NEW CLASSROOMS

Promoting Instructional Coherence Through a High-Quality Rubric for Supplemental Math Materials

Instructional coherence—when core instruction, interventions, assessments, and educator supports work together to reinforce the same academic goals—is essential for helping students make steady progress in mathematics.

A key part of that coherence is ensuring that core and supplemental materials align to a shared set of expectations and learning trajectories for success. When these components coalesce, learning builds purposefully toward grade-level proficiency; when they are not, learning is stifled and students fall behind.

Many states have established rigorous review processes to ensure districts adopt grade-level high-quality core instructional materials. But because math is inherently cumulative, unfinished learning from prior years can prevent students from succeeding on grade-level content (National Mathematics Advisory Panel 2008). Without targeted, high-quality supplemental support, those foundational skill gaps persist—and often widen—even with strong core instruction.

Currently, local education agencies (LEAs) are often left to navigate a fragmented marketplace for supplemental materials without support (CEMD 2024). These materials rarely integrate with core curriculum, frequently resulting in the adoption of patchwork interventions that use inconsistent models and tools which misalign learning progressions and fail to connect directly to grade-level expectations (CCSSO 2026).

A state-developed supplemental rubric, paired with an annual evaluation of supplemental math materials, is a powerful lever to address this challenge. Clear, consistent criteria will support LEAs to identify high-quality, well-aligned supplementary materials, support coherence across grade levels, and maximize local and state investments in core instructional materials.

Key Criteria for Rubric Design

Drawing on recent research from TNTP and New Classrooms on the importance of the precise identification of pre-grade predecessor skills and grade-level readiness for math success, the following criteria outline key design principles for a high-quality supplemental math rubric. These principles are not exhaustive, but should be considered essential for any statewide effort.

Principle	Criteria	Recommended State Rubric Language
Integration with Core Instruction and Materials	*The rubric should assess whether materials are designed to integrate with and extend core math instruction to create a seamless student learning experience.*	• Supplemental materials are intentionally designed to integrate with core instruction by supporting grade-level expectations while addressing the specific prerequisite skills students need to access and master that instruction. • Supplemental materials clearly demonstrate how skill-based lessons align to and support core materials to ensure they do not function as isolated or parallel design and programming.
Alignment of Standards and Multi-Grade Learning Progressions	*The rubric should assess whether materials target the right skills at the right time and support learning across multiple grade levels toward mastery of grade-level standards.*	• Supplemental materials are 100% aligned to a defined subset of the state's mathematics standards. • Supplemental materials provide a clear instructional rationale for how skills are sequenced within grades (horizontal alignment) and across grades (vertical alignment). These coherent connections must address prerequisite gaps from prior years. • Supplemental materials are organized around coherent learning progressions that should span multiple grade levels to target learning gaps. • Each lesson or activity is explicitly mapped to the grade-level skill it supports and the pre-grade skills it expects to be mastered based on diagnostic results. • Progression rationale is embedded in the design of each lesson, targeted to a specific skill gap rather than presented as a high-level claim.
Creation of Individualized Learning Paths	*The rubric should assess whether materials create individualized skill-level learning paths based on a diagnostic assessment and guide educators to provide targeted interventions.*	• Supplemental materials include a diagnostic assessment that measures student mastery of discrete pre-grade and grade-level math skills aligned to state standards. • Supplemental materials are designed to prioritize identification of key predecessor skills from prior grades and provide structured pathways for addressing those gaps while maintaining focus on grade level outcomes. • Supplemental materials include clearly defined skill-level learning paths based on diagnostic results that expose students to content aligned to their current level of readiness. These paths are intentionally connected to grade-level learning expectations and integrated with core materials. • Supplemental materials provide clear guidance for placing students into appropriate instructional starting points based on diagnostic results, including recommendations that account for both pre-grade and grade-level skill gaps. Entry points are tied to specific skills rather than generalized performance levels. • Supplemental materials provide explicit, actionable guidance for educators on how to scaffold instruction, deliver targeted interventions, and offer enrichment based on student needs. Guidance is tied to specific skills and instructional decisions rather than generic differentiation strategies.

Principle	Criteria	Recommended State Rubric Language
Coherent Assessment and Data Systems	*The rubric should assess whether materials use ongoing assessment and data to measure skill mastery, guide instruction, and empower students to track their own progress.*	• Supplemental materials include a coherent system of diagnostic and formative assessments that measure student mastery of discrete pre-grade and grade-level math skills aligned to state standards. Assessment information must be used to inform instructional adjustments and to track progress along defined learning progressions that align to core materials and instruction. • Supplemental materials generate real-time, actionable data that enables educators to understand which pre-grade and grade-level skills students know and are ready to learn next on their individualized learning path to grade-level proficiency. Data is presented in a way that directly supports instructional decision-making. • Supplemental materials include student-facing progress tools that allow learners to see which skills they have mastered, which skills they are working toward, and how those skills connect to grade-level expectations and their individualized learning path.
Evidence of Impact	*The rubric should assess whether materials demonstrate a commitment to evidence-based results, ongoing evaluation, and shared responsibility for student progress toward grade-level proficiency.*	• Supplemental materials demonstrate a rationale for effectiveness through evidence of accelerated student learning toward mastery than is typical without the intervention. • Supplemental materials provide evidence that, when used as designed, they produce stronger results toward grade-level mastery than would be expected under typical instructional conditions. Evidence of student learning is grounded in research, pilot outcomes, and/or implementation data and reflects consistent, meaningful gains leading to grade-level mastery.

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References

CCSSO (2026). Making Sense of Instructional Coherence at the State Level. https://learning.ccsso.org/making-sense-of-instructional-coherence

The Center for Education Market Dynamics (2024). Beyond the Core: National Trends in District Selection of K-5 Supplemental Math Products. https://www.cemd.org/beyond-the-core-national-trends-in-district-selection-of-k-5-supplemental-math-products/

National Mathematics Advisory Panel (2008). Final Report of the Mathematics Advisory Panel. https://files.eric.ed.gov/fulltext/ED500486.pdf

TNTP (2025). Unlocking Algebra: What the Data Tells Us About Helping Students Catch Up. https://newclassrooms.org/unlocking-algebra-what-the-data-tells-us-about-helping-students-catch-up/