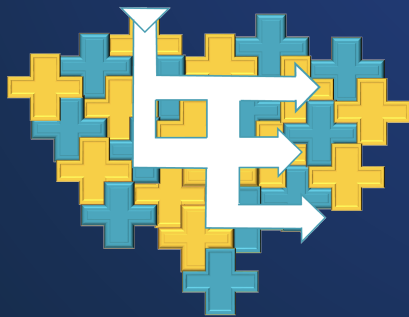


MATH INSTRUCTION & SCHOOL IMPROVEMENT

Lead to Empower Workshop & Advisory Catalog

Transforming mathematics classrooms through intellectual internalization, structured discourse, formative agility, and systemic instructional rigor.



Diagnostic Assessment

Comprehensive school-wide walkthroughs, curriculum audits, and actionable instructional roadmaps.

10 Signature Workshops

Deep internalization, MLRs, productive discourse, formative monitoring, and AI integration.

4-Stage Framework

A structured developmental trajectory moving from fidelity & pacing to enduring academic excellence.

LEAD TO EMPOWER LLC

Partnering with Schools & NYCPS Communities



Math Instruction Stages & Diagnostic Services

Our school improvement methodology meets educators at their current instructional stage and builds systemic mastery through a developmental progression framework paired with targeted diagnostic evaluations.

LEVEL
01

Stage 1: Fidelity & Pacing

Teachers understand curriculum structure, master conceptual rigor benchmarks, execute intentional pacing, and establish the foundational purpose of Mathematical Language Routines (MLRs).

LEVEL
02

Stage 2: Student Engagement

Instruction shifts toward strategy-based learning, rich higher-order questioning, conceptual exploration, and purposeful utilization of classroom resources without reducing cognitive demand.

LEVEL
03

Stage 3: Student Perseverance

Classrooms cultivate resilient environments where mistakes are valued as learning data. Teachers embed MLRs efficiently and leverage authentic student work to drive rich academic discussion.

LEVEL
04

Stage 4: Academic Excellence

Educators sustain deep student discourse, differentiate dynamically without diluting rigor, deeply internalize multi-grade unit trajectories, and analyze learning patterns to determine immediate instructional next steps.

Comprehensive School Assessment Services

DIAGNOSTIC & ADVISORY

To support schools in improving math instruction and student learning, Lead to Empower conducts a comprehensive diagnostic assessment. This includes interviews, walkthroughs, observations, and data analysis focused on messaging, alignment, and instructional impact. The process evaluates teaching practices, curriculum implementation, staff meeting effectiveness, and the relationship between school culture and student learning.

Interviews & Walkthroughs

Leadership & Teacher Voice

Instructional Observations

Rigor & MLR Implementation

Curriculum & Data Audit

Pacing & Alignment Review

Actionable Reporting

Strengths & Growth Pathways

Deliverable: Schools receive a detailed diagnostic report outlining systemic strengths, high-leverage opportunities, and actionable recommendations to strengthen instruction and school community.



Workshops: Curriculum, Rigor & Discourse

Interactive, research-backed professional development designed to elevate intellectual lesson preparation, high-demand task design, and rich student-led discourse.

Curriculum Mapping & Internalization Workshop

VERTICAL & HORIZONTAL ALIGNMENT

Educators unpack the full scope and sequence of their math curriculum to build strong vertical and horizontal alignment across grade levels. Participants internalize upcoming units by solving core tasks, anticipating misconceptions, and identifying key mathematical milestones. By mapping learning trajectories, teachers ensure intentional pacing and preserve conceptual coherence across daily instruction. This workshop moves educators beyond surface-level lesson delivery toward a deep understanding of the overarching mathematical narrative.

Lesson Plan Internalization Workshop

INTELLECTUAL PREPARATION

Teachers shift from basic preparation to deep intellectual internalization of daily math lessons. Participants analyze lesson objectives, curate high-leverage tasks, and script intentional pivot points based on anticipated student responses. By mastering the underlying mathematics of each lesson, educators facilitate flexibly and responsively—without relying on rigid procedural scripts. This empowers teachers to anticipate student thinking and make real-time adjustments that maintain rigor.

Reviewing Mathematical Rigor Workshop

THREE PILLARS OF RIGOR

This session examines the three pillars of rigor: conceptual understanding, procedural skill/fluency, and real-world application. Educators evaluate current tasks and assessments to ensure cognitive demand remains high and is not diminished by over-scaffolding or answer-chasing. Participants practice designing and adapting tasks that promote critical thinking and flexible problem-solving. Teachers leave with concrete strategies to maintain high expectations for every learner.

Mathematical Language Routines & Mathematical Practices

LANGUAGE & INCLUSIVITY

Focused on the intersection of language and mathematics, this workshop equips educators with research-based Mathematical Language Routines (MLRs). Participants learn to integrate structured language supports that help all students—especially multilingual learners—read, write, and speak mathematically. These routines strengthen communication, deepen conceptual understanding, and build inclusive math communities where vocabulary grows naturally through context.

Mathematical Questioning & Student Discourse Workshop

PRODUCTIVE DIALOGUE

Educators learn to transform classrooms into vibrant hubs of mathematical conversation. The workshop shifts teachers away from low-level questioning toward open-ended facilitation that probes for deeper reasoning. Participants practice frameworks for orchestrating productive discussions where students critique, justify, and refine strategies. This approach builds student ownership, normalizes errors as learning data, and strengthens collective mathematical identity.



Workshops: Formative Systems, Differentiation & AI

Using Student Work to Engage Students Workshop

FORMATIVE ARTIFACTS

Teachers learn to leverage formative student work as a powerful engagement and planning tool. Instead of focusing solely on correctness, participants analyze student artifacts to uncover strategy, logic, and inventive thinking. Educators practice selecting and sequencing authentic student work during lessons to spark peer analysis and debate. This elevates student voice, highlights multiple pathways, and drives responsive instruction.

Monitoring Student Progress Workshop

REAL-TIME DATA LOOPS

This workshop builds efficient systems for real-time monitoring of student understanding. Educators design targeted look-for criteria and develop monitoring sheets aligned to essential mathematical practices. Participants practice collecting actionable data while circulating, enabling immediate feedback and early misconception detection. These formative feedback loops support dynamic small-group and whole-class adjustments.

Scaffolding Mathematical Concepts Workshop

CVA PROGRESSION

Teachers explore the Concrete-Visual-Abstract (CVA) progression to support struggling learners without reducing cognitive demand. Participants design just-in-time scaffolds that provide entry points while preserving the core problem-solving experience. This ensures all students access grade-level mathematics through strategic, supportive bridges rather than diluted tasks.

Implementing Stations Workshop

DIFFERENTIATED WORKSHOP MODEL

Educators learn to launch and manage a high-functioning, differentiated math workshop model. The session covers designing meaningful independent stations, reinforcing prior learning, integrating math games, and offering rich extensions. Teachers also learn logistics for smooth transitions, accountability systems, and classroom setup. With autonomous stations in place, teachers can pull targeted small groups for intensive instruction.

AI-Driven Math Instruction & AI for Student Engagement

NYCPS-ALIGNED AI TOOLS

Participants explore how NYCPS-available AI tools can enhance lesson planning, differentiation, and real-time feedback. Educators design AI-enhanced tasks that promote critical thinking, discourse, and problem-solving. The workshop highlights ways to use AI to increase student ownership while maintaining rigor and alignment to standards.

Partner with Lead to Empower

Whether your school requires an on-site diagnostic assessment, customized single/multi-day workshop series, or continuous instructional coaching, we collaborate with leadership teams to elevate mathematics outcomes across all grade levels.

[Schedule a Diagnostic Consultation](#)