

# Closing the Math Gap:

## An Actionable Guide for Effective Mathematics Intervention at the Secondary Level

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Leverage the MTSS framework to help your secondary students accelerate their mathematics growth.



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# Transform Research into Real-World Results

This handbook (Part 3 of the Closing the Gap series) provides focused, practical guidance for implementing effective secondary math intervention systems for Grades 6–12.

**Part 1** established the system-wide framework for closing learning gaps.

**Part 2** focused on literacy intervention implementation at the secondary level.

**Part 3** extends that work by addressing the unique instructional, structural, and data-driven demands of secondary mathematics intervention, where foundational gaps often surface most clearly and carry the greatest long-term impact.

National mathematics performance data indicates that many secondary students are not meeting proficiency expectations and are entering high school without the foundational skills required for success in algebra and advanced coursework (National Center for Education Statistics, 2024). Evidence-based math intervention models provide a clear path forward by emphasizing explicit instruction, consistent instructional routines, and the strategic use of student data to accelerate learning (National Center on Intensive Intervention, 2016).

In short, this handbook is designed to help districts:

- Design schedules, staffing models, and placement systems that support effective math intervention.
- Strengthen instructional fidelity and consistency through coaching and structured routines.
- Support teachers in delivering explicit, evidence-based math intervention.
- Align math intervention systems to MTSS frameworks established in the Closing the Gap series.
- Apply implementation tools found in the Math Intervention Playbook (Appendix).

Math intervention is not simply about adding instructional time or temporary, isolated support. It is about building coordinated systems that target prerequisite skills, use explicit instruction, integrate purposeful supplemental supports, and respond to student data in ways that accelerate learning and improve long-term outcomes (NCII, 2016).



Scan the QR code or visit [mheducation.com/closingthegap](https://mheducation.com/closingthegap) to explore additional strategies and resources for closing learning gaps.

# Why Math Intervention Must Be a Priority

Secondary math intervention is no longer an optional support strategy. It is a critical system response to persistent achievement gaps, declining national performance, and increasing academic demands placed on students in Grades 6–12.

## The National Context

National assessment data shows that fewer than one-third of eighth-grade students perform at or above proficiency in mathematics, and average performance has declined compared to pre-pandemic levels (National Center for Education Statistics, 2024).

The Nation's Report Card highlights that:

- A large percentage of students enter high school without mastery of grade-level mathematics standards.
- Achievement gaps persist across student groups.
- Many students demonstrate limited readiness for algebra coursework.

## Why This Matters for Secondary Systems

Mathematics learning builds hierarchically. When students have not yet mastered foundational skills in middle school, those gaps compound over time and limit access to advanced coursework (National Mathematics Advisory Panel, 2008).

Foundational competencies identified as critical for long-term success include:



Number sense and operations



Proportional reasoning



Fractions and rational number understanding



Algebra-readiness skills

When these skills are still developing, students may experience difficulty not only in algebra but across science, career and technical education, and college-readiness pathways. In secondary settings, intervention must therefore focus on strengthening prerequisite skills while driving toward grade-level expectations.

# Intervention as an Acceleration Strategy—Not Remediation

Effective math intervention accelerates learning by targeting prerequisite skills through explicit instruction, sufficient instructional time, and systematic progress monitoring (National Center on Intensive Intervention, 2016).

Acceleration requires intentional design. This approach shifts intervention from a reactive model (implemented as support after failure) to a proactive system that:



Identifies learning gaps early.



Provides targeted instruction aligned to student needs.



Supports students while maintaining access to grade-level coursework.



Uses data to adjust instruction and placement.

Well-designed intervention systems combine structured teacher-led instruction with aligned supplemental supports to reinforce learning and monitor growth.





## Preparing for Implementation

This guide focuses not only on *what* works in math intervention, but on *how* schools can implement these practices with consistency and fidelity through:

- ✓ **Instructional routines**
- ✓ **Scheduling models**
- ✓ **Program alignment**
- ✓ **Coaching supports**
- ✓ **Technology integration**
- ✓ **Data-informed decision-making**

These implementation elements are further supported through tools and resources found in the Math Intervention Playbook (Appendix).

### Playbook Connection

**Appendix A** includes a Leadership and System Readiness Check that helps teams evaluate whether protected time, placement criteria, and staffing structures are in place to support effective math intervention implementation

# Common Misconceptions About Secondary Math Intervention

Misconceptions about math intervention often lead schools to adopt well-intentioned practices that do not produce meaningful or sustained student growth. Left unaddressed, these beliefs weaken implementation and limit acceleration. Addressing these misunderstandings is essential for building effective intervention systems that truly accelerate learning.

## **Misconception 1:**

Math intervention is mainly independent practice or extra help time.

Research in mathematics learning demonstrates that students with unfinished learning benefit most from structured, teacher-led instruction that explicitly models problem-solving strategies, provides guided practice, and delivers immediate corrective feedback. Independent practice alone is insufficient for accelerating learning gaps.

Cognitive science research shows that mathematical problem-solving relies heavily on background knowledge and worked examples (Sweller, Clark, & Kirschner, 2010). Similarly, math intervention guidance emphasizes that explicit instruction, scaffolded practice, cumulative review, and systematic instructional routines are core components of effective intervention programs (National Center on Intensive Intervention, 2016).

When intervention is treated as “extra work time” or homework completion, schools miss the opportunity to accelerate learning. Effective intervention classrooms include:

- Daily teacher modeling.
- Structured lesson routines.
- Guided practice cycles.
- Immediate feedback.
- Intentional cumulative review.

This level of structure is essential for foundational skill development and for preparing students to reengage successfully with grade-level coursework.

**Misconception 2:**

Technology alone can close learning gaps.

Federal education guidance emphasizes that instructional technology is most effective when intentionally integrated into teacher-led instructional models that include explicit instruction, targeted practice, and data-informed decision-making (Office of Educational Technology, 2017).

Technology should be used to:

- Support personalized learning pathways.
- Strengthen instructional design.
- Improve the use of student data.
- Enhance teaching practices.

Rather than functioning as stand-alone solutions, digital tools are most impactful when they serve as instructional supports within structured intervention systems.

The National Center on Intensive Intervention further emphasizes that effective math intervention systems integrate instructional tools, progress-monitoring data, and teacher-led instruction to guide individualized student support (NCII, 2016).

When embedded within MTSS intervention frameworks, technology can:

- Improve diagnostic placement accuracy.
- Support individualized supplemental practice.
- Provide actionable progress-monitoring data.
- Strengthen instructional decision-making.

Technology is most powerful when it reinforces explicit instruction, extends targeted practice, and provides real-time data to inform instructional adjustments.

This creates a natural role for adaptive learning platforms to function as supplemental and intervention supports rather than replacements for instruction, strengthening blended models that combine teacher expertise with technology-enabled personalization.

**Misconception 3:**

Reteaching grade-level lessons is sufficient for struggling students.

Students who continue to need additional instructional support in mathematics often have prerequisite skills that require explicit attention before they can fully engage with grade-level content. Simply repeating current coursework does not address underlying skill needs.

The National Mathematics Advisory Panel identified foundational competencies, including number sense, fractions, proportional reasoning, and algebra readiness skills, as critical predictors of long-term mathematics success (National Mathematics Advisory Panel, 2008).

Similarly, math intervention guidance emphasizes that effective intervention targets prerequisite skill development rather than surface-level content repetition (NCII, 2016).

Effective intervention systems are designed to:

- Align intervention content with future course demands.
- Accelerate readiness for algebra and advanced coursework.
- Diagnose foundational skill gaps.
- Provide targeted prerequisite instruction.

Closing learning gaps requires rebuilding essential foundations while maintaining progress toward grade-level expectations.

**Playbook Connection**

[Appendix C](#) provides instructional look fors to guide coaching conversations and ensure explicit instruction, structured routines, and guided practice are implemented consistently.



# What Makes Secondary Math Intervention Different

Secondary math intervention requires a different implementation approach than elementary models. Secondary schools must address cumulative learning gaps, algebra-readiness demands, and structural scheduling constraints while maintaining access to grade-level coursework. In Grades 6–12, unfinished learning is more visible, more consequential, and more tightly connected to graduation pathways.

## Cumulative Learning and Foundational Skill Gaps

Mathematics learning is cumulative. Students who enter middle and high school without mastery of foundational skills experience compounding learning gaps that limit access to grade-level instruction (National Mathematics Advisory Panel, 2008).

Research identifies the following skill areas as essential for long-term success:



**Number sense and operations**



**Fractions and rational number understanding**



**Proportional reasoning**



**Algebra-readiness skills**

When these foundational skills are weak, students struggle across mathematics courses and related academic pathways. At the secondary level, these gaps cannot be deferred. They must be systematically addressed while students continue progressing through credit-bearing coursework.

## Algebra Readiness as a System Priority

Algebra is a critical academic gateway. Students who are not prepared for algebra are more likely to experience course failure and reduced access to advanced coursework (NMAP, 2008). Because algebra builds directly on number sense, proportional reasoning, and other foundational competencies, gaps in prerequisite skills quickly surface once coursework becomes abstract and conceptually demanding. Strengthening these skills is not remediation; it is preparation for access.

Students benefit from explicit instruction and structured problem-solving approaches that build conceptual understanding and procedural fluency before and during algebra coursework (What Works Clearinghouse, 2014). For secondary systems, this means algebra readiness must be addressed proactively. Effective intervention does not wait for course failure. It systematically rebuilds prerequisite skills while supporting students as they move toward grade-level expectations.

Coordinated intervention and supplemental supports aligned to both current performance and future course demands are essential to making this possible.



## Instructional Design Challenges at the Secondary Level

Secondary math intervention classrooms often include students with widely varying skill needs. Effective secondary intervention requires explicit instruction, targeted skill grouping, sufficient instructional time, and frequent progress monitoring (National Center on Intensive Intervention, 2016).

Intervention and supplemental supports should:

- ☒ Scaffold problem-solving.
- ☒ Use visual representations.
- ☒ Have systematic and explicit instruction.
- ☒ Provide ongoing assessment and mastery checks.

These design principles reinforce the need for structured intervention programs that can address multiple entry points and skill levels in secondary settings.

## Structural and Scheduling Constraints

Unlike elementary settings, secondary schools must balance intervention with:

- Credit-bearing course requirements
- Graduation pathways
- Staffing limitations
- Master schedule constraints

Effective implementation requires leadership-level planning to protect intervention time and ensure consistent student access to support (NCII, 2016).

When intervention is treated as an add-on rather than a core instructional priority, student participation and instructional consistency decline. Intervention must be embedded within the master schedule as an integrated component of the instructional program, not positioned as optional support.

## Implementation Takeaways for Leaders and Coaches

High-impact secondary math intervention systems include:



**Protected daily intervention time.**



**Diagnostic placement processes.**



**Explicit instructional routines.**



**Coordinated Tier 1 and intervention alignment.**



**Data systems that guide instructional decisions.**

When these elements are in place, schools are better positioned to implement supplemental and adaptive tools effectively and scale successful practices across grade levels within a coherent MTSS framework.

### Playbook Connection

[Appendix F](#) translates secondary scheduling principles into practical time allocations and tier-specific models for structured intervention programs.

# Non-Negotiables for Effective Secondary Math Intervention

Successful math intervention is not defined by the program alone. It depends on system conditions that allow instruction to be delivered consistently and with fidelity. Research on math intervention design and implementation identifies several core components that must be present for intervention to produce meaningful student growth.

## Four Suggested Non-Negotiables of Math Intervention Implementation

| Suggested Non-Negotiables                                                                                                                                                                                                                    | What This Might Look Like in Practice                                                         | Admin Look-Fors                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Protected Instructional Time</b> <ul style="list-style-type: none"><li>Daily intervention blocks</li><li>Minimal schedule disruption</li><li>Priority placement within the master schedule</li></ul>                                      | Intervention time that allows for explicit instruction, guided practice, and feedback         | Intervention embedded within the master schedule as a protected priority |
| <b>Explicit Instructional Routines</b> <ul style="list-style-type: none"><li>Clear modeling of problem-solving strategies</li><li>Guided practice with feedback</li><li>Structured lesson routines</li><li>Cumulative skill review</li></ul> | Modeling, guided practice, and corrective feedback consistently embedded in daily instruction | Teachers implementing structured routines with fidelity                  |

| Suggested Non-Negotiables                                                                                                                                                                                                                              | What This Might Look Like in Practice                                  | Admin Look-Fors                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <p><b>Targeted Student Placement</b></p> <ul style="list-style-type: none"> <li>• Use of diagnostic data</li> <li>• Skill-based placement decisions</li> <li>• Flexible grouping structures</li> <li>• Regular placement review</li> </ul>             | Students grouped by demonstrated skill need rather than by grade level | MTSS placement protocols implemented consistently across teams           |
| <p><b>Ongoing Progress Monitoring</b></p> <ul style="list-style-type: none"> <li>• Scheduled data review cycles</li> <li>• Clear progress benchmarks</li> <li>• Instructional response protocols</li> <li>• Documentation of student growth</li> </ul> | Regular data review tied to instructional adjustments                  | Scheduled data meetings that drive placement and instructional decisions |

*(Note—the non-negotiables above reflect widely accepted research-based principles for effective mathematics intervention design and MTSS implementation.)*

**Playbook Connection**

[Appendix A](#) offers a system readiness checklist aligned to these non-negotiables, helping leadership teams assess implementation fidelity and identify priority adjustments.



# Profiles of Math Learners Requiring Targeted Support (Grades 6–12)

Effective math intervention starts with understanding where students need support and matching instruction to the specific competencies they are ready to develop. In secondary schools, students enter intervention with varied learning profiles. Some require foundational skill development; others benefit from deeper conceptual connections; and others need targeted algebra readiness or structured supplemental reinforcement.

Strong intervention systems account for these differences by providing multiple instructional pathways rather than relying on a one-size-fits-all approach. These profiles are instructional entry points, not labels. They highlight opportunities for acceleration and growth.

*(Note—this section reflects research on skill-based intervention design, conceptual learning through multiple representations, and structured problem-solving instruction.)*

## Common Secondary Math Intervention Student Profiles Implementation

### Profile 1: Strengthening Foundational Skills

Students in this profile are building essential competencies that support access to grade-level mathematics.

**Student characteristics:**

- Weak number sense and basic computation
- Difficulty with whole-number operations
- Limited math fluency

**Instructional focus:**

- Explicit skills instruction
- Frequent guided practice
- Cumulative review

**Implementation fit:**

- Tier 2 or Tier 3 intervention
- Small-group instruction
- Structured lesson routines

## Profile 2: Deepening Conceptual Understanding

Students in this profile demonstrate procedural knowledge and are strengthening conceptual connections.

### Student characteristics:

- Difficulty with fractions and rational numbers
- Weak conceptual understanding
- Procedural knowledge without meaning

### Instructional focus:

- Visual and multiple representations
- Conceptual modeling
- Structured practice

### Implementation fit:

- Tier 2 intervention
- Targeted small-group instruction
- Representation-based instruction

## Profile 3: Building Algebra Readiness

Students in this profile are preparing to engage successfully in algebra and higher-level mathematics.

### Student characteristics:

- Difficulty with problem-solving
- Weak proportional reasoning
- Limited algebraic thinking

### Instructional focus:

- Structured problem-solving routines
- Schema-based instruction
- Guided practice

### Implementation fit:

- Pre-algebra or Algebra I intervention support
- Targeted skill acceleration

## Profile 4: Extending and Reinforcing Learning

Students in this profile benefit from structured reinforcement and personalized practice to solidify mastery.

### Student characteristics:

- Partial skill mastery
- Inconsistent performance
- Need for personalized practice

### Instructional focus:

- Adaptive practice pathways
- Diagnostic-based skill targeting
- Progress monitoring

### Implementation fit:

- Tier 2 supplemental instruction
- Blended intervention models
- Technology-supported learning

This profile reflects the role of adaptive tools when intentionally embedded within explicit, teacher-led intervention systems.

### Playbook Connection

[Appendix B](#) includes Placement and Instruction Action Cards that align directly to these learner profiles and guide instructional response and review timelines.

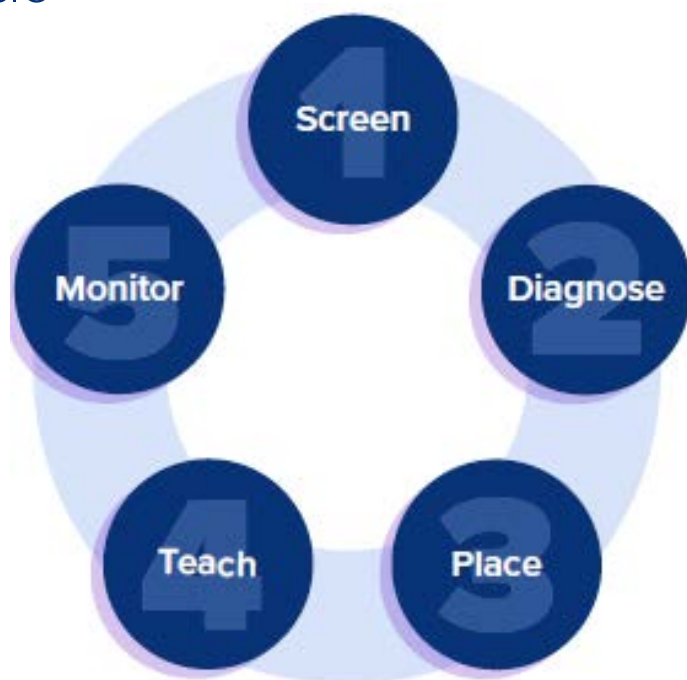


# Using Data to Guide Math Intervention Decisions

Effective math intervention systems rely on data to guide instructional decisions, not simply to document performance. Schools that successfully accelerate learning gaps use consistent data routines to support student placement, instructional planning, and ongoing adjustments. Data must function as a decision-making tool, not a compliance requirement.

## The Math Intervention Data Cycle

Successful intervention systems follow a continuous cycle that connects assessment, instruction, and progress monitoring.



- 1. Screen:** Universal screening identifies students who may benefit from Tier 2 or Tier 3 support.

### Implementation focus:

- Use benchmark assessments and common performance measures.
- Identify students at risk early.
- Review screening data at the start of each term.

- 2. Diagnose:** Diagnostic tools help determine specific skill gaps and learning needs to support accurate instructional placement.

### Implementation focus:

- Identify prerequisite skill weaknesses.
- Use multiple data sources.
- Avoid relying on course grades alone.
- Leverage diagnostic or adaptive tools to generate individualized skill profiles.

- 3. Place:** Placement decisions should match student needs and data to ensure intervention time is focused on the skills students most need to develop.

**Implementation focus:**

- Use diagnostic data to guide grouping.
- Assign students to Tier 2 or Tier 3 supports.
- Review placement decisions regularly.

- 4. Teach:** Instruction should be aligned to identified skill needs and adjusted based on student progress.

**Implementation focus:**

- Align instruction to targeted skill gaps.
- Use explicit lesson routines.
- Incorporate targeted practice and feedback.
- Integrate supplemental tools to reinforce targeted skills and extend learning time.

- 5. Monitor:** Progress monitoring ensures that instruction is producing meaningful growth and helps to prevent the gaps from widening.

**Implementation focus:**

- Review progress data on a regular schedule.
- Adjust instruction and grouping as needed.
- Increase instructional intensity when growth is insufficient.
- Technology-based progress data can support more frequent monitoring and faster instructional adjustments.

*(Note—this data cycle reflects widely accepted research-based practices in math intervention and MTSS implementation that emphasize early identification, diagnostic placement, targeted instruction, and continuous progress monitoring.)*

## How Supplemental Tools Strengthen the Data Cycle

When used intentionally, supplemental digital platforms strengthen math intervention systems by supporting diagnostic placement, personalized practice, and ongoing progress monitoring. These tools are most effective when embedded within teacher-led instruction and MTSS decision-making processes.

Supplemental supports do not replace explicit instruction. Instead, they reinforce targeted skills, provide immediate feedback, and generate actionable data that informs instructional adjustments and extends impact.

In structured intervention settings, adaptive and supplemental tools also support classroom flow. While the teacher delivers modeling, guided instruction, or targeted small-group support, other students can engage in individualized, standards-aligned practice that continues skill development without interruption. The combination of personalization and real-time feedback allows students to remain productively engaged and progress while the teacher prioritizes direct instruction.

This integrated approach positions adaptive tools as part of a coordinated intervention system rather than as stand-alone solutions.

## Implementation Takeaways

Effective data use in math intervention includes:



**Clear assessment schedules**



**Defined team roles**



**Regular data review meetings**



**Documented instructional adjustments**



**Communication between Tier 1 and intervention teams**

When data systems are implemented well, schools can respond to student needs more efficiently and maintain momentum toward improved student outcomes. In strong systems, data conversations lead directly to instructional action.

### Playbook Connection

[Appendix D](#) provides progress-monitoring and exit tools that support structured data review cycles and ensure instructional adjustments are tied to student growth evidence.

# Aligning Intervention and Supplemental Tools to Close Math Learning Gaps

Closing math learning gaps requires targeted intervention and supplemental supports aligned to clearly defined student needs. Effective systems combine explicit instruction, structured practice, and real-time data to strengthen foundational skills, support grade-level access, and build long-term mathematical readiness. Instructional tools should be selected based on demonstrated skill priorities, implementation capacity, and alignment to MTSS structures.

McGraw Hill math programs are designed to function together within MTSS frameworks to close foundational gaps, strengthen conceptual understanding, and sustain progress across Grades 6–12.

## *ALEKS®* as a System-Level Data Partner

*ALEKS* provides continuous formative assessment data that highlights student progress, skill mastery, and targeted groupings. When integrated with *Essentials for Algebra®* or *Corrective Mathematics®*, *ALEKS*:

- Reinforces explicitly taught skills.
- Identifies emerging skill needs in real time.
- Supports flexible grouping and placement.
- Provides progress visibility between assessment cycles.
- Strengthens instructional coherence.



# Intervention Programs That Close Foundational Gaps



*Essentials for Algebra*® helps students close foundational gaps and build the skills they need to succeed in Algebra I. Designed for middle and high school learners, the program provides clear, step-by-step instruction in the prerequisite skills required for algebra success.

## Lessons include:



Teacher modeling



Guided practice



Built-in assessment to ensure mastery

This structured design reinforces both conceptual understanding and procedural fluency, helping students transition into Algebra I with stronger skill confidence and retention.

## Implementation fit:



Algebra readiness intervention



Tier 2 or Tier 3 support



Pre-algebra or concurrent algebra support



# ALEKS®

ALEKS® supports math intervention and supplemental instruction by identifying where students have instructional gaps—determining what they know and what they are ready to learn next. Through real-time diagnostics and ongoing progress monitoring, ALEKS provides targeted practice that aligns to intervention goals and supports sustained growth and mastery.

**When used as part of a teacher-led intervention system, ALEKS helps:**

-  Identify prerequisite skill gaps that may not be visible through course performance alone.
-  Support individualized practice aligned to instructional priorities.
-  Monitor progress and inform instructional adjustments.
-  Extend learning opportunities beyond direct instruction time.

ALEKS strengthens intervention systems by providing adaptive reinforcement that complements explicit instruction and supports data-informed decision-making.

**Implementation fit:**

-  Tier 1 and Tier 2 support
-  Blended intervention models
-  Personalized practice aligned to intervention instruction
-  In-class and extended learning use

**Effective gap-closing systems must:**

-  Match instructional tools to student learning needs.
-  Use explicit, teacher-led intervention for foundational gaps.
-  Integrate adaptive tools to extend and personalize learning.
-  Rely on data to guide placement, instruction, and adjustments.
-  Focus on preparing students for success in Algebra I and beyond.

When intervention and supplemental tools operate within a coherent MTSS framework, schools create sustainable pathways for acceleration rather than temporary remediation.



## Corrective Mathematics

*SRA Corrective Mathematics*® helps students catch up fast with research-proven, step-by-step instruction. The program closes critical skill gaps for middle and high school students through targeted, teacher-led instruction in essential math concepts.

**This intensive intervention focuses on:**



Computation



Problem-solving



Foundational reasoning

Through explicit, teacher-led instruction and systematic practice, students rebuild essential skills that support grade-level access and algebra readiness.

**Implementation fit:**



Small-group, teacher-led instruction



Tier 2 and Tier 3 intensive support



Foundational skills intervention

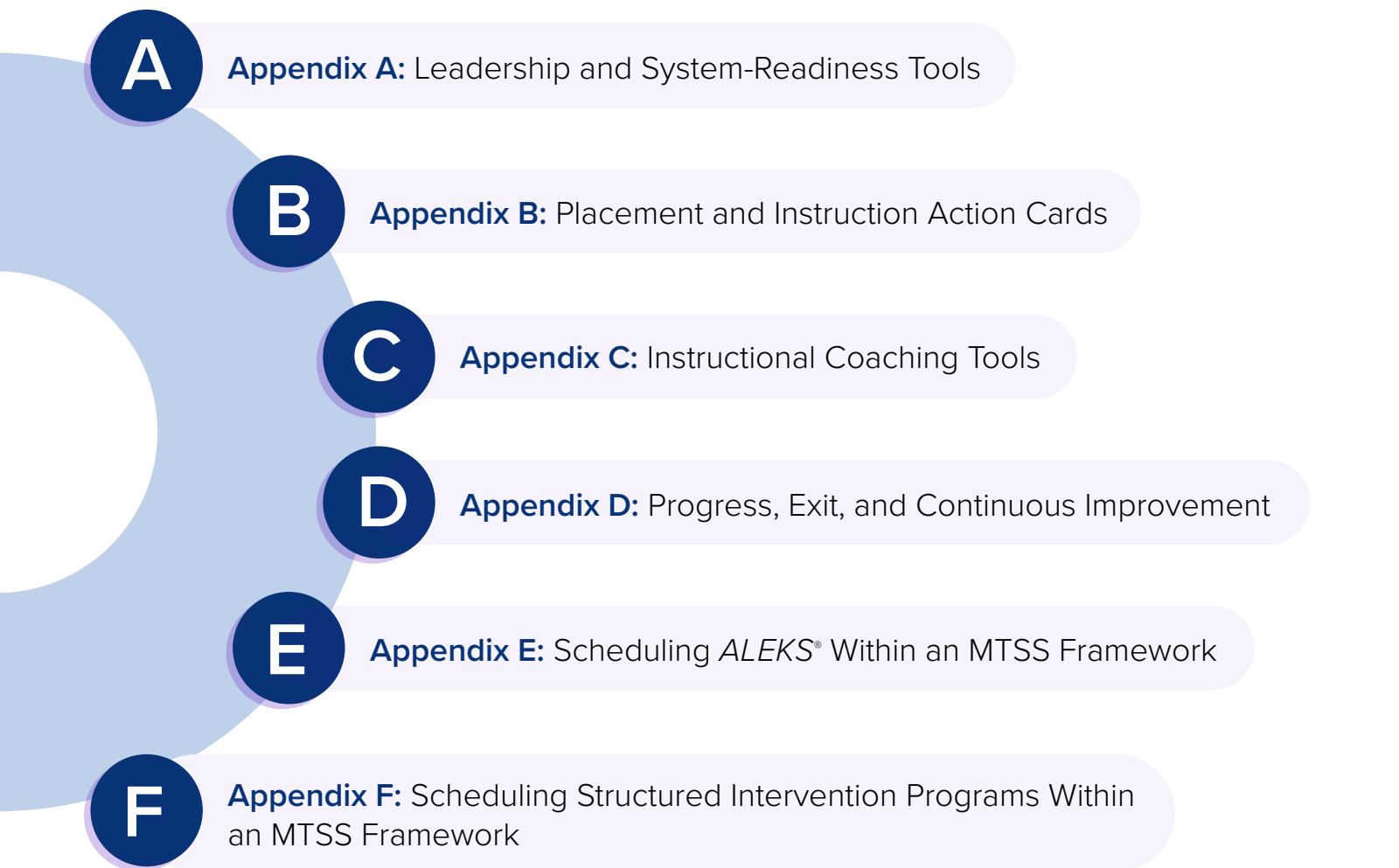
### Playbook Connection

[Appendices E and F](#) provide scheduling guidance for both adaptive and structured intervention programs, ensuring coordinated implementation within a coherent MTSS framework.

# Mathematics Intervention Playbook

## Practical Tools to Support Effective Math Intervention Implementation

The Math Intervention Playbook provides ready-to-use resources to support administrators, coaches, and teachers in implementing math intervention and supplemental supports with consistency and clarity. It translates research into actionable guidance for coherent MTSS implementation across Grades 6–12 and can be used during planning, MTSS meetings, instructional delivery, coaching cycles, and progress reviews.

**A**

**Appendix A:** Leadership and System-Readiness Tools

**B**

**Appendix B:** Placement and Instruction Action Cards

**C**

**Appendix C:** Instructional Coaching Tools

**D**

**Appendix D:** Progress, Exit, and Continuous Improvement

**E**

**Appendix E:** Scheduling ALEKS® Within an MTSS Framework

**F**

**Appendix F:** Scheduling Structured Intervention Programs Within an MTSS Framework

# Appendix A—Leadership and System-Readiness Tools

**Use When:** Planning, launching, or refining math intervention systems.

This readiness check supports leadership teams in evaluating whether the structural conditions required for effective intervention are in place.

| Readiness Indicator                                                                           | Yes | In Progress | No |
|-----------------------------------------------------------------------------------------------|-----|-------------|----|
| Daily intervention time is protected in the schedule.                                         |     |             |    |
| Tier 2 and Tier 3 entry criteria are clearly defined.                                         |     |             |    |
| Intervention group sizes reflect student need.                                                |     |             |    |
| Intervention staff are trained in explicit instructional routines and program implementation. |     |             |    |
| Progress monitoring expectations are established.                                             |     |             |    |
| Supplemental tools are intentionally integrated.                                              |     |             |    |

Action Item:

Priority system adjustment needed for this term: \_\_\_\_\_

# Appendix B—Placement and Instruction

## Action Cards

**Use When:** Reviewing diagnostic or progress data to make or adjust intervention decisions. Select the card that best aligns to the student’s primary instructional need, implement the response, and review progress within the suggested timeline.

### Action Card 1

#### Strengthening Foundational Skills

##### Look for:

- ☐ Developing number sense or computation accuracy
- ☐ Difficulty with basic operations
- ☐ Inconsistent math fluency

##### Instructional response:

- ☐ Explicit, teacher-led instruction
- ☐ Structured, step-by-step lessons
- ☐ Small-group delivery

##### Supports may include:

- ☐ Foundational math intervention programs such as structured, skill-based curricula (e.g., *Corrective Math*®, *Essentials for Algebra*®)
- ☐ Targeted skill-building supplemental resources aligned to identified gaps (e.g., *ALEKS*®)

##### Suggested review timeline:

- ☐ 4–6 weeks

### Action Card 2

#### Deepening Conceptual Understanding

##### Look for:

- ☐ Procedural work without understanding
- ☐ Difficulty with fractions or rational numbers
- ☐ Limited use of models or representations

##### Instructional response:

- ☐ Emphasize visual models
- ☐ Connect procedures to concepts
- ☐ Guided practice with feedback

##### Supports may include:

- ☐ Conceptual math programs
- ☐ Representation-based instruction

##### Suggested review timeline:

- ☐ 6–8 weeks

### Action Card 3

#### Building Algebra Readiness

##### Look for:

- ☐ Difficulty with problem-solving
- ☐ Weak proportional reasoning
- ☐ Limited readiness for algebraic thinking

##### Instructional response:

- ☐ Focus on prerequisite algebra skills
- ☐ Structured problem-solving routines
- ☐ Explicit modeling

##### Supports may include:

- ☐ Algebra readiness or pre-algebra interventions

##### Suggested review timeline:

- ☐ 6–8 weeks

### Action Card 4

#### Reinforcing and Extending Learning

##### Look for:

- ☐ Partial mastery of targeted skills
- ☐ Inconsistent performance across settings
- ☐ Need for individualized practice

##### Instructional response:

- ☐ Personalized practice aligned to instruction
- ☐ Frequent progress monitoring

##### Supports may include:

- ☐ Adaptive or diagnostic-based tools
- ☐ Supplemental practice resources

##### Suggested review timeline:

- ☐ 4–6 weeks



# Appendix C—Instructional Coaching Tools

**Use When:** Conducting observations, walkthroughs, or coaching cycles.

## Math Intervention Instruction Look-Fors

Use this checklist to guide coaching conversations and strengthen instructional consistency.

| Instructional Practice                    | Observed | Not Yet |
|-------------------------------------------|----------|---------|
| Teacher models math thinking explicitly   |          |         |
| Guided practice includes feedback         |          |         |
| Instruction targets identified skill gaps |          |         |
| Students are actively engaged             |          |         |
| Lesson follows a consistent routine       |          |         |

Notes:

Next Instructional Step: \_\_\_\_\_



# Appendix D—Progress, Exit, and Continuous Improvement

**Use When:** Meeting to review data to determine next instructional steps.

| Indicator                             | Achieved | Not Yet |
|---------------------------------------|----------|---------|
| Target skills mastered                |          |         |
| Progress sustained over time          |          |         |
| Student accessing grade-level content |          |         |
| Team agreement reached                |          |         |

**Decision:**    ☐ Exit intervention                      ☐ Continue support                      ☐ Adjust intensity

What instructional strategies are producing growth? \_\_\_\_\_  
\_\_\_\_\_

What adjustments may strengthen impact? \_\_\_\_\_  
\_\_\_\_\_

Where are additional skill supports needed? \_\_\_\_\_  
\_\_\_\_\_

Are intervention structures being implemented consistently?    ☐ Yes    ☐ No

Priority action for next implementation check: \_\_\_\_\_  
\_\_\_\_\_

# Appendix E—Scheduling *ALEKS*® Within an MTSS Framework

**Purpose:** Provide guidance for scheduling *ALEKS* in alignment with the Closing the Gap framework and recommended weekly usage of 30–60 minutes.

## Recommended Weekly Usage

Students should engage in *ALEKS* for 30 to 60 minutes per week to support consistent progression through adaptive learning pathways.

### This time may be scheduled:

- Within a Tier 1 classroom block
- Within a Tier 2 intervention period
- Through structured independent study aligned to skill goals

### Tier 2 Implementation Model

Target: 45–60 minutes per week

#### Example within a 45-minute intervention block:

- 15–20 minutes explicit teacher modeling
- 15–20 minutes guided practice
- 10–20 minutes *ALEKS* reinforcement

#### Purpose:

- Reinforce prerequisite skills
- Provide individualized practice
- Maintain engagement during small-group instruction
- Inform regrouping decisions

#### Leadership look-fors:

- ☐ Time protected within intervention schedule
- ☐ Practice aligned to identified skill needs
- ☐ Usage data reviewed during progress meetings

### Tier 1 Implementation Model

Target: 30–45 minutes per week

#### Scheduling options:

- 15 minutes at the end of two or three math periods
- One 30-minute practice session per week
- Short daily sessions (10–15 minutes) across three days

#### Purpose:

- Reinforce recently taught content
- Differentiate practice by readiness level
- Generate data to inform core instruction

#### Leadership look-fors:

- ☐ Scheduled weekly usage time
- ☐ Practice aligned to current instructional priorities
- ☐ Teacher review of *ALEKS* reports to inform instruction

## Independent or Extended Learning Use

*ALEKS*® may also be assigned outside scheduled intervention time to meet weekly usage targets.

### To maintain alignment with Closing the Gap principles:

- Independent *ALEKS* time reinforces explicitly taught skills.
- Weekly usage expectations are clearly communicated.
- Progress data is reviewed during scheduled data cycles.

*(Note—Independent practice extends learning time.)*

## Scheduling Principles



Protect weekly usage time in the master schedule.



Use reports to guide instructional adjustments.



Maintain consistent implementation across weeks.



Keep explicit instruction as the foundation.



Align *ALEKS* practice to diagnostic and intervention goals.



# Appendix F—Scheduling Structured Intervention Programs Within an MTSS Framework

**Purpose:** Provide guidance for scheduling structured, teacher-led intervention programs such as *Corrective Mathematics*® and *Essentials for Algebra*® within a Closing the Gap framework.

Structured intervention programs are most effective when delivered with fidelity, protected time, and consistent pacing. These programs are designed to provide explicit instruction, guided practice, and cumulative review.

## Scheduling Structured Intervention Programs

(Playbook Tool for *Essentials for Algebra* and *Corrective Mathematics*)

**Use When:** Building master schedules, launching intervention blocks, or reviewing Tier 2 and Tier 3 implementation structures.

### *Essentials for Algebra* Focus:

- ☐ Algebra-readiness competencies
- ☐ Proportional reasoning
- ☐ Foundational algebraic thinking
- ☐ Concurrent support for Algebra I when needed

### *Corrective Mathematics* Focus:

- ☐ Foundational skill development
- ☐ Computation and reasoning reinforcement
- ☐ Structured problem-solving routines
- ☐ Rebuilding prerequisite skills for grade-level access

## Tier 2 Scheduling Model

### Recommended frequency:

- 4–5 days per week
- 30–45 minutes per session

### Example 45-minute intervention block:

- 10–15 minutes explicit modeling
- 15–20 minutes guided practice with feedback
- 5–10 minutes cumulative review
- Brief formative check or mastery confirmation

### Leadership look-fors:

- ☐ Daily intervention block protected
- ☐ Lesson routines delivered with fidelity
- ☐ Students grouped by demonstrated skill need
- ☐ Progress reviewed every 4–6 weeks

### Scheduling Integrity Check

#### During implementation planning, confirm:

- ☐ Intervention time is embedded within the master schedule.
- ☐ Lessons are delivered in full sequence without fragmentation.
- ☐ Students are grouped by demonstrated skill need.
- ☐ Progress is reviewed every 4–6 weeks.
- ☐ Adjustments are made based on data.

## Tier 3 Scheduling Model

### Recommended frequency:

- 5 days per week
- 45–60 minutes per session

Tier 3 may include extended time or double blocks depending on student need.

### Leadership look-fors:

- ☐ Intervention time embedded in master schedule
- ☐ Smaller group size
- ☐ Increased instructional feedback
- ☐ Regular progress monitoring cycles

### Pairing with Supplemental Tools

#### When paired with adaptive reinforcement tools:

- ☐ Teacher-led explicit instruction remains primary.
- ☐ Supplemental time reinforces identified skill priorities.
- ☐ Practice aligns to intervention goals.
- ☐ Usage data informs regrouping decisions.

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