpringMath in this short video: sourcewell.co/guesswork

Contact us at: springmath.org | info@springmath.org

