

# THE MATH WARS: FREQUENTLY ASKED QUESTIONS

APRIL 2026

This FAQ is designed to guide your exploration of CRPE's [\*Navigating the Math Wars: A Practical Guide to the Divides and Debates Influencing Math Instruction.\*](#)

## 1. What are the Math Wars, and where does the Science of Math fit in?

The “Math Wars” refer to decades of public debate over what math students should learn and how it should be taught. These disagreements have often pitted advocates of reform-oriented, student-centered approaches to math education against those who favor traditional, teacher-led approaches. Recently, a newer movement, the Science of Math, has entered this landscape. Supporters of this movement argue that recommendations and policies about math education in schools must be firmly grounded in empirical research and cognitive science. But rather than settling longstanding disputes, this has opened a new front in the Math Wars: What constitutes strong scientific evidence and whose professional expertise should ultimately guide those decisions? Because these wide-ranging debates are ongoing and don’t always have a scientific consensus, the landscape can be difficult for educators to navigate.

→ **Important Sections to Read:** “*The ‘Old’ Math Wars: Two Roads Diverged*” and “*The ‘New’ Math Wars: Five Dichotomies and the Science of Math*”

## 2. Why do debates about math teaching keep resurfacing, and why haven't they been resolved?

These debates keep resurfacing because, even as the conversation has evolved, real disagreements remain. The simple either/or arguments common in headlines have given way to more nuanced disputes. For instance, reform-oriented and traditional-leaning advocates broadly agree that students need both procedural fluency and conceptual understanding. However, they still disagree on the order in which those should be taught, their respective emphasis, and how much direct guidance teachers should provide at different stages of learning. In other words, the issue is less a battle between two opposite sides than an ongoing debate over instructional priorities and which research should count. Those disagreements are also genuinely hard to settle because research itself is always evolving: as more evidence comes in, some questions get clearer answers, only to raise new ones. In short, the Math Wars continue to be reframed rather than fully resolved.

→ **Important Sections to Read:** *“The ‘Old’ Math Wars: Two Roads Diverged”* and *“The ‘New’ Math Wars: Five Dichotomies and the Science of Math”*

## 3. What is the Science of Math, and what is it not?

The Science of Math is best understood as a research-driven movement with growing influence, including real debate around its claims, scope, and evidence base. Its proponents argue that math instruction should be guided by empirical research and cognitive science, a goal widely shared by researchers, advocacy organizations, and educators. In practice, it emphasizes systematic, explicit instruction—structured, teacher-led teaching with clear modeling, guided practice, and corrective feedback—along with regular practice to build fluency, multi-tiered systems of support, and data-based decision-making. But it is not simply a call for rote memorization or teacher-led instruction all the time. The Science of Math argues that there is no one-size-fits-all, evidence-based practice. It frames its recommendations as especially relevant for students with disabilities and novice and struggling learners. It pushes back against alleged “myths,” such as the idea that conceptual understanding must always come before procedural fluency. At the same time, the Science of Math is not a settled consensus. It is newer than the Science of Reading, and while its published work draws on cognitive science and developmental psychology alongside its home disciplines of special education and school psychology, it has faced significant criticism from major mathematics education organizations.

Among the concerns critics have raised are the movement’s heavy reliance on special education research, exaggerated comparisons to the Science of Reading, selective use of research, and an excessive focus on explicit instruction.

→ **Important Sections to Read:** *“2020s: The Emergence of the Science of Math”* and *“Evaluating the Science of Math Debate”*

#### **4. Math experts and professional organizations sometimes issue conflicting guidance. How should school leaders and teachers navigate this?**

Guidance from math experts and professional organizations can differ depending on what problem they’re trying to solve. Some place more weight on fluency, accuracy, and efficient access to core skills, while others emphasize reasoning, problem-solving, student sensemaking, or broader goals related to equity and mathematical identity (how students see themselves as math learners). They may also draw on different kinds of evidence. Some research is better at showing whether an approach improves achievement, while other research helps explain classroom processes, student experience, or how instruction works in practice. Over time, professional communities can also become closely tied to their own preferred ideas and evidence, which can make disagreement feel more settled within each camp than it often appears from the outside. When guidance conflicts, the most productive response is often to ask sharper questions: What exactly is the claim? Which students does the evidence apply to? What kind of research supports it, and what does it leave out? Approached that way, conflicting guidance becomes less of a problem to resolve and more a prompt to read claims more carefully.

→ **Important Sections to Read:** *“The ‘New’ Math Wars: Five Dichotomies and the Science of Math”* and *“Building a Stronger Interdisciplinary Evidence Base”*

#### **5. Are the Math Wars really just about classroom instruction?**

While instruction is where the Math Wars debate is most visible in schools, there are also disagreements about curriculum, standards, how students are grouped or tracked, whether and when to accelerate students into advanced content, and whose expertise should shape the guidance teachers receive. Even debates that appear purely instructional—such as how much to drill arithmetic facts, when to introduce standard algorithms, or how much struggle to allow before stepping in—are often underpinned

by broader arguments about evidence, authority, and the goals of math education. At the heart of these debates is a deeper question: What is the purpose of mathematics? Is it to develop efficient problem-solvers, encourage flexible thinking, or ensure that all students, regardless of background, can access and succeed in math? The guide focuses most heavily on instructional dichotomies because they are the most common conflicts in classrooms and policy debates, but readers will find that each point of contention connects to these broader stakes.

→ **Important Sections to Read:** *“Introduction”* and *“The ‘Old’ Math Wars: Two Roads Diverged”*

## 6. Are these debates purely academic, or do they affect what happens in schools and classrooms?

These debates are far from purely academic, and they affect classrooms even when some of the research questions behind them are still unsettled. They reach educators through state policy, curriculum adoption, professional learning, and the guidance schools provide to teachers on what to emphasize in daily instruction. Students can encounter quite different instructional emphases depending on where they attend school. In some places, classrooms are moving toward more structured, intervention-oriented approaches, especially in the early grades. In others, reform-oriented approaches remain more visible. At the classroom level, the picture is also uneven: conventional routines and some unsupported practices remain common, while reform-aligned and evidence-based practices are implemented less consistently. The Math Wars may sound like an academic debate, but they shape real decisions about what gets taught, how it gets taught, and which students get access to which kinds of mathematical learning.

→ **Important Sections to Read:** *“Changing Tides: The Science of Math Emerges in State Policies”* and *“Inside the Classroom: Targeting Instructional Practices”*

## 7. How are states responding to concerns about math achievement?

For the most part, states are building stronger early-grade supports and more structured systems around math instruction. As of late 2025, 18 states plus D.C. have enacted math policies, many of which emphasized priorities associated with the Science of Math, including foundational numeracy, systematic and explicit instruction, fluency, universal screening, targeted intervention, data-based decision-making, high-quality instructional materials, and research-based professional development. The pattern is

not uniform, however. Some states, such as Alabama, Kentucky, Iowa, and Oklahoma, have adopted broad reform packages to tackle several of the priorities listed above, while others have focused more narrowly on tutoring, placement, or access to advanced coursework. A common thread is investment in teacher capacity, including required training hours and state support for implementation. But this does not mean states are adopting a single instructional framework. The stronger conclusion is that many states are moving toward more structured, intervention-focused priorities, while reform-oriented alternatives, such as California’s revised framework, remain visible. Whether these policies improve student outcomes is still too early to answer clearly.

→ **Important Sections to Read:** *“Changing Tides: The Science of Math Emerges in State Policies”* and *“State-Level Math Policies: Scope and Priorities”*

## 8. What does math instruction actually look like in most classrooms today?

Math instruction varies a lot, and available evidence paints an incomplete picture. Nearly a dozen studies involving more than 5,000 math teachers offer a useful snapshot, though most focused on kindergarten through middle school. What they suggest is that conventional routines remain common: widespread use of worksheets, frequent teacher-led lectures, and, in some settings, continued use of practices such as learning styles, which research does not support. Reform-aligned and evidence-based practices, by contrast, appear to be implemented less consistently. In one study of middle school teachers, cognitively demanding tasks were a priority on only about one-third of instructional days, and opportunities for students to talk through their reasoning or discuss ideas with each other happened on average once a week or less. Practices like moving from concrete examples to abstract concepts, or teaching students structured ways to solve word problems, were unfamiliar to many teachers in certain settings. One important caution is that conventional teacher-led routines are not the same as the systematic, explicit instruction studied in intervention research. In studies where explicit instruction was examined directly, implementation was often partial or inconsistent. Taken together, the evidence points to a clear gap between the practices most often recommended and those that occur most consistently in classrooms.

→ **Important Sections to Read:** *“Inside the Classroom: Targeting Instructional Practices”* and *“Identifying Local Priorities: Ground-Level Tactics”*

## 9. What’s the connection between the Science of Reading and the Science of Math, and how are they different?

The connection is real. The Science of Math was inspired in part by the Science of Reading, and several states have explicitly cited reading reforms as a model for pursuing similar changes in mathematics. Both movements call for instruction grounded in stronger empirical evidence, reflect dissatisfaction with existing practices, and both have influenced state policy at a notable pace. Despite the commonalities, the comparison has important limits. The Science of Reading eventually achieved something close to professional consensus; the Science of Math has not (yet). Prominent mathematics education organizations have issued formal critiques rather than converging around the movement’s recommendations, and the debate over what counts as strong evidence remains active. The two subjects also can’t be compared one-to-one. Reading instruction involves a clearer, more sequential progression, in which foundational decoding skills must become automatic before higher-order comprehension can take hold. Mathematics proficiency, by contrast, is generally understood to require multiple strands of knowledge developing simultaneously rather than in a fixed sequence, and the Math Wars have focused as much on what content should be taught as on how to teach it. Those differences are worth keeping in mind when weighing how far the reading analogy extends.

→ **Important Sections to Read:** *“Evaluating the Science of Math Debate”* and *“Policy Momentum: Cumulative Adoption of Reading and Math Policies”*

## 10. Are we headed for a “Science of Reading moment” in math, and what should leaders do in the meantime?

The Science of Math has not achieved the academic and professional consensus that the Science of Reading eventually did, and the gap matters. The Science of Reading’s sweeping influence on policy was driven not only by broad consensus but also by major public pressure, especially after Emily Hanford’s *Sold a Story* brought the reading debate to a much wider audience. Whether a similar catalyst will appear, and whether the field will eventually reach comparable agreement, remains unclear. In the meantime, leaders do not need to wait. The most practical next steps are local ones: get a clearer picture of what is actually happening in math classrooms, give teachers more specific, usable guidance, strengthen supports for core instruction before students fall behind, and build the systems, coaching, and routines that help stronger practice take hold more consistently.

→ **Important Sections to Read:** *“Inside the Classroom: Targeting Instructional Practices”* and *“Identifying Local Priorities: Ground-Level Tactics”*