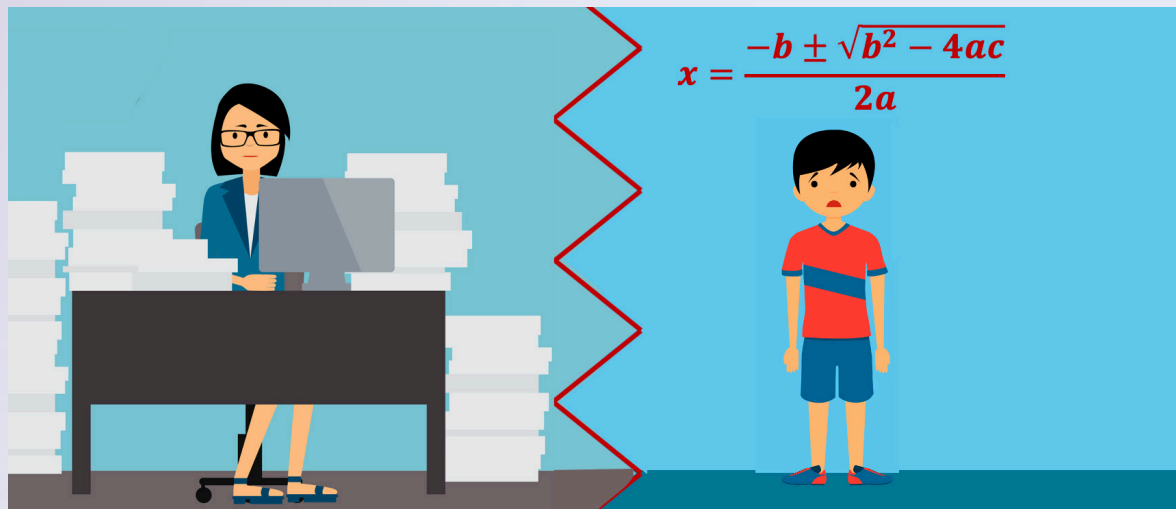


Tools for active math learning



MATH SKILLS AN URGENT PRIORITY



In schools across the USA, improving students' math skills is a critical area of focus. U.S. students consistently score in the middle or bottom tiers in international math evaluations, and the nation's lowest-performing students have gained no ground in math on the NAEP for nearly 30 years.

School closures during the COVID-19 pandemic only compounded the issue. In a May, 2020 poll 90% of educators were concerned about students falling behind in Math – more than in any other subject.

This is especially alarming, as research has shown that children's early mathematical knowledge is the strongest predictor of later success, not only in math, but in other academic domains. The consequences of math skills gaps are also far-reaching, as there is some evidence that numeracy is as important as literacy for predicting productivity, wages, and employment outcomes.

STRATEGIES FOR ENHANCING MATH INSTRUCTION

For schools focused on improving math outcomes, several approaches are proving to show results in helping close the gap, including:

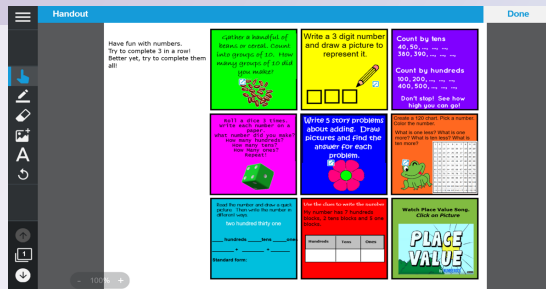
Hands-on learning: Research shows that the use of digital manipulatives such as geoboards, tangrams, pattern blocks, and money improves students' understanding of place value, addition, subtraction, and other areas of basic math.

Real-time checks for understanding: Studies have shown that students whose teachers consistently use real-time checks for understanding and adjust instructional practice accordingly score higher in math than those whose teachers do not.

Repeated practice: Research shows that providing students with opportunities for repeated practice using games, puzzles, playful experiences, integrated with elements of choice, improves their acquisition of basic math skills and their reported confidence in math.

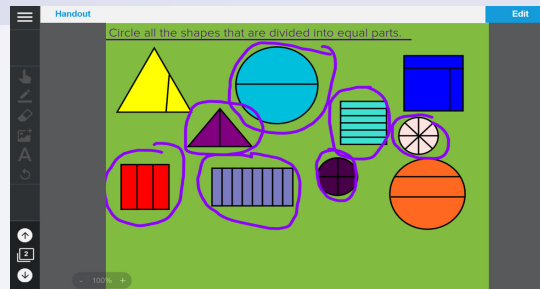
HOW LUMIO HELPS STUDENTS BUILD MATH SKILLS

The right digital tools can help teachers put these strategies into practice. Lumio is a digital learning tool that makes it easy to transform lessons into active, collaborative learning experiences to engage students on their devices, wherever they are. Students connect, in real-time or on their own time, with lessons that help them take charge of their learning while clearly demonstrating their progress.



Help students learn hands-on, even at a distance:

- Make math more **tactile and multi-sensory**. Lumio lets students play with objects, touch to reveal hints or rearrange variables to evaluate solutions.
- Make **math lessons interactive**. Teachers import lessons from PDF, PowerPoint, Google Slides or Docs, and quickly add digital manipulatives, videos, and customizable games.
- Provide **visual connections** that bridge concrete experiences with abstract reasoning. Lumio lets teachers instantly clone objects to create multiple digital manipulatives in a lesson. It also includes ready-made manipulatives like fraction tiles, a hundreds chart, a coin counter, a math expression creator, number lines, base ten blocks, and many more.



Check for understanding:

- **Monitor progress and adjust instruction**. Lumio gives teachers clear insights by letting them assign and observe progress on individual handouts, class activities, and small-group collaborative workspaces.
- Quickly **gauge the understanding of math concepts**. Lumio lets teachers instantly assess learning with a variety of question types including multiple-choice, short answer, multi-select and true/false.
- Give opportunities for **feedback and reflection**. Lumio shows students their individual results as they answer math questions on their devices, and lets them send ideas from their devices to a shared canvas as they reflect on their learning.



Provide opportunities for repeated practice:

- Make practice **fun and engaging**. Lumio's built-in games are fully customizable to any content, so teachers can give students captivating ways to practice and retain what they learn.
- **Reduce math anxiety**. Built-in and custom digital manipulatives allow students to explore and play with concepts and content at their own pace.

Talk to us today about how Lumio helps students build math skills in 1:1 classrooms. Interactive lessons and games, formative assessment, collaborative workspaces and more. Visit us online: [Lum.io](https://lumio.io)