

# Kansas Multi-Tier System of Supports

## ● Collaborative Team Workbook Mathematics

August 2011



## Introduction to Document

The *Kansas Multi-Tier System of Supports: Structuring Guide* has been created to assist schools in creating the structures necessary to begin the implementation of a Multi-Tier System of Supports (MTSS). This document serves as a workbook for either schools working with Recognized MTSS Facilitators (a current list can be found at [www.kansasmtss.org](http://www.kansasmtss.org)) or as a do-it-yourself guide for schools taking on the challenge themselves. This document provides an explanation of why each component is important as well as suggests steps that have helped other schools successfully complete the tasks and decision making necessary for creating structures that support a sustainable system. Content area specific documents for reading, mathematics, and behavior are companion documents to this one, providing information specific to each content area. All Kansas MTSS documents are aligned with the *Kansas Multi-Tier System of Supports: Innovation Configuration Matrix (ICM)*, which describes the critical components of a MTSS and what each looks like when fully implemented, and the *Kansas Multi-Tier System of Supports: Research Base*, which provides a basic overview of the research support for a MTSS.

## Acknowledgements

A significant commitment of time and energy from numerous Kansas educators, their districts, organizations and partners made this document possible. Their efforts to learn and help others understand what it takes to make a MTSS a reality within schools is reflected in this document. This grassroots effort on the part of Kansas educators indicates a commitment to meeting the needs of every student and sharing wisdom from the field and the research. As the list of individuals and districts that have contributed to this effort over the past 8 years has become too long to detail, a collective expression of gratitude is offered here to everyone who has contributed to the concepts, ideas, and knowledge that are reflected in all Kansas MTSS documents.

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# Early Numeracy in Grades K-1

## **Step 1: Review and Validate Universal Screening Data**

- This initial examination of the data ensures that the data are accurate before their use for instructional decision-making.
- Was the screening assessment administered with fidelity?
- Were there environmental circumstances or events in the student's life that may have impacted score results? For example, was the student sick the day of the universal screening assessment? Has a traumatic event happened recently?
- If the collaborative team lacks confidence in any score, further screening of the student's skills should be completed.
- Validated scores need to be entered in the data management system and final reports generated.

NOTES:

## Step 2: Analyze Grade Level Data

- Review the grade level report or Tier Transition Report and consider the percentage of students within the On Track (at or above 25%ile), Supplemental (10%ile - 24%ile), and Intensive (9%ile and below) ranges and record on the Grade Level Status tool. Make sure that the report is based on national norms. The team should consider the current grade level status and set a goal or review the previously determined goal for this academic year.
- The goal is for schools to have 80 percent of students On Track for both the Missing Number and Quantity Discrimination measures for Grades K-1. If the building has fewer students than 80 percent of students On Track, then several issues should be considered:
  - Are core instruction and the core curriculum being implemented with fidelity? How do we know?
  - Is core instruction explicit, systematic, and scaffolded?
  - Are math concepts being taught to mastery?
  - Are there sufficient examples, explanations, and opportunities for practice to support new learning?
  - What do the strengths and needs of this current grade make us think about in terms of differentiating the core?
  - Are supports or professional development needed with the core curriculum or core instruction? If so, these need to be communicated to the building leadership team.

### NOTES:

- Use a copy of the *Grade Level Status for Early Numeracy (Grades K-1)* form to complete this step.

## Grade Level Status for Early Numeracy (Grades K-1)

Question: What is our current *GRADE LEVEL* status and goal?

		% On Track At or above 25%ile	% at Supplemental 10 – 24 %ile	% at Intensive 9%ile or below
<b>Fall</b>	Missing Number			
	Quantity Discrimination			
<b>Winter</b>	Missing Number			
	Quantity Discrimination			
<b>Spring</b>	Missing Number			
	Quantity Discrimination			

**Considerations for Discussion:** As the team evaluates grade level data, what comes to mind in terms of...?

- Implementing core curriculum with fidelity
- Strengths and weaknesses of the current group of learners
- Needs for differentiation
- Professional development needs
- Supports needed

**Set Goal:** By spring, we want \_\_\_\_\_% to be On Track with their Missing Number skills.

By spring, we want \_\_\_\_\_% to be On Track with their Quantity Discrimination skills.

Discussion Notes:

### Step 3: Analyze Classroom Level Data

- Review the class level report (rainbow report) showing the distribution of student scores for each class. Make sure the report is based on national norms, not building norms.
- Enter current data on the Classroom Level Status Worksheet, and compare the percentages to previous data. The percentage in each instructional recommendation category needs to be established for both the Missing Number and Quantity Discrimination measures.
- Review the classroom report, and consider the number of students within the On Track (at or above 25%ile), Supplemental (10%ile – 24%ile), and Intensive (9%ile and below) ranges. The goal is for schools to have 80 percent of students in grades K-1 On Track for Missing Number and Quantity Discrimination. If the building has fewer students than this On Track, then several issues should be considered:
  - Is the core being taught with fidelity?
  - Is sufficient instructional time being allocated to core math instruction?
  - Is core instruction explicit, scaffolded, and differentiated?
  - Are there sufficient opportunities for practice and review?
  - Are peer-tutoring strategies being used in core to support the needs of students with math difficulties?
- Teachers also need to consider how to differentiate instruction to provide a variety of curricular materials to meet the needs of a class where so many students lack adequate skills.
- Collaborative teams then need to decide if any of these issues or any needs for professional development should be reported to the building leadership team.

#### NOTES:

- Use a copy of the *Classroom Level Status for Early Numeracy (Grades K-1)* form to complete this step.

# Classroom Level Status for Early Numeracy (Grades K-1)

**Question: What is the current status of MY CLASS?**

		% On Track At or above 25%ile	% at Supplemental 10 – 24 %ile	% at Intensive 9%ile or below
<b>Fall</b>	Missing Number			
	Quantity Discrimination			
<b>Winter</b>	Missing Number			
	Quantity Discrimination			
<b>Spring</b>	Missing Number			
	Quantity Discrimination			

**Considerations for Discussion:** As you evaluate classroom level data, what comes to mind in terms of...?

- Implementing core curriculum with fidelity
- Strengths and weaknesses of the current group of learners
- Needs for differentiation
- Professional development needs
- Supports needed

**Set Goal:** By spring, we want \_\_\_\_\_% to be On Track with their Missing Number skills.

By spring, we want \_\_\_\_\_% to be On Track with their Quantity Discrimination skills.

Discussion Notes:

**Step 4: Conduct Initial Instructional Sort**

- When determining instructional groups, look at both the instructional recommendations and the instructional focus for skill development.
- Using the screening data, sort students into the Four Groups.

<p><b>Group 1:</b></p> <p>Adequate in Missing Number (at or above 25%ile)          Adequate in Quantity Discrimination (at or above 25%ile)</p>	<p><b>Group 2:</b></p> <p>Low in Missing Number (below 25%ile)          Adequate in Quantity Discrimination (at or above 25%ile)</p>
<p><b>Group 3:</b></p> <p>Low in Missing Number (below 25%ile)          Low in Quantity Discrimination (below 25%ile)</p>	<p><b>Group 4:</b></p> <p>Adequate in Missing Number (at or above 25%ile)          Low in Quantity Discrimination (below 25%ile)</p>

- Once the students have been placed into each group, then use highlighters to mark which students are at the Supplemental level (yellow), and which students are at the Intensive level (pink or red). If a student in Group 3 is at the Supplemental level in one area and at the Intensive level in the other area, the student should be marked as needing Intensive intervention.
- Students who are low in Missing Number and Quantity Discrimination will also need to receive instruction in Oral Counting and Number Identification skills if they are below the 25<sup>th</sup> percentile on those skills.
- First grade students who are adequate in all the early numeracy subtests, but who score below the 25<sup>th</sup> percentile on the Computation screening, should receive intervention for any missing computational skills. They would be included within Group 1 during the sorting process.
- Using the results of the initial group sort, consider whether the data indicate the need to implement a class-wide intervention. Any teacher who has a class with more than 40% of the students scoring in a single group (Groups 2, 3, or 4) needs to
  - (a) Plan a class-wide intervention to address that weakness in students’ skills; and
  - (b) Plan adjustments in instruction and curricular materials to support their learning needs.
- If additional professional development or coaching support is needed, the collaborative team communicates those needs to the building leadership team.

**NOTES:**

- Use a copy of the *Early Numeracy Group Sort (Grades K-1)* form to complete this step.

## Early Numeracy Group Sort (Grades K-1)

<p><b>Group 1:</b> Adequate in both Missing Number and Quantity Discrimination (at or above 25%ile) <i>For first grade only:</i> Low in Computation (below 25%ile)</p>	<p><b>Group 2:</b> Low in Missing Number (below 25%ile) Adequate in Quantity Discrimination (at or above 25%ile)</p>
<p><b>Group 3:</b> Low in both Missing Number and Quantity Discrimination (below 25%ile)</p>	<p><b>Group 4:</b> Adequate in Missing Number (at or above 25%ile) Low in Quantity Discrimination (below 25%ile)</p>

### **Step 5: Determine What Additional Information Is Needed and Complete the Diagnostic Process**

- The instructional level for kindergarten students needing intervention is kindergarten, so use kindergarten materials for instruction and for progress monitoring.
- Determining Instructional Level for First Graders Scoring Below the On Track Range (On Track is at or above the 25<sup>th</sup>ile on national norms)
  - Test down one grade level in the area of weakness.
  - If the student scores below the 25<sup>th</sup> percentile at the kindergarten level for the time of year, use kindergarten-level materials for instruction and for progress monitoring.
  - If the student does reach the 25<sup>th</sup> percentile at the kindergarten level for the time of year, use first-grade-level materials for instruction and for progress monitoring.
- Use error analysis of the probes to identify specific skill weaknesses and instructional needs.
- Complete final groupings of students, according to similar types and levels of skill deficits, as well as intervention intensity (Supplemental or Intensive).
- At this point diagnostic placement tests from materials that are appropriate for the intervention group can also be administered.

NOTES:

## **Step 6: Determine Instructional Focus for Each Student and Finalize Instructional Groupings**

- Use the information from the diagnostic process to finalize groupings around each student's instructional level and specific skill needs.
- Make sure there is a match between the student's designated grouping and the level of Supplemental or Intensive instruction to be provided.
- Review the instructional focus of each group to make sure that the planned intervention is aligned to the identified student need for that group.
- Make sure there is a good match between the knowledge of the instructors and the interventions they will be teaching.
- Students who are low in Missing Number and Quantity Discrimination should be grouped for instruction in Oral Counting and/or Number Identification skills if they score below the 25<sup>th</sup> percentile on those skills.
- First grade students who are adequate in all the early numeracy subtests, but who score below the 25<sup>th</sup> percentile on the Computation screening, should be grouped based on missing computational skills.
- Use the Math Student Grouping Worksheet to document instructional groupings.

### NOTES:

- Use a copy of the *Math Student Grouping Worksheet* to complete this step.

## Math Student Grouping Worksheet

### **Intensive Intervention Group -**

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

### **Supplemental Intervention Groups-**

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

## **Step 7: Determine Appropriate Instructional Materials to Be Used for Each Instructional Grouping**

- Choose appropriate interventions from those documented on the Curriculum Matrix or the Four Group Instructional Summary tool for Grades K-1.
- Note that the assessments to be used for progress monitoring and the exit criteria for Groups 2, 3, and 4 are described in the Math Four Group Instructional Summary tool for Grades K-1.
- Early numeracy skill instruction should use a concrete-representational-abstract (CRA) approach.
- Students in Groups 2, 3, and 4 who are also below the 25<sup>th</sup> percentile in Oral Counting and Number Identification will need to work on those skills in addition to the instructional focus of the group.
  - These students will need to focus on the concrete and representational steps of the CRA sequence of instruction for Missing Number and Quantity Discrimination until Number Identification is mastered. Then the abstract step of using numerals can be added.
- Most curricular and instructional materials for early numeracy include a wide variety of skills. When planning instruction for each group, it is important to make sure that the skill targeted for instructional focus receives the most time for instruction and practice.
- After selecting the interventions, teams will need to determine and document the following items on the Math Student Grouping Worksheet:
  - Who will provide the intervention for each group,
  - The instructional focus of the group,
  - The location where the intervention will be delivered, and
  - The person responsible for progress monitoring.

### NOTES:

- Use a copy of the *Four Group Instructional Summary for Grades K-1* to complete this step.



## Step 8: Identify Skill(s) To Be Progress Monitored

- Review the decision rules for the criteria for changing instructional focus and the criteria for the instructional intensity recommendation (i.e., Supplemental or Intensive).
- Review the exit criteria.
- The skill to be progress monitored for Groups 2 and 3 is Missing Number, and for Groups 3 and 4 is Quantity Discrimination.
- In addition to progress monitoring to determine skill growth, teachers will also want to assess skills for instructional purposes—for example, pre- and post-measures of number identification skills.
- When students are ready to be moved to different skill groupings, teams may wish to reorganize and re-sort the small groups.

### NOTES:

There are several ways to measure student growth. Progress monitoring of students in intervention measures (a) whether growth is occurring for those students and (b) whether sufficient growth is being obtained for students to close the gap. The results are graphed and the charts used for instructional decision-making.

A second way to measure growth is by using a pre- and post-assessment to determine whether a student has mastered specific instructional skills. Some curricular materials contain measures for assessing student growth that are frequently labeled progress monitoring measures. However, these measures are actually pre- and post-assessment in that they reflect whether students are learning the skills taught by that program. They will not measure whether students are improving in all the critical skills measured by an integrated screening and progress monitoring data system. Only that kind of progress monitoring can provide information about the effectiveness of the curriculum, whether students in intervention are closing the gap with their grade level peers, and whether instruction needs to be intensified.

### **Step 9: Determine the Appropriate Level for Progress Monitoring**

- Students should be monitored at their instructional level, which was determined during the diagnostic process in Step 5.
- Kindergarten students are always progress monitored at the kindergarten level.
- The procedure from Step 5 for determining the instructional level for first graders is:
  - Test down one grade level in the area of weakness (kindergarten level).
  - If the student does not reach the 25<sup>th</sup> percentile at the kindergarten level for the time of year, use kindergarten-level materials for instruction and for progress monitoring.
  - If the student scores at or above the 25<sup>th</sup> percentile at the kindergarten level for the time of year, use first-grade-level materials for instruction and for progress monitoring.
- Intervention providers must maintain an intervention log for documenting changes made to the student's intervention plan. Any changes to the protocol intervention or individualized plan should be documented in the intervention log.

NOTES:

### **Step 10: Determine the Appropriate Goal**

- The goal for a student should be the 25<sup>th</sup> percentile on end-of-year norms for the grade level at which the student is being progress monitored.
- National norms should be used to set the end-of-year goal for a student.
- Once the level for progress monitoring has been selected and a goal for the student has been chosen, start a chart for progress monitoring. Plot the score the student obtained on the probe at the student's instructional level as the baseline score.
- Next, plot the score that is the goal for the student at the level being used for progress monitoring.
- Now draw a line between the baseline point and the goal point. This is the student's aimline, sometimes called the goal line.
- Graph the data and chart the growth of individual students.
- Complete the data display for each student receiving intervention. Whatever method of data display is used, it is important to make sure it is maintained in a confidential manner, but readily available to staff members who work with the student.

NOTES:

### **Step 11: Determine the Frequency of Progress Monitoring Data Collection and Review**

- Students in Supplemental intervention should be progress monitored once every two weeks.
- Students in Intensive intervention should be progress monitored every week.
- Use the decision rules of the building (such as the “three data-point decision rule”) to determine if student performance indicates that adjustment to the instruction may be appropriate.
- Follow the schedule established for reviewing the progress monitoring data.
- In general, students are likely to learn earlier and more discrete basic skills very quickly, once skill-focused intervention is provided. More complex skills usually require a longer period of time for a student to show growth.

NOTES:

## **Step 12: Validate Progress Monitoring Data**

- As soon as progress monitoring data is collected, add it to the student's progress-monitoring chart.
- Establish and follow a routine for examining all the progress monitoring graphs for accuracy on a regular basis. Examine the charts to confirm:
  - the correct skills were progress monitored at the correct level,
  - sufficient data have been collected to make decisions, according to the established decision rules, and
  - the data were correctly graphed.

NOTES:

### Step 13: Determine if the Student is Making Progress

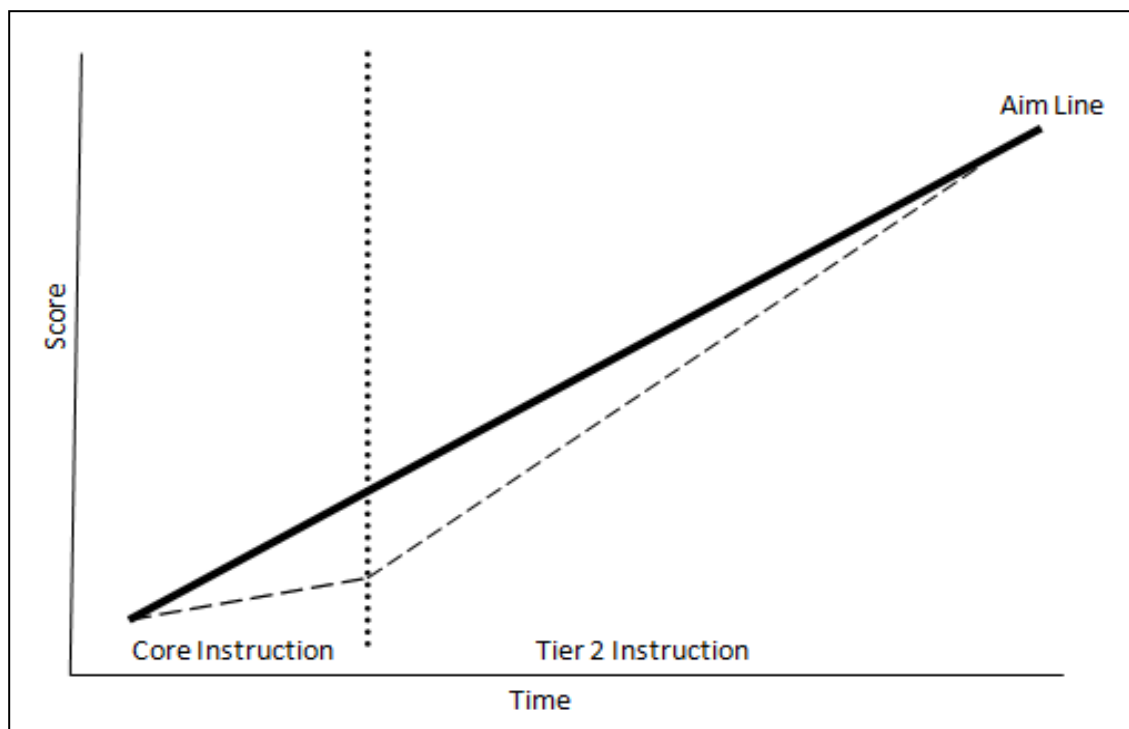
- The analysis of progress monitoring data is a two-step process: (a) determine whether the student is making progress and (b) determine whether the rate of growth is sufficient to close the gap.
- The team determines if the student is making progress by comparing the student's trendline to the identified goal line or aimline. The trendline is the line of best fit for the progress monitoring points collected over time, meaning that it is the line drawn through the data points that comes closest to having all of the points fall on the line. To determine if the student is making progress, review the progress monitoring data and apply the decision rules of the system.
- The team also determines if the student's progress is sufficient to close the gap with grade level peers by comparing a continuation of the student's trendline to the final desired level of performance, which is typically the On Track range (at or above the 25<sup>th</sup>ile) for the grade level.
- In the examples below a 3-data-point decision rule is used. If the building uses a 4- or 6-data-point rule the same process applies with a modification of only the number of data points.
- ***3 or More Consecutive Data Points Above Aimline, or Data Points are both Above and Below the Aimline***
  - If a student has 3 or more data points consecutively *above* the aimline or the data points are inconsistent (i.e., both above and below), it means the intervention is having a positive impact, and progress is being made. This alone is not a sufficiently deep analysis to determine if an adjustment in instruction is appropriate. To determine this, the team will need to determine if the gap is closing (go to Step 14).
- ***3 or More Consecutive Data Points Below the Aimline, but Trendline has an Upward Trend***
  - If 3 or more consecutive data points are below the aimline, but the trendline has an upward trend, it means that sufficient progress is not being achieved. This alone is not a sufficiently deep analysis to determine any potential adjustment in instruction. To determine an appropriate adjustment in instruction, further analysis is needed (go to Step 15).
- ***3 or More Consecutive Data Points Below the Aimline and Trendline is Flat or Downward***
  - When the trendline is below the aimline and on a flat or downward trend, this means that progress is not being made. The lack of progress can be the result of many things so a structured and sequential process to look for the cause must be used (go to Step 16).

NOTES:

### Step 14: Determine if the Student is Making Enough Progress

The ultimate goal for students in intervention is to close the gap between where the student is currently performing and the grade level performance of peers. The chart of a student who is closing the gap will show data points that fall both above and below the aimline or a trendline that will intersect with the aimline before the end of the year (or other monitoring period of time).

#### Made Progress and Sufficient Growth to Close the Gap



If the team determines that the student's progress is at or above the aimline and the student is making progress sufficient to meet the goal, the team needs to make one of the following decisions:

1. Should the intervention recommendation be changed, i.e., should the student's intervention be changed from intensive to supplemental? Teams should follow decision rules for moving students between tiers.
2. Should the student be regrouped to work on a different skill? If the instructional focus is on a skill that is multiple grade levels below grade level core instruction, the team will want to consider conducting more assessment to determine the appropriate instructional focus for the student and regroup based on the new skill.
3. Should intervention continue as currently designed and implemented?

Just because a student is showing progress does not mean that immediate action must be taken. Generally the team will want to continue the student in the current successful intervention until the goal for that instructional level is met. Once the student meets the goal, teachers should move to the next higher grade level for instructional materials and

level of progress monitoring. Teachers should repeat this process for increasing the level of instructional materials based on progress monitoring results until the student's progress has closed the achievement gap with peers. Once the student closes this gap, gradually decreasing the amount of support provided to the student should be considered. Continued progress monitoring will indicate whether decreased support is sufficient for student growth to continue.

4. Should intervention be discontinued and would core instruction be sufficient?

Having students learn skills to the point they can succeed with only core instruction is the goal of MTSS. When considering this decision, the team needs to ask questions such as:

- How close is this achievement to being within the On Track range for the student's grade level? If the student's current level is considerably below the On Track range, it is likely the student will continue to need intervention.
- What are the next critical skills the student needs to learn? Knowing this allows the team to make informed decisions about the appropriate instructional focus for the student.
- What are the skills being taught within the core curriculum? Knowing this allows the team to understand and make informed decisions about the instructional match between what is being taught in core and in intervention.
- What level of support has been provided to allow this level of achievement? If a very high level of support has been provided to achieve the performance, the team may consider reducing the intervention intensity as opposed to immediately discontinuing intervention.
- How frequently should progress be monitored if intervention is discontinued and the student is only receiving core instruction? Even after a student has exited from intervention, it is important to check more frequently than just universal screening to make sure that the skills have generalized to the classroom and the student is still able to be successful.

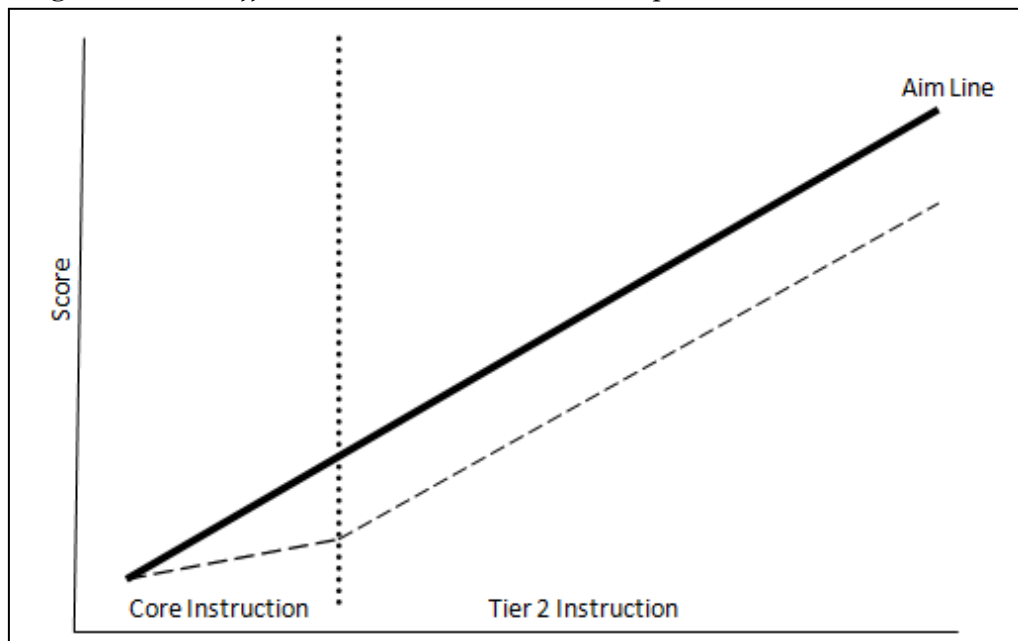
If a student is returned to core, then continued progress monitoring for a period of time is recommended in case a need re-emerges for additional support.

NOTES:

### Step 15: If the Student is not Making Sufficient Growth to Close the Gap, then Intensify Instruction

If the graph of student performance shows an upward-trending line that will not intersect with the goal line or aimline, then a student is improving, but at a rate that is insufficient to close the gap with peers.

#### Made Progress but Insufficient Growth to Close the Gap



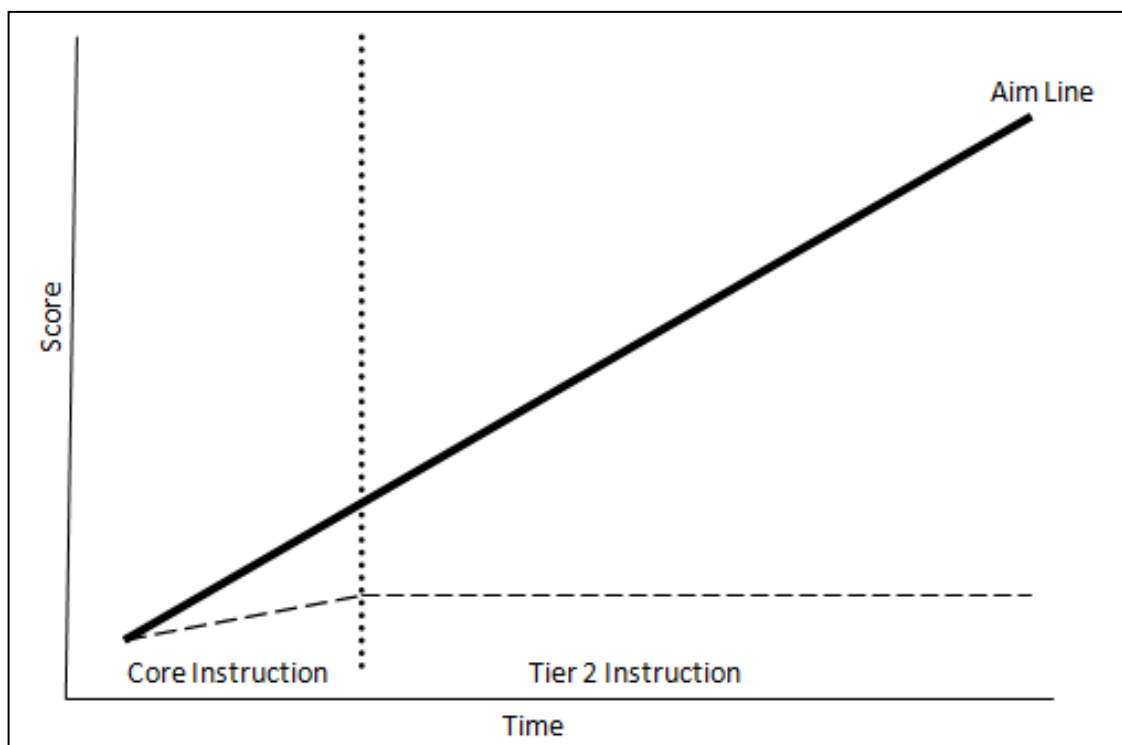
If the team determines the student is showing growth but it is at an insufficient rate to close the gap, then the team needs to determine how to increase the intensity of the current instruction. Ways to intensify instruction include the following options:

- Check student's attendance to see if the student needs intervention to improve his participation in instruction;
- Increase the number of student responses in a minute by reducing group size;
- Increase the number of questions and error corrections the student receives in a minute;
- Increase the scaffolding by breaking the task down further or by providing more structure so that the student can be successful;
- Spend more time modeling the "I do" and "We do" guided practice before the student practices independently;
- Increase the number of repetition cycles on each skill before moving on to see whether mastery is achieved with more practices;
- Use a more systematic curriculum, so that skills are taught in a prescribed manner, with the teacher asking questions and cueing with the same language for each routine.

NOTES:

### Step 16: If Student is Not Making Progress, Customize the Intervention

If the graph of student performance shows a trendline that is flat or has a downward trend, then teams should consider customizing the intervention.



There are many factors that can influence whether a student makes progress, so it is important to have a systematic process for analyzing the cause, starting with the most basic and easiest change. However, it is always important to remember that the protocol intervention must be taught with fidelity first. Next, if the student is still not making progress, then the intervention can be customized one piece at a time.

In analyzing a lack of progress, the team must look into each of these items in sequence:

1. First check the student's attendance to make sure that access to instruction is not the issue.
2. Next, check to ensure that the skill being progress monitored is the same as the instructional focus (what is being taught) of the intervention.
3. If the skill and the progress monitoring measure are consistent, check for fidelity of instruction. This can be done by looking at the intervention log to check if the intervention was given as frequently as planned (i.e., daily), for the duration planned (i.e., 30 or 60 minutes), using the materials as designed, and that progress monitoring was done as planned (i.e., weekly)
4. If both of the previous are happening, next consider increasing the pace of instruction. Often teachers respond to the student having difficulty in learning by slowing down the pace of instruction, when in fact they need to increase the pace of instruction. Slowing down the pace of instruction can result in lower levels of student attention and

motivation, while a faster pace can keep students engaged. The pace of instruction is related to the number of student-teacher interactions per minute. For intensive intervention with groups of 3 or fewer, students should be expected to provide 5 correct responses per minute (via choral or individual responses).

5. Next consider modifying the pace of intervention. For example, reducing the number of new skills introduced each week can slow the pace of intervention down. If new skills are being introduced at the rate of 5 new skills per week, consider introducing only 3 new skills per week and providing a greater amount of practice on each skill before moving to the next skill.
6. Ensure the alignment of programs. Teams need to ensure that vocabulary is used in the same way in both core and intervention, and that skills are taught and practiced in the same way in all instructional settings for each student.
7. If all of the six previous steps have been completed and everything was in place as planned, the team should consider adjusting the instructional materials.
8. Consider moving the student to a different group with a different instructional focus.
9. Consider moving the student from Supplemental to Intensive intervention.

### Additional Assessment

Whenever students fail to make adequate growth on progress monitoring assessments, it may be an indication that further diagnostic assessment needs to be conducted to obtain additional information about skill weaknesses. This would be a time when formal diagnostic assessments, such as Key Math III, STAR Math, or Tools for Early Assessment of Math (TEAM) might be used.

### Individual Student Problem Solving

When a student receiving intensive services fails to show progress, despite data-based adjustments to the intervention being provided, teams should consider the need for individual student problem solving to customize the intervention provided to the student. Teams will need to analyze all the data available regarding a student and develop hypotheses about the underlying causes of the student's lack of progress, so that a more individually customized intervention plan can be developed and implemented.

The individual student problem-solving process is what schools have traditionally used for general education interventions, often conducted by Student Improvement Teams (also known as SIT, SAT, TAT, CARE team, etc.). Within the MTSS model, the collaborative teams conduct the work of the General Education Intervention or Student Improvement Team (SIT). The collaborative team working to customize intervention for a student may decide that the data indicate that the student needs to be referred for evaluation for special education services.

At any time when the collaborative team suspects a student may be a student with an exceptionality, they must refer the student for an initial evaluation. Any parent request for

a special education evaluation must be reported to the building administrator or to the appropriate staff person as designated by district special education procedures. The MTSS should not delay a student from receiving a special education evaluation. A student does not have to move through all the tiers before a referral for a special education evaluation is made. Similarly, having received all tiers of instruction or needing Tier 3 instruction does not indicate of itself that a student should be referred for a special education evaluation.

NOTES:

### **Step 17: Update Student Intervention Log and Progress Monitoring Graph**

- Once any instructional adjustments have been completed, instruction and progress monitoring of the student's skill growth continues as in previous steps.
- The student intervention log and the progress monitoring graph need to be consistently updated, so that an accurate record of the interventions and their results can be maintained. It is critical that teachers document both the instruction that they are providing and the intervention sessions that each student actually attends.
- The cycle of assessment, adjustment, and adding to the graph and log continues for as long as a student requires intervention.

NOTES:

# Grades 2 and Above

## **Step 1: Review and Validate Universal Screening Data**

- This initial examination of the data ensures that the data are accurate before their use for instructional decision-making.
- Was the screening assessment administered with fidelity?
- Were there environmental circumstances or events in the student's life that may have impacted score results? For example, was the student sick the day of the universal screening assessment? Has a traumatic event happened recently?
- If the collaborative team lacks confidence in any score, further screening of the student's skills should be completed.
- Validated scores need to be entered in the data management system and final reports generated.

NOTES:

## Step 2: Analyze Grade Level Data

- Review the grade level report or Tier Transition Report and consider the percentage of students within the On Track (at or above 25<sup>th</sup>ile), Supplemental (10<sup>th</sup>ile – 24<sup>th</sup>ile), and Intensive (9<sup>th</sup>ile and below) ranges and record on the Grade Level Status tool. Make sure that the report is based on national norms. The team should consider the current grade level status and set a goal or review the previously determined goal for this academic year.
- The goal is for schools to have 80 percent of students On Track for Computation and Concepts/Application measures for Grades 2 and above. If the building has fewer than 80 percent of students On Track, then several issues should be considered:
  - Are core instruction and the core curriculum being implemented with fidelity? How do we know?
  - Is core instruction explicit, systematic, and scaffolded?
  - Are math concepts being taught to mastery?
  - Are there sufficient examples, explanations, and opportunities for practice to support new learning?
  - What do the strengths and needs of this current grade make us think about in terms of differentiating the core?
  - Are supports or professional development needed with the core curriculum or core instruction? If so, these need to be communicated to the building leadership team.

### NOTES:

- Use a copy of the *Grade Level Status for Early Numeracy (Grades 2-12)* form to complete this step.

# Grade Level Status for Mathematics (Grades 2-12)

Question: What is our current *GRADE LEVEL* status and goal?

		% On Track At or above 25%ile	% at Supplemental 10 – 24%ile	% at Intensive 9%ile and below
<b>Fall</b>	Computation			
	Concepts/ Application			
<b>Winter</b>	Computation Data			
	Concepts/ Application			
<b>Spring</b>	Computation			
	Concepts/ Application			

**Considerations for Discussion:** As you evaluate grade level data, what comes to mind in terms of...?

- Implementing the core curriculum and instruction with fidelity
- Strengths and weaknesses of the current group of learners
- Needs for differentiation
- Professional development needs
- Supports needed

**Set Goal:** By spring, we want \_\_\_\_\_% to be On Track with their Computation skills.  
By spring, we want \_\_\_\_\_% to be at On Track with their Concepts & Application skills.

Discussion Notes:

### Step 3: Analyze Classroom Level Data

- Review the class level report (rainbow report) showing the distribution of student scores for each class. Make sure the report is based on national norms, and not building norms.
- Enter current data on the Classroom Level Status Worksheet and compare the percentages to previous data. The percentage in each instructional recommendation category needs to be established for both the Computation and Concepts/Application measures.
- Review the classroom report and consider the number of students within the On Track (at or above 25%ile), Supplemental (10%ile – 24%ile), and Intensive (9%ile and below) ranges. The goal is for schools to have 80 percent of students On Track for Computation and Concepts/Application measures for Grades 2 and above. If the building has fewer students than this On Track, then several issues should be considered:
  - Is the core being taught with fidelity?
  - Is sufficient instructional time being allocated to core math instruction?
  - Is core instruction explicit, scaffolded, and differentiated?
  - Are there sufficient opportunities for practice and review?
  - Are peer-tutoring strategies being used in core to support the needs of students with math difficulties?
- Teachers also need to consider how to differentiate instruction and provide a variety of curricular materials to meet the needs of a class where so many students lack adequate skills.
- Collaborative teams then decide if any of these issues or any needs for professional development should be reported to the building leadership team.

#### NOTES:

- Use a copy of the *Classroom Level Status for Math (Grades 2-12)* form to complete this step.

## Classroom Level Status for Math (Grades 2-12)

**Question: What is the current status of MY CLASS?**

		% On Track At or above 25%ile	% at Supplemental 10 – 24%ile	% at Intensive 9%ile and below
<b>Fall</b>	Computation			
	Concepts/ Application			
<b>Winter</b>	Computation			
	Concepts/ Application			
<b>Spring</b>	Computation			
	Concepts/ Application			

**Considerations for Discussion:** As you evaluate classroom level data, what comes to mind in terms of...?

- Implementing the core curriculum and instruction with fidelity
- Strengths and weaknesses of the current group of learners
- Needs for differentiation
- Professional development needs
- Supports needed

**Set Class Goal:** By spring, I want \_\_\_\_\_% to be On Track with their Computation skills.

By spring, I want \_\_\_\_\_% to be On Track with their Concepts/Application skills.

Discussion Notes:

**Step 4: Conduct Initial Instructional Sort**

- When determining instructional groups, look at both the instructional recommendations and the instructional focus for skill development.
- Using the screening data, sort students into the Four Groups. (Note: if using STEEP, the focal point probe at grades 2—5 should be used as the Concepts/Application measure.)

<p><b>Group 1:</b></p> <p>Adequate in Computation (at or above 25%ile) Adequate in Concepts/Application (at or above 25%ile)</p>	<p><b>Group 2:</b></p> <p>Adequate in Computation (at or above 25%ile) Low in Concepts/Application (below 25%ile)</p>
<p><b>Group 3:</b></p> <p>Low in Computation (below 25%ile) Low in Concepts/Application (below 25%ile)</p>	<p><b>Group 4:</b></p> <p>Low in Computation (below 25%ile) Adequate in Concepts/Application (at or above 25%ile)</p>

- Once the students have been placed into each group, then use highlighters to mark which students are at the Supplemental level (yellow) and which students are at the Intensive level (pink or red). If a student in Group 3 is at the Supplemental level in one area and at the Intensive level in the other area, the student should be marked as needing Intensive intervention.
- Using the results of the initial group sort, consider whether the data indicate the need to implement a class-wide intervention. Any teacher who has a class with more than 40% of the students scoring in a single group (for Group 2, 3, or 4) needs to do the following:
  - (a) Plan a class-wide intervention to address that weakness in students’ skills; and
  - (b) Plan adjustments in instruction and curricular materials to support the students’ learning needs.
- If additional professional development or coaching support is needed, the collaborative team communicates those needs to the building leadership team.

**NOTES:**

- Use a copy of the *Math Group Sort (Grades 2 and above)* form to complete this step.

## Math Group Sort (Grades 2 and above)

<p><b>Group 1:</b> Adequate in both Computation and Concepts/Application (at or above 25%ile)</p>	<p><b>Group 2:</b> Adequate in Computation (at or above 25%ile) Low in Concepts/Application (below 25%ile)</p>
<p><b>Group 3:</b> Low in both Computation and Concepts/Application (below 25%ile)</p>	<p><b>Group 4:</b> Low in Computation (below 25%ile) Adequate in Concepts/Application (at or above 25%ile)</p>

## **Step 5: Determine What Additional Information Is Needed and Complete the Diagnostic Process**

- Determining Student's Instructional Level
  - Test down one grade level at a time in the area of weakness.
  - Find the level at which the student passes (scores at or above the 25<sup>th</sup> percentile) for the time of year.
  - The student's instructional level is one grade level higher than the passing level; use this level for materials (and progress monitoring).
  - If the student scores below the 25<sup>th</sup> percentile on second grade probes, then the Early Numeracy probes should be administered. If the student scores at or above the 25<sup>th</sup> percentile on the Early Numeracy probes, then the first grade Computation probe should be given.
- Use error analysis of the probes, especially the probe at the student's instructional level, to identify specific skill weaknesses and instructional needs.
- For Groups 2 and 3 (low in Concepts/Application), the error analysis should focus primarily on skill weaknesses and instructional needs in problem solving, then on math concepts and vocabulary.
- For Groups 3 and 4 (low in Computation), use single-skill CBM probes to further assess calculation difficulties, and help pinpoint instructional needs regarding computational skills. Single skill CBM probes are available under Resources on the Kansas MTSS website at [www.kansasmtss.org](http://www.kansasmtss.org) or by using the probe generator at [www.interventioncentral.org](http://www.interventioncentral.org).
- Complete final groupings of students, according to similar types and levels of skill deficits, as well as intervention intensity (Supplemental or Intensive).
- At this point diagnostic placement tests from materials that are appropriate for the intervention group can also be administered.
- For students at the intermediate and secondary level, additional skill assessment with fractions should be considered for students who are low on one of the screening measures.

NOTES:

## A Summary of the Diagnostic Process for Grades 2 and above

<b>Steps for Students Low in Concepts/Application (Groups 2 &amp; 3)</b>	<b>Steps for Students Low in Computation (Groups 3 &amp; 4)</b>
1) Test down one grade level at a time, using Concepts/Application probes to find instructional level.	1) Test down one grade level at a time, using Computation probes to find instructional level.
2) Do error analysis of probes, especially the one at instructional level, to identify areas of suspected skill deficit.	2) Do error analysis of probes, especially the one at instructional level, to identify areas of suspected skill deficit.
3) Focus error analysis primarily on problem solving skills, then on math concepts and vocabulary.	3) Conduct follow-up single skill CBMs to further assess calculation skill deficits.
4) Group students according to similar types and levels of skill deficits, as well as intervention intensity.	4) Group students according to similar types and levels of skill deficits, as well as intervention intensity.

## Step 6: Determine Instructional Focus for Each Student and Finalize Instructional Groupings

- Use the information from the diagnostic process to finalize groupings around each student's instructional level and specific skill needs.
- Make sure there is a match between the student's designated grouping and the level of Supplemental or Intensive instruction to be provided.
- Review the instructional focus of each group to make sure that the planned intervention is aligned to the identified student need for that group.
- Make sure there is a good match between the knowledge of the instructors and the interventions they will be teaching.
- Use the Math Student Grouping Worksheet to help plan and document instructional groupings.
  - **Group 2:** Group students based on the results of diagnostic assessment of their problem-solving skill levels and deficits. Instruction should include problem-solving strategies, especially schema-based instruction.
  - **Group 3:** Students should be grouped for instruction based on both their Computation skill needs and their Concepts/Application skill needs. These students are likely to need additional time in intervention. Depending on the building's intervention schedule, instructional groups for concepts/application may mix students from Groups 2 and 3 and instructional groups for computation may mix students from Group 3 and 4. However, this means that the schedule would need to allow the students in Group 3 to be enrolled in two intervention groups that meet at different times each day. Instruction for these students should include the strategies and instructional techniques recommended for Group 2 and for Group 4.
  - **Group 4:** Group students based on the results of diagnostic assessment of computational skill levels and deficits. Instruction should include computation strategies, use of CRA for computation instruction, and meta-cognitive strategy instruction for computation of fractions.

Students who exhibit low skills in Computation (Groups 3 and 4) should also receive instruction in basic facts for 10 minutes during each intervention period (Gersten, et al., 2009).

### NOTES:

- Use the *Math Student Group Worksheet* to complete this step.

## Math Student Grouping Worksheet

### **Intensive Intervention Group -**

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

### **Supplemental Intervention Groups-**

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

Instructional Focus: \_\_\_\_\_ Intervention: \_\_\_\_\_  
 Instructor: \_\_\_\_\_ Location: \_\_\_\_\_  
 Progress Monitoring Tool: \_\_\_\_\_  
 Frequency of Monitoring: \_\_\_\_\_

Student Receiving Intervention	Who does monitoring?

## **Step 7: Determine Appropriate Instructional Materials to Be Used For Each Instructional Grouping**

- Choose appropriate interventions from those documented on the Four Group Instructional Summary tool for Grades 2 and above.
- Note that the assessments to be used for progress monitoring and exit criteria are described in the Math Four Group Instructional Summary tool.
- After selecting the interventions, teams will need to determine and document the following items on the Math Student Grouping Worksheet:
  - Who will provide the intervention for each group,
  - The instructional focus of the group,
  - The location where the intervention will be delivered, and
  - The person responsible for progress monitoring.

### NOTES:

- Use the *Four Group Instructional Summary for Grades 2 and above* to complete this step.



## Step 8: Identify Skill(s) To Be Progress Monitored

- Review the decision rules regarding the criteria for changing instructional focus and the criteria regarding the instructional intensity recommendation (i.e., Supplemental or Intensive).
- Review the exit criteria.
- The skill to be progress monitored is Concepts & Application for Groups 2 and 3, and Computation for Groups 3 and 4.
- When monitoring students in Group 3, give each measure on a different day.
- Students in Intensive intervention in Group 3 should be progress monitored on both skills weekly, but if necessary, the skills could be assessed in alternate weeks.
- In addition to progress monitoring to determine skill growth, teachers will also want to assess skills for instructional purposes, for example, pre- and post-measures of basic facts.
- When students are ready to be moved to different skill groupings, teams may wish to reorganize and re-sort the small groups.

### NOTES:

There are several ways to measure student growth. Progress monitoring of students in intervention measures (a) whether growth is occurring for those students and (b) whether sufficient growth is being obtained for students to close the gap. The results are graphed and the charts used for instructional decision-making.

A second way to measure growth is by using a pre- and post-assessment to determine whether a student has mastered specific instructional skills. Some curricular materials contain measures for assessing student growth that are frequently labeled progress monitoring measures. However, these measures are actually pre- and post-assessment in that they reflect whether students are learning the skills taught by that program. They will not measure whether students are improving in all the critical skills measured by an integrated screening and progress monitoring data system. Only that kind of progress monitoring can provide information about the effectiveness of the curriculum, whether students in intervention are closing the gap with their grade level peers, and whether instruction needs to be intensified.

### **Step 9: Determine the Appropriate Level for Progress Monitoring**

- Students should be monitored at their instructional level, which was determined during the diagnostic process in Step 5.
- The procedure from Step 5 for determining the student's instructional level is:
  1. Consider the grade-level screening results. For students who scored below the 25<sup>th</sup> percentile, test down (using progress monitoring probes) one grade level at a time.
  2. Find the level at which the student passes at the 25<sup>th</sup> percentile for the time of year of testing, using the norms for the grade level of the test.
  3. The student's instructional level is one grade-level higher than the passing level; use the instructional level for instructional materials and progress monitoring.
- Intervention providers must maintain an intervention log for documenting changes made to the student's intervention plan. Any changes to the protocol intervention or individualized plan should be documented in the intervention log.

NOTES:

### **Step 10: Determine the appropriate goal**

- The goal for a student should be the 25<sup>th</sup> percentile on end-of-year norms of the grade level at which the student is being progress monitored.
- National norms should be used to set the end-of-year goals for students.
- Once the level for progress monitoring has been selected and a goal for the student has been chosen, start a chart for progress monitoring. Plot the score the student obtained on the probe at the student's instructional level (or from the universal screening assessment, if the student is being monitored at grade level) as the baseline score.
- Next, plot the score that is the goal for the student at the level being used for progress monitoring.
- Now draw a line between the baseline point and the goal point. This is the student's aimline, sometimes called the goal line.
- Graph the data and chart the growth of individual students.
- Complete the data display for each student receiving intervention. Whatever method of data display is used, it is important to make sure it is maintained in a confidential manner, but readily available to staff members who work with the student.

NOTES:

### **Step 11: Determine Frequency of Progress Monitoring Data Collection and Review**

- Students in Supplemental intervention should be progress monitored once every two weeks.
- Students in Intensive intervention should be progress monitored every week.
- Use the decision rules of the building (such as the “three data-point decision rule”) to determine if student performance indicates that adjustment to the instruction may be appropriate.
- Follow the schedule established for reviewing the progress monitoring data.
- In general, students are likely to learn earlier and more discrete basic skills very quickly, once skill-focused intervention is provided. More complex skills usually require a longer period of time for a student to show growth.

NOTES:

## **Step 12: Validate Progress Monitoring Data**

- As soon as progress monitoring data is collected, add it to the student's progress-monitoring chart.
- Establish and follow a routine for examining all the progress monitoring graphs for accuracy on a regular basis. Examine the charts to confirm:
  - the correct skills were progress monitored at the correct level;
  - sufficient data have been collected to make decisions, according to the established decision rules; and
  - the data were correctly graphed.

NOTES:

### Step 13: Determine if the Student is Making Progress

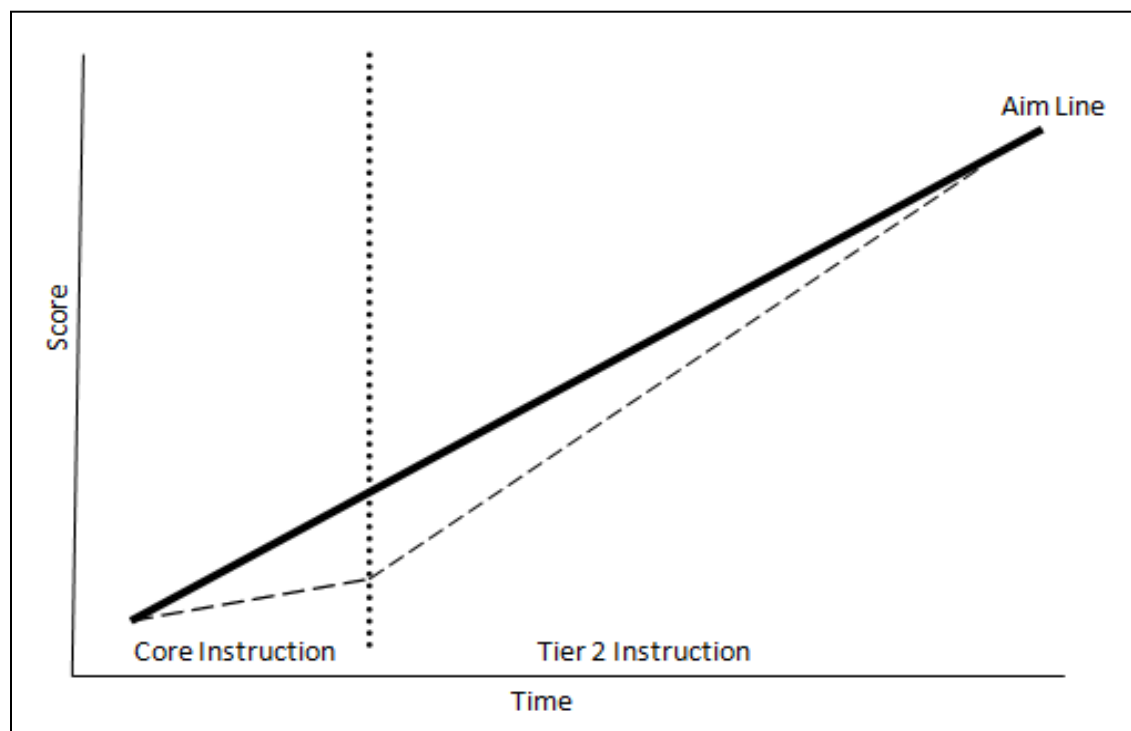
- The analysis of progress monitoring data is a two-step process: (a) determine whether the student is making progress and (b) determine whether the rate of growth is sufficient to close the gap.
  - The team determines if the student is making progress by comparing the student's trendline to the identified goal line or aimline. The trendline is the line of best fit for the progress monitoring points collected over time, meaning that it is the line drawn through the data points that comes closest to having all of the points fall on the line. To determine if the student is making progress, review the progress monitoring data and apply the decision rules of the system.
  - The team also determines if the student's progress is sufficient to close the gap with grade level peers by comparing a continuation of the student's trendline to the final desired level of performance, which is typically the On Track range (at or above the 25<sup>th</sup>ile) for the grade level.
  - In the examples below a 3-data-point decision rule is used. If the building uses a 4- or 6-data-point rule the same process applies with a modification of only the number of data points.
- ***3 or More Consecutive Data Points Above Aimline, or Data Points are both Above and Below the Aimline***
    - If a student has 3 or more data points consecutively *above* the aimline or the data points are inconsistent (i.e., both above and below), it means the intervention is having a positive impact and progress is being made. This alone is not a sufficiently deep analysis to determine if an adjustment in instruction is appropriate. To assess this, the team will need to determine if the gap is closing (go to Step 14).
  - ***3 or More Consecutive Data Points Below the Aimline, but Trendline has an Upward Trend***
    - If 3 or more consecutive data points are below the aimline, but the trendline has an upward trend, it means that sufficient progress is not being achieved. This alone is not a sufficiently deep analysis to decide any potential adjustment in instruction. To determine an appropriate adjustment in instruction, further analysis is needed (go to Step 15).
  - ***3 or More Consecutive Data Points Below the Aimline, and the Trendline is Flat or Downward***
    - When the trendline is below the aimline and on a flat or downward trend, this means that progress is not being made. The lack of progress can be the result of many things, so a structured and sequential process to look for the cause must be used (go to Step 16).

NOTES:

### Step 14: Determine if the Student is Making Enough Progress to Close the Gap

The ultimate goal for students in intervention is to close the gap between where the student is currently performing and the grade-level performance of peers. The chart of a student who is closing the gap will show a trend line that falls both above and below the aimline or that will intersect with the goal line before the end of the year (or other monitoring period of time).

#### Made Progress and Sufficient Growth to Close the Gap



If the team determines that the student's progress is at or above the aimline and the student is making progress sufficient to meet the goal, the team needs to make one of the following decisions:

1. Should the intervention recommendation be changed, i.e., should the student's intervention be changed from intensive to supplemental? Teams should follow decision rules for moving students between tiers.
2. Should the student be regrouped to work on a different skill? If the instructional focus is on a skill that is multiple grade levels below grade level core instruction, the team will want to consider conducting more assessment to determine the appropriate instructional focus for the student and regroup based on the new skill.
3. Should intervention continue as currently designed and implemented?  
Just because a student is showing progress does not mean that immediate action must be taken. Generally the team will want to continue the student in the current successful intervention until the goal for that instructional level is met. Once the student meets the goal, teachers should move to the next higher grade level for instructional materials

and level of progress monitoring. Teachers should repeat this process for increasing the level of instructional materials based on progress monitoring results until the student's progress has closed the achievement gap with peers. Once the student closes this gap, gradually decreasing the amount of support provided to the student should be considered. Continued progress monitoring will indicate whether decreased support is sufficient for student growth to continue.

4. Should intervention be discontinued and would core instruction be sufficient?

Having students learn skills to the point they can succeed with only core instruction is the goal of MTSS. When considering this decision, the team needs to ask questions such as:

- How close is this achievement to being within the On Track range (at or above the 25<sup>th</sup>ile) for the student's grade level? If the student's current level is considerably below the On Track range, it is likely the student will continue to need intervention.
- What are the next critical skills the student needs to learn? Knowing this allows the team to make informed decisions about the appropriate instructional focus for the student.
- What are the skills being taught within the core curriculum? Knowing this allows the team to understand and make informed decisions about the instructional match between what is being taught in core and in intervention.
- What level of support has been provided to allow this level of achievement? If a very high level of support has been provided to achieve the performance, the team may consider reducing the intervention intensity as opposed to immediately discontinuing intervention.
- How frequently should progress be monitored if intervention is discontinued and the student is only receiving core instruction? Even after a student has exited from intervention, it is important to check more frequently than just universal screening to make sure that the skills have generalized to the classroom and the student is still able to be successful.

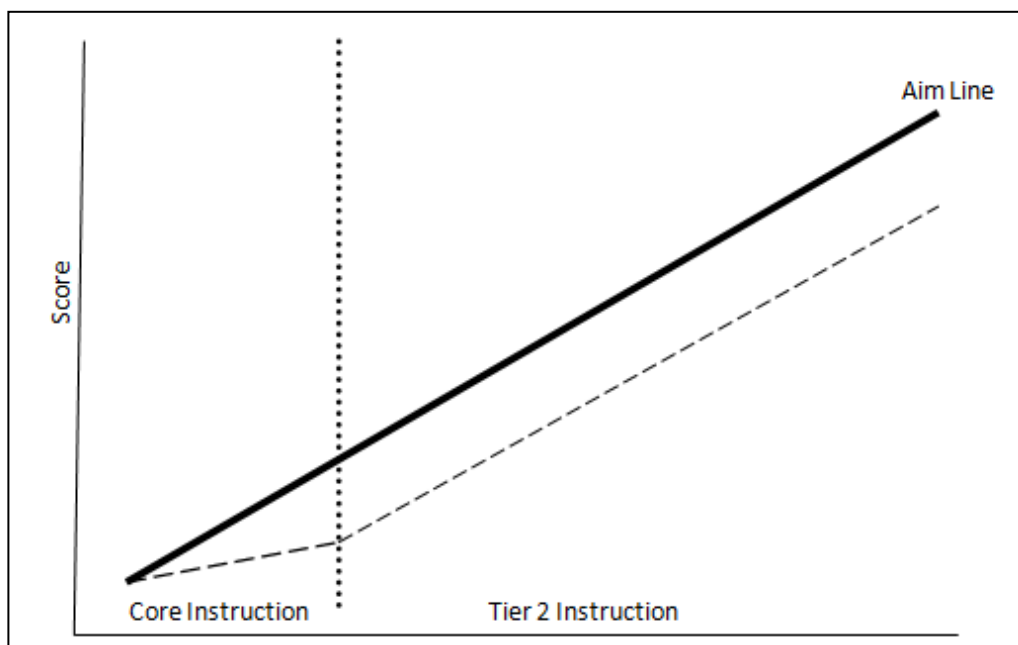
If a student is returned to core, then continued progress monitoring for a period of time is recommended in case a need re-emerges for additional support.

NOTES:

### Step 15: If the Student is Not Making Sufficient Growth to Close the Gap, then Intensify Instruction

If the graph of student performance shows an upward trending line that will not intersect with the goal line or aimline, then a student is improving, but at a rate that is insufficient to close the gap with peers.

#### Made Progress but Insufficient Growth to Close the Gap



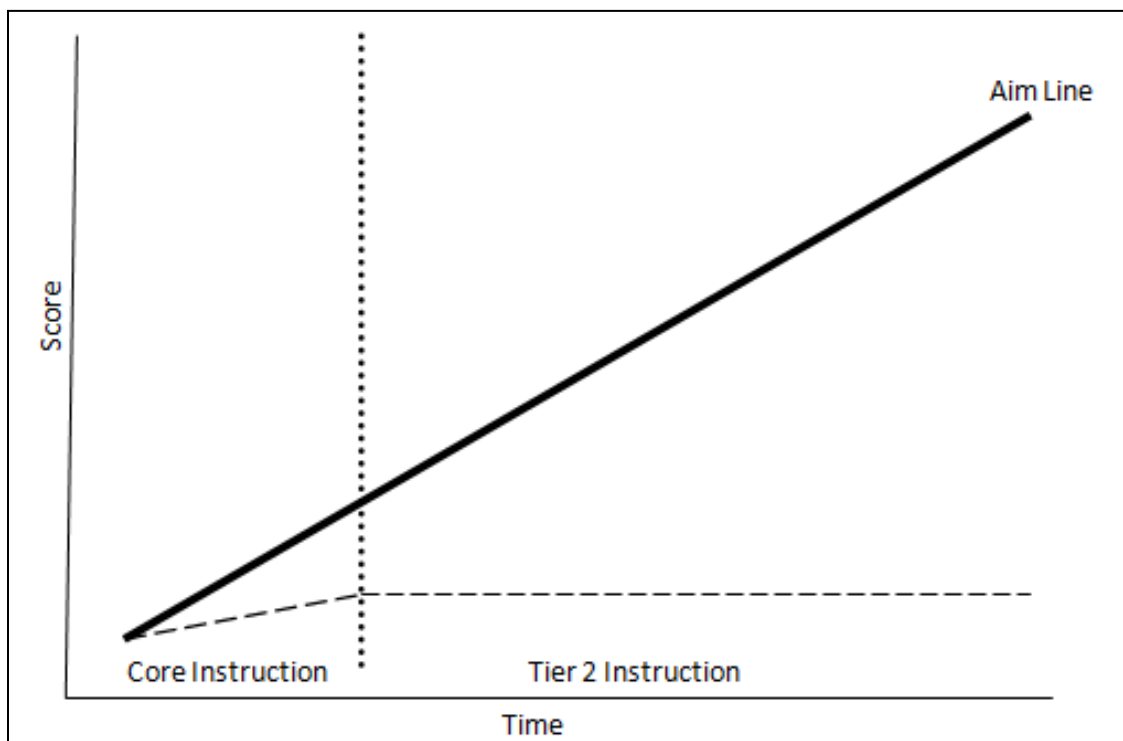
If the team determines the student is showing growth but that it is at an insufficient rate to close the gap, then the team needs to determine how to increase the intensity of the current instruction. Ways to intensify instruction include the following options:

- Check student's attendance to see if the student needs intervention to improve his participation in instruction;
- Increase the number of student responses in a minute by reducing group size;
- Increase the number of questions and error corrections the student receives in a minute;
- Increase the scaffolding by breaking the task down more or providing more structure so that the student can be successful;
- Spend more time modeling the "I do" and "We do" guided practice before the student practices independently;
- Increase the number of repetition cycles on each skill before moving on to see whether mastery is achieved with more practices;
- Use a more systematic curriculum so that skills are taught in a prescribed manner, with the teacher asking questions and cueing with the same language for each routine.

NOTES:

### Step 16: If Student is Not Making Progress, Customize the Intervention

If the graph of student performance shows a trendline that is flat or has a downward trend, then teams should consider customizing the intervention.



There are many factors that can influence whether a student makes progress, so it is important to have a systematic process for analyzing the cause, beginning with the most basic and easiest change. However, it is always important to remember that the protocol intervention must be taught with fidelity first. If the student is still not making progress, then the intervention can be customized one piece at a time.

In analyzing lack of progress, the team must look into each of these items in sequence:

1. First check the student's attendance to make sure that access to instruction is not the issue.
2. Next, check to ensure that the skill being progress monitored is the same as the instructional focus (what is being taught) of the intervention.
3. If the skill and the progress monitoring measure are consistent, check fidelity of instruction. This can be done by looking at the intervention log to check if the intervention was given as frequently as planned (i.e., daily), for the duration planned (i.e., 30 or 60 minutes), using the materials as designed, and that progress monitoring was done as planned (i.e., weekly).
4. If both of the previous are happening, next consider increasing the pace of instruction. Often teachers respond to the student having difficulty in learning by slowing down the pace of instruction, when in fact they need to increase the pace of instruction. Slowing down the pace of instruction can result in lower levels of student attention and

motivation, while a faster pace can keep students engaged. The pace of instruction is related to the number of student-teacher interactions per minute. For intensive intervention with groups of 3 or fewer, students should be expected to provide 5 correct responses per minute (via choral or individual responses).

5. Next, consider modifying the pace of intervention. For example, reducing the number of new skills introduced each week can slow the pace of intervention down. If new skills are being introduced at the rate of 5 new skills per week, consider introducing only 3 new skills per week and providing a greater amount of practice on each skill before moving to the next skill.
6. Ensure the alignment of programs. Teams need to ensure that vocabulary is used in the same way in both core and intervention, and that the skills are taught and practiced in the same way in all instructional settings for each student.
7. If all of the six previous steps have been completed and everything was in place as planned, the team should consider adjusting the instructional materials.
8. Consider moving the student to a different group with a different instructional focus.
9. Consider moving the student from supplemental to intensive intervention.

### Additional Assessment

Whenever students fail to make adequate growth on progress monitoring assessments, it may be an indication that additional diagnostic assessment needs to be conducted to obtain additional information about skill weaknesses. This would be a time when formal diagnostic assessments, such as Key Math III or STAR Math, might be used.

### Individual Student Problem Solving

When a student receiving intensive services fails to show progress, despite data-based adjustments to the intervention being provided, teams should consider the need for individual student problem solving to customize the intervention provided to the student. Teams will need to analyze all the data available regarding a student and develop hypotheses about the underlying causes of the student's lack of progress, so that a more individually customized intervention plan can be developed and implemented.

The individual student problem-solving process is what schools have traditionally used for general education interventions, often conducted by Student Improvement Teams (also known as SIT, SAT, TAT, CARE team, etc.). Within the MTSS model, the collaborative teams conduct the work of the General Education Intervention or Student Improvement Team (SIT). The collaborative team working to customize intervention for a student may decide that the data indicate that the student needs to be referred for evaluation for special education services.

At any time when the collaborative team suspects a student may be a student with an exceptionality, they must refer the student for an initial evaluation. Any parent request for a special education evaluation must be reported to the building administrator or to the

appropriate staff person as designated by district special education procedures. The MTSS should not delay a student from receiving a special education evaluation. A student does not have to move through all the tiers before a referral for a special education evaluation is made. Similarly, having received all tiers of instruction or needing Tier 3 instruction does not indicate of itself that a student should be referred for a special education evaluation.

NOTES:

### **Step 17: Update Student Intervention Log and Progress Monitoring Graph**

- Once any instructional adjustments have been completed, instruction and progress monitoring of the student's skill growth continues as in previous steps.
- The student intervention log and the progress monitoring graph need to be consistently updated, so that an accurate record of the interventions and their results can be maintained. It is critical that teachers document both the instruction that they are providing and the intervention sessions that each student actually attends.
- This cycle of assessment, adjustment, and adding to the graph and log continues as long as a student requires intervention.

NOTES: