Driving Student Growth Beyond Identification

A Leader's Guide to Executing Math Improvement Plans (K-3)

Now that universal screening (within the first 30 calendar days) and diagnostic assessments (within the first 45 calendar days) have identified at-risk K-3 students and initial Mathematics Improvement Plans (MIPs) are written (within the first 60 calendar days), school and district leaders must pivot from compliance to active, data-driven execution. Having a plan on paper does not drive student growth – fidelity of implementation, collaborative problem-solving, continuous progress monitoring and active family partnership do. This guide outlines actionable steps for principals, instructional coaches and district leaders to turn MIPs into dynamic engines of student achievement within the Kentucky Multi-Tiered System of Supports (KyMTSS) framework.

1. Grounding Execution in the KyMTSS Four-Step Problem-Solving Cycle

Under KRS 158.8402 and 704 KAR 3:095, the Mathematics Improvement Team operates as a student-level KyMTSS collaborative problem-solving team. Leaders must ensure teams do not view the MIP as a static document, but as a continuous cycle:

Step 1: Problem Definition

Clearly state performance gaps anchored in screener/diagnostic data (MIP, Sections 1 and 2).

Step 2: Problem Analysis

Identify underlying root causes – such as missing prerequisite skills, underdeveloped procedural fluency, conceptual misconceptions or mathematical language demands – while proactively considering exclusionary factors like attendance, language proficiency or instructional quality gaps (MIP, Section 2).

Step 3: Planning and Implementation

Deliver research-aligned intervention routines matching student need (MIP, Section 2).

Step 4: Evaluation and Progress Review

Examine graphed data after six to eight points to make formal decisions on tier movement or plan adjustments (MIP, Section 3).

2. Leadership Action Protocol: Post-Plan Execution

Phase A: Ensuring Instructional Alignment and High-Fidelity Delivery

Interventions must bridge foundational gaps without removing students from Tier 1 core instruction or grade-level experiences.

Protect Tier 1 Access: Ensure Tier 2 (recommended 20-30 minutes, three to five times per week) and Tier 3 (recommended 30-45 minutes daily) intervention sessions are scheduled in addition to the Tier 1 core math block.

Align Evidence-Based Classroom Practices: Align evidence-based classroom practices as required in KRS 158.8402 by verifying that targeted instruction integrates the six Institute of Education Sciences core math practices: systematic instruction, explicit math vocabulary, concrete-representational-abstract sequences, number lines, schema-based word problem diagrams (bar models) and timed fact fluency practice.

Conduct Fidelity Reviews: Leaders and coaches must conduct walkthrough observations using standard fidelity checklists (e.g., twice per eight-week cycle) to ensure the intervention program is delivered as designed.

Phase B: Establishing Progress Monitoring and Graphing Cadences

Data collection must be routine, objective and visual.

Monitoring Cadence: Develop a progress monitoring plan for Tier 2 and Tier 3 students consistent with the KyMTSS Implementation Guide.

Visual Graphing: Graph every data point against a clear goal line and a calculated trend line in Infinite Campus or the district's intervention tracking system.

Written Decision Rules: Ensure teams operate from agreed-upon decision rules after collecting six to eight data points.

Student Response Trend

This three-column table outlines decision rules for responding to student progress monitoring data based on six to eight data points:

Student Response Trend	Graphed Visual Pattern	Required Leadership and Team Action
Positive Response	Trend line is steeper than the goal line.	**Continue or Fade:** If target is met, consider setting a more ambitious goal, addressing an additional skill area or fading support back to Tier 1.
Questionable Response	Trend line is parallel to goal line; gap stops widening or slows down, but is not closing.	**Check Confounding Factors First:** Evaluate delivery, fidelity, attendance or student engagement. If confounds exist, correct integrity and collect four more data points. If no confounds exist, increase intensity.
Poor Response	Trend line is flat or falling below goal line; gap is widening.	**Change Intervention Form:** Check fidelity and fit. Initiate a new MIP form in Infinite Campus to document adjustments (e.g., reduce group size, change interventionist, alter instructional strategy or re-evaluate root cause).

Whole-Child MTSS Check: Before labeling a response as “poor,” verify co-occurring factors. If a student has active behavioral plans, attendance issues or basic needs concerns, coordinate across support teams – math performance issues may reflect broader environmental or fidelity barriers.

Phase C: Sustaining Two-Way Family Partnerships

KRS 158.8402 requires active family inclusion that goes beyond compliance checkboxes.

Meaningful Teaming: Maintain the mandatory team structure – parent/guardian, general education teacher, local educational agency representative (knowledgeable in math curriculum/resources) and specialized certified staff (English learner/special education, where applicable).

At-Home Practice Kits: When possible, provide families with concrete materials and plain-language guides (e.g., take-home number line cards, ten-frames or decomposition dice games) that match the targeted intervention skill. The Kentucky Department of Education (KDE) will have a resource for families that will debut in January.

Quarterly Reporting Cadence: Provide written quarterly progress updates – integrated into report cards or via standalone Infinite Campus Personal Learning Plan (PLP) progress letters – on scheduled district reporting dates.

3. District and School Administrative Checklist for MIP Management

Infinite Campus Documentation: If using the KDE Mathematics Improvement Plan template, log all active Mathematics Improvement Plans in the Infinite Campus PLP module to allow data tracking and seamless transfer across schools.

Intervention Change Protocols: Verify that a new MIP form is generated whenever an intervention program or tier delivery structure changes, preserving a clean historical data trail.

Systemic Tier 1 Review: If screening data shows more than 20% of a cohort needing MIPs, direct instructional coaches to evaluate and strengthen Tier 1 core instruction and high-quality instructional resource implementation rather than relying solely on individual interventions.

Special Populations Integration: Confirm that students with individualized education programs, 504 plans or program services plans only have a separate MIP if their existing plan does not already cover mathematics instruction.

Equitable Access Audits: Verify that intervention schedules do not pull students from critical core subjects, that materials are aligned to student needs and that parent communication considers native language.