Planning Standards-Aligned Instruction Within a Multi-Tiered System of Supports Algebra Example

College- and Career-Ready Standard Addressed

Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. (CCSS HSA.REI.3)

Core Instruction

- 1. Implement a standards-aligned mathematics program that includes instruction in algebra and underlying skills.
- 2. Provide explicit instruction in strategies for solving linear equations and inequalities in one variable where the missing information appears in different positions in the equation.
- 3. Incorporate peer-mediated and independent practice opportunities, with scaffolds of problem-solving procedures faded over time, to foster skill fluency, maintenance, and generalization to new problem types.
- 4. Incorporate class-wide motivation strategies to promote engagement and on-task behavior, with individualized supports for students who need them.
- 5. Periodically assess learning of all students in the class using a valid, reliable screening tool to determine the effectiveness of core instruction, and identify students in need of additional supports.¹

Secondary Intervention

- 1. Use companion evidence-based materials that align with the core program (if available) or an evidence-based intervention program that addresses algebra (e.g., Academy of MATH).²
- 2. Provide explicit preteaching of core content as a supplement to core instruction.
- 3. Provide explicit instruction in and practice with underlying skills (e.g., solving equations in which missing information occurs in different positions in a number sentence).
- 4. Provide small-group instruction with multiple response formats and explicit corrective feedback.
- Incorporate additional small-group or individual behavior strategies targeted to individual needs in engagement and motivation.
- 6. Collect progress monitoring data at least one or two times per month using a valid, reliable tool.³

Intensive Intervention

- 1. Use progress monitoring and error analysis data to identify skill deficits and necessary adaptations to the secondary intervention.
- 2. Provide explicit instruction in foundational skills (broken into smaller steps), such as communicating about coefficients represented by letters and solving equations with unknowns in different positions in the number sentence. Teach skills to mastery before moving on and check for retention. ⁴
- 3. Prioritize standards and spend extended time providing explicit instruction in those areas.
- 4. Provide multiple and varied opportunities for learning and practice (e.g., using manipulatives, visuals, or written procedures) with explicit corrective feedback.
- Incorporate additional behavior strategies targeted to individual needs in attention, self-regulation, learning or organizational skills, or social skills.
- Collect progress monitoring data weekly, at a level that is sensitive to change, and adjust instruction as needed.⁵

Alternate Achievement Standards⁶

- 1. Provide instruction appropriate to a student's level of cognitive and symbolic functioning, using precise, simple language and pictures, as needed.
- 2. Provide explicit instruction in foundational skills that underlie the standard (e.g., basic computation, concepts of equality and inequality, and missing information in a number sentence).
- 3. Use additional individualized behavior and motivation strategies, including functional communication and independence.
- 4. Collect progress monitoring data on accuracy, fluency, and level of independence.
- 5. Incorporate assistive technology as needed to teach and assess skills.



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INTENSIVE INTERVENTION

at American Institutes for Research

- ^{1.} For reviews of academic screening tools, see the Screening Tools Chart produced by the Center on Response to Intervention (http://www.rti4success.org/resources/tools-charts/screening tools-chart). Although mastery measurement may track progress in specific skills, such as solving linear equations with coefficients represented by letters, using a screening measure will provide a broader assessment of generalized progress in the mathematics curriculum.
- ^{2.} All noted programs are for illustrative purposes only; the National Center on Intensive Intervention (NCII) does not endorse products. For reviews of academic interventions, see the Academic Intervention Tools Chart produced by NCII (http://www.intensiveintervention.org/chart/instructional-intervention-tools).
- ^{3.} Progress monitoring data will determine whether secondary intervention is sufficient or a student needs more intensive supports. For reviews of progress monitoring tools, see the Progress Monitoring General Outcome Measures Tools Chart produced by NCII (http://www.intensiveintervention.org/chart/progress-monitoring).
- ^{4.} For more information on identifying relevant foundational skills to guide individualized intervention, see Powell, S. R., & Fuchs, L. S. (2013). Reaching the mountaintop: Addressing the Common Core Standards in Mathematics for students with mathematics difficulties. *Learning Disabilities Research and Practice*, 28(1), 28–37.
- ^{5.} Frequent progress monitoring will allow for timely adaptations, as needed. Note that progress monitoring must occur at a student's instructional level to be sensitive to growth in skills.
- ^{6.} For more information on these strategies, see Courtade-Little, G., & Browder, D. M. (2005). *Aligning IEPs to academic standards for students with moderate and severe disabilities.* Verona, WI: Attainment Company.