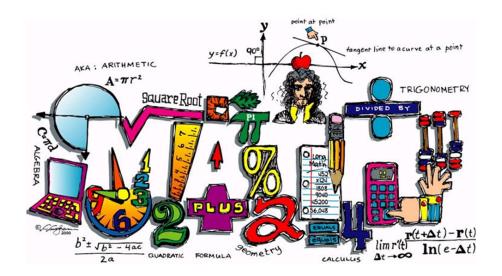
MATH K-1 INTERVENTION MANUAL



2022 - 2023

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WHAT IS RESPONSE TO INTERVENTION (RTI)?

RTI is a tiered approach to supporting all students in their learning. It focuses on implementing instructional interventions as a means of prevention and provides a framework for doing so. Students are regularly assessed and evaluated, both formally and informally in order to identify their strengths and areas in need of growth.

Based on these evaluations and observations, student will fall into one of the three tiers that are typical of the RTI model:

- **Tier 1** Classroom teachers will utilize different strategies and interventions within the core curriculum to address all students' educational needs. This will occur in whole-group, small-group and individualized settings.
- Tier 2- Classroom teachers will provide supplemental interventions that address
 the pre-requisite skills necessary for the Tier 1 instruction to students who are not
 progressing at a satisfactory rate. This will occur in a small-group or individualized
 setting.
- Tier 3 Math interventionists will provide identified students with targeted instruction on foundational number sense and place value skills in a small group setting.

In the event that students are still struggling after all interventions have been put into place, it may be necessary to meet with the I&RS Coordinator (Steve Bukowinski) and the I&RS team in order to create a plan for success.

Parents will be informed of how the Response to Intervention program works via the Parent Information Letter. Classroom teachers should send the Parent Information Letter-Response to Intervention (Appendices A3-A4 depending on the language the family speaks) home with students. Please do not send this letter home with students as part of a larger group of forms, as parents may get overwhelmed with the abundance of information and not pay attention to understanding the RTI process.

Administrators will be provided with a list of students who are known to require all three tiers of service (Tier 1, 2, and 3). Retained students will also be assessed for Tier 3 service eligibility. The Tier 3 Interventionists will fill any remaining available Tier 3 slots by servicing the needlest students in grades K-1. When there are available Tier 3 slots, the Intervention department will utilize LinkIt! data to identify students eligible for Tier 3 services.

Because the RTI model is dependent upon real-time classroom data, the placement of students within each of the tiers is fluid. As students master skills or show proficiency with grade level content they will require fewer interventions. At the same time, students who have been successful with one topic may begin to struggle with a different topic and thus will require additional support and intervention.

RESPONSE TO INTERVENTION FLOW CHART GRADES K-1

TIER 1

All students receive grade level instruction on the core curriculum (tier 1 interventions when applicable



TIER 2

Identified students receive targeted instruction on prerequisite skills



TIER 2

Teacher meets with Math Coach to discuss further tier 2 interventions for student



TIER 2

Student with supporting data is referred for Tier 3 intervention.



TIER 3

Math Interventionist provides tier 3 instruction in foundational math concepts and skills.



TTER 3

I&RS Committee Meeting





Refer student back to tier 3

CST Referral

^{*}A student may be in more than one tier at any given time. As a student progresses in one tier, they may no longer need that tier of intervention.

HOW ARE STUDENTS ASSESSED/MONITORED FOR RTI?

At the Tier 1 level, all students will participate in a **Universal Screening Process**.

Kindergarten

Students entering into Kindergarten in the 2022-2023 school year will complete a *Beginning of the Year* assessment during the month of October. The assessment will be administered individually by the classroom teacher or the building interventionist. How students perform on the assessment may determine their eligibility for tier 3 services.

Kindergarten students will also complete a computerized Diagnostic Assessment through the iReady program. This assessment will take place in November. The <u>i-Ready Diagnostic</u> is an assessment that tests students' mastery of mathematical concepts and topics based on their individual levels. As such, this assessment is not limited to grade-level content. It meets students where they are, assesses a range of skills, and lets you know exactly what students know and what they need to learn. Once students have completed the iReady Diagnostic, classroom teachers will be able to <u>analyze data</u> in order to determine which students need additional tier 1 and tier 2 supports. Any student scoring in the bottom 20% of the schoolwide data will be considered for Tier 3 services.

Grade 1

Initially, students entering into first grade in the 2022-2023 school year will complete a computerized Diagnostic Assessment through the iReady program. The <u>i-Ready Diagnostic</u> is an assessment that tests students' mastery of mathematical concepts and topics based on their individual levels. As such, this assessment is not limited to grade-level content. It meets students where they are, assesses a range of skills, and lets you know exactly what students know and what they need to learn. Once students have completed the iReady Diagnostic, classroom teachers will be able to <u>analyze data</u> in order to determine which students need additional support in below grade level skills in order

to be successful in first grade. These students will then be considered for Tier 2 and/or Tier 3 instruction.

In addition, students will also complete a district *Beginning of the Year Math Assessment* which will evaluate students' proficiency in the prerequisite skills for their grade level mathematical content. When applicable, the result of this assessment will be compared to the previous year's *End of the Year Math Assessment* (which evaluates the same skill set). Students who score a 66% or below on both the *End of the Year Math Assessment* and the *Beginning of the Year Math Assessment* will be considered for Tier 2 and possibly Tier 3 instruction.

Monitoring All Students throughout the School Year

As the school year progresses, teachers will continue to collect data on students in regards to RTI and the need for intervention based on classroom observations, students' performance on classroom assignments and assessments, as well as students' progress on the iReady personalized instruction path. All students will work on iReady for two 30 minute periods each week. The software will customize the Intervention to fit each student's profile. Reports and data received from the program can be used to modify classroom instruction and inform RTI. As mentioned, the RTI model is fluid and students' performance on their weekly iReady assignments may determine that there is a need for further intervention on a given topic.

Approximately halfway through the school year, the iReady Mid-Year Diagnostic assessment which will be administered to all students. Once completed, this second diagnostic assessment will give teachers the opportunity to analyze students' progress in regards to their current grade level, as well as progress made towards growth goals that were established by iReady in the beginning of the year. The i-Ready growth model sets two goals: Typical Growth and Stretch Growth.

- **Typical Growth:** the average annual growth of students at each grade and placement level. Typical Growth allows you to see how a student is growing compared to average student growth at the same grade and baseline placement level.
- **Stretch Growth:** the growth recommended to put students who placed below grade level on a path toward proficiency and students who placed on grade level on

a path to advanced proficiency levels. Students who are further behind have larger growth benchmarks to help them catch up, and it will take many of these students more than one year to achieve proficiency.

After the mid-year assessment, it is expected that student progress towards the typical growth goal will be at about 50% (as we are about 50% of the way through the school year). Students who are not at about 50% towards completing this goal will be considered for Tier 2 and possibly Tier 3 instruction.

TIER 1 INSTRUCTION

Tier 1 includes all students and features high-quality classroom instruction based on the New Jersey Student Learning Standards. At this level, differentiated strategies and activities are utilized to meet the needs of all learners. Tier 1 instruction includes whole-class, small group, and individual work with students.

What will this look like for students?

During tier 1 instruction, all students participate in the whole-class lesson. The lesson objective is new content that addresses the current grade level standards. Students will watch the Teacher Model and will then participate in Guided Practice examples allowing them to work through problems with the support of the teacher and their peers, as well as *Checks for Understanding*. Once students are comfortable with the content, they will complete assigned problems independently.

Based on responses during guided practice and *Checks for Understanding*, a student may be pulled during Independent Practice to work with the teacher individually or in a small group. The student will complete additional guided practice problems that address any misunderstandings. Once the student can successfully meet the day's objective, s/he may continue working independently.

What will instruction look like?

During tier 1 instruction, the classroom teacher plans and executes a lesson that addresses new grade level content through the use of the *Ready Classroom* program. Teachers will model problems for students and then engage students in guided practice problems, following a gradual release model. Teachers will observe students' to determine their levels of understanding and will use *Checks for Understanding* to determine which students (if any) require small group instruction. Once the teacher feels that most students have been successful with the daily objective, s/he will assign problems for the students to complete independently.

While the whole class works independently, the teacher may meet with individual students or a small group of students to complete additional guided practice problems or help clarify any misconceptions that students may have in relation to the daily objective.

Summary of Tier 1 Instruction

- → Whole class instruction provided daily to all students during the designated Math block.
- → Clear and concise instruction on new content that addresses a current grade level standard.
- → Follows the *Ready Classroom* program as well as the District pacing guide.
- → Teachers use *Checks for Understanding* to monitor students' progress and to inform the need for additional tier 1 supports
- → Classroom teacher provides additional tier 1 supports when necessary

Additional Resources

- Supporting All Students
- Small Group Instruction

TIER 2 INSTRUCTION

Students who do not make sufficient progress with grade-level instruction at the Tier 1 level, will be provided with targeted interventions at the Tier 2 level. Classroom teachers will implement Tier 2 Interventions in the classroom setting.

What will this look like for students?

During tier 2 instruction, students will sign on to iReady and complete assignments in "My Path." iReady is a computerized program aimed at individualizing instruction for students based on their needs (as determined by the <u>Diagnostic Assessment</u>). All students will complete assignments in "My Path" twice a week for 30 minutes each time.

In addition, students whose overall placement on the most recent iReady Diagnostic is one year behind grade level, or whose placement in the Algebra and Algebraic Thinking and/or Numbers and Operations domains is at least one year behind grade level will be pulled for Tier 2 intervention. Students will participate in a small group lesson with the classroom teacher that addresses below grade level prerequisite skills and/or standards. This lesson will take the place of one of the weekly 30 minute iReady periods.

When a student meets his/her Tier 2 intervention goal, the student can cease to receive the additional Tier 2 services and can participate solely in Tier 1. Response to Intervention is a fluid process. If a student is found to require Tier 2 Intervention at a later date, Tier 2 services can be reinstated.

What will instruction look like?

Twice a week for a 30 minute period, the classroom teacher will have all students sign on to iReady to complete lessons under "My Path." During this time, the teacher may work with individual students on the iReady lessons, especially if a student has been flagged by the program.

In addition, the classroom teacher will plan and execute lessons in a small group or individual setting that address prerequisite skills. These skills are necessary for students to be successful during tier 1 instruction. Teachers may utilize the Ready Prerequisites report to determine which skills to cover during tier 2 instruction. The classroom teacher will plan to meet with students and/or groups of students during the two 30 minute periods each week that the class is assigned to work on iReady "My Path."

If the student is not progressing via Tier 2 services (after implementing suggestions made by the Math Coach) the student can then be referred for additional Tier 3 services. Contact the Math K-1 Interventionist to discuss possible Tier 3 services. Please complete the referral form located in Appendix B8 and include copies of the following:

- I-Ready data
- BOY
- Unit Assessments
- Small group instruction Lesson Plans and Outcomes

Summary of Tier 2 Instruction

- → The teacher assigns students to work independently on iReady to complete lessons under "My Path."
- → Small group or individualized targeted instruction provided during the two whole-class iReady periods.
- → Targeted instruction involves choosing one area of weakness that is considered to be a prerequisite for success with grade level instruction in the classroom.
- → Tier 2 instruction is not reviewing or re-teaching the daily objective. It is purposeful, planned instruction that will address a particular students' weaknesses.
- → The teacher may use lessons from iReady or *Ready Classroom* and should monitor students' progress through *Checks for Understanding* and anecdotal notes.
- → If progress monitoring and data show that a student is not making progress with the strategies utilized in tier 2 intervention, the teacher should consult the Math Coach to discuss alternative approaches and/or interventions.

TIER 3 INSTRUCTION

Students in Kindergarten who have received Tier 1 and Tier 2 instruction and are still struggling, and students in Grade 1 who are identified as Tier 3 on the iReady Diagnostic, will be recommended for Tier 3 services. The Math K-12 Instructional Supervisor will review the Tier 2 documentation that the teacher has shared and decide if the student should remain at the Tier 2 service level or proceed to the next step. If the student is designated to proceed, the Math K-12 Supervisor will assign an Interventionist to assess the student. An Interventionist will provide students with targeted instruction based on the identified skills of need. Students who are not progressing with Tier 3 interventions may be considered for additional evaluation and services.

What will this look like for students?

During tier 3 instruction, students will work with a Math interventionist outside of the classroom. Students will participate in a small group lesson that addresses below grade level skills. Through intensive targeted instruction, students will master a sequence of skills aimed at solidifying their mathematical foundations so that they can successfully participate in tier 1 instruction.

Students will be considered for tier 3 instruction if they score one year below grade level or if they fall in the bottom 20% on the most recent *iReady Diagnostic*. Performance on benchmark assessments may also be used when identifying students.

What will instruction look like?

Students who qualify for tier 3 instruction will meet in a small group daily for 30 minutes. The Math Interventionists will follow the <u>Math Intervention Framework</u>. Individual lesson plans and tier 3 plans will be created using the <u>Math Sequence of Skills</u> to focus on specific goals to meet the needs of the student. Interventionists will graph student progress towards reaching their goals. Each student receiving Tier 3 services will have at least one

data point plotted on his/her graph per week. The weekly assessment should only take a few minutes from the session.

When all available slots have been allocated, additional referred students will be placed on a waiting list for services. Students should be receiving Tier 2 services while they wait for Tier 3 services to become available.

To monitor students' growth, teachers will use:

- iReady Comprehension checks
- District created assessments
- Anecdotal notes
- Interventionist created *Checks for Understanding*

Summary of Tier 3 Instruction

- → The teacher uses the Sequence of Skills checklist to create goals specific to the needs of the student based on data.
- → Targeted goals based on i-Ready data, BOY, EOY, Unit Assessments, Teacher Observations.
- → Instruction occurs in a small group setting and follows the Math Intervention Framework
- → Activities are conceptual and incorporate manipulatives in order to build a mathematical foundation
- → Each student's progress is monitored through various *Checks for Understanding*
- → Weekly graphing to monitor students' growth

MATH INTERVENTION FRAMEWORK

SPIRAL REVIEW

This activity should tap into previously taught, grade-level skills and strategies.

TEACHER MODEL

During the Teacher Model, the teacher will use a think aloud approach to model how to solve a given problem.

GUIDED/INDEPENDENT PRACTICE

During Guided Practice the teacher will guide students through problems and provide feedback as the students share their thinking and find solutions to problems.

During Independent Practice the students will work on problems independently while the teacher monitors their understanding.

CLOSURE

Teacher selects a problem to review with students and summarizes the lesson.

HOMEWORK

Homework assignments may address the skill currently being worked on, a previously learned skill, or fact fluency.

TIER 3 SKILLS PROGRESSION

Students who are identified as needing tier 3 interventions for math, often lack foundational math understandings and skills. Fluency is the ultimate goal but only when it comes as a result of a strong foundation and flexibility with numbers. We refer to this as the 3 F's of Math.

THE 3 F'S IN MATH

FOUNDATION

The first step in becoming proficient with math is an understanding of the concepts inherent in each skill. Developing this foundation requires the use of concrete and/or visual models and content presented using scenarios that students can relate to. At this stage, the "math" is informal with the formal procedures introduced only once the foundation is solidified.

FLEXIBILITY

Once students have a strong mathematical foundation, the next step in becoming proficient with math is building a student's flexibility with numbers. This means that students understand that quantities can take different forms and can be represented multiple ways. This flexibility allows them to learn various math strategies, understand why they work, and use them effectively.

FLUENCY

Fluency refers to the ability to apply procedures accurately and efficiently. It does not imply that students should know something from memory (when this is the expectation, the standards clearly state "Know from memory...") Students rely on their flexibility with numbers and operations to compose and decompose quantities to arrive at an answer in a way that makes sense to them. This is considered a demonstration of fluency.

During tier 3 instruction, Math interventionists will address students' foundational math skills using the below progression:

MATH SEQUENCE OF SKILLS

	Skill	Check
1.	Rote counting to 20 from 1	□ yes □ no
2.	Rote counting by tens to 100 (for Grade 1 students)	□ yes □ no
3.	Rote counting to 20 from any number	□ yes □ no
4.	Rote counting to 100 from any number (for Grade 1 students)	□ yes □ no
5.	Counting sets: 1-5	
	a) Given a concrete model or picture, the student can assign a value to the set (with the goal of subitizing)	□ yes □ no
	b) Given a number verbally, the student can draw or count out the given number	□ yes □ no
6.	Counting sets: 6-10	
	a) Given a concrete model or picture, the student can assign a value to the set	□ yes □ no
	b) Given a number verbally, the student can draw or count out the given number	□ yes □ no
7.	Counting sets: 11-20 (for Grade 1 students)	
	a) Given a concrete model or picture, the student can assign a value to the set	□ yes □ no
	b) Given a number verbally, the student can draw or count out the given number	□ yes □ no
8.	Recognizing numerals: 1-5	

	a) When given a number card, the student can name the number	□ yes □ no
	 b) When given a number verbally, the student can identify the number from a set of number cards 	□ yes □ no
	c) When shown a set of objects, the student can identify the number from a set of number cards	□ yes □ no
9.	Recognizing numerals: 6-10	
	a) When given a number card, the student can name the number	□ yes □ no
	b) When given a number verbally, the student can identify the number from a set of number cards	□ yes □ no
	c) When shown a set of objects, the student can identify the number from a set of number cards.	□ yes □ no
10.	Comparing numbers: 1-10	
	a) When given two sets of objects, the student will use the terms greater than, equal to, or less than to compare the first set to the second set	□ yes □ no
	b) When given two numerals between 1 and 10, the student will use the terms <i>greater than</i> , <i>equal to</i> , or <i>less than</i> to compare the first numeral to the second numeral	□ yes □ no
11.	Writing numbers: 1-10	□ yes □ no
12.	Decomposition (Many ways to make a number): 1-5	
	a) The student can decompose a number, any way, using a concrete model	□ yes □ no
	b) Given one of the parts, the student can decompose a number to determine the other part, using a concrete model	□ yes □ no
13.	Decomposition (Many ways to make a number): 6-10	
	a) The student can decompose a number, any way, using a concrete model	□ yes □ no

	b) Given one of the parts, the student can decompose a number to determine the other part, using concrete models.	□ yes □ no
	c) When given a number 1-9, the student can determine the other part to make $10 \rightarrow$ Complements of 10 (for Grade 1 students)	□ yes □ no
14.	Putting together/Taking away: within 5	
	a) Given a scenario, the student can use manipulatives to model and arrive at the correct answer	□ yes □ no
	b) Given a scenario, the student can create a model and connect the model to a number sentence	□ yes □ no
	c) Given a number sentence, the student can create a scenario to which it corresponds	□ yes □ no
15.	Putting together/Taking away: within 10 (for Grade 1 students)	
	a) Given a scenario, the student can use manipulatives to model and arrive at the correct answer	□ yes □ no
	b) Given a scenario, the student can create a model and connect the model to a number sentence	□ yes □ no
	c) Given a number sentence, the student can create a scenario to which it corresponds	□ yes □ no
16.	Understanding teen numbers	
	a) The student understands a teen number as ten ones and some more ones (K.NBT.1)	□ yes □ no
	b) The student understands a teen number as a ten and some ones (1.NBT.2b)	□ yes □ no
17.	Comparing 2-digit numbers	
	a) Given two 2-digit numbers, the student can create concrete models and can compare the first number to the second using the words <i>greater than</i> , <i>equal to</i> , or <i>less than</i>	□ yes □ no
	b) Given two 2-digit numbers, the student can use place value understanding to compare the first number to the second and can describe the comparison using the words <i>greater than</i> , <i>equal to</i> , or <i>less than</i> .	□ yes □ no

EXITING TIER 3

When the student demonstrates mastery of all the requisite foundational math skills, the interventionist will reassess the student to determine tier 1 readiness. This assessment will address the skills covered during tier 3 instruction as well as how these skills are addressed/applied in tier 1 (when applicable). If a student achieves an 80% or above, the interventionist can make the recommendation for the student to exit the program. The interventionist, along with the Math Supervisor/Coach, will meet with the teacher to discuss the student's transition out of tier 3. This process may include having the interventionist conduct student observations in the classroom during tier 1 instruction.

Once the decision is made to exit the student, the interventionist will notify Administration, the Math Supervisor, and the parent via a letter (Good News Exit Letter), and a phone call home.

ADDITIONAL RESPONSIBILITIES OF TIER 3 INTERVENTIONIST

Tier 3 services for Grade 1 should begin by Wednesday, October 12, 2022.

Tier 3 services for Kindergarten should begin by December 5, 2022. The math interventionist should push into the classroom until Tier 3 services begin on December 5, 2022.

Any changes in student caseload must be communicated to the Math K-12 Instructional Supervisor immediately (via e-mail). Sample changes that should be reported include a student transferring to another school within the district or a student transferring out of the district. It is important to keep the Math- K-12 Instructional Supervisor updated so that students can be provided with services at their new school, and so students who are on the waiting list for Tier 3 services can be provided with the help they need.

How to Write and Track Student Goals

Once a student is selected to receive Tier 3 intervention, the interventionist will complete the Tier 3 plan. The interventionists will utilize the <u>Math Sequence of Skills</u> checklist to determine where instruction should begin. They will then come up with a list of objectives that will be used to master the identified skill from the sequence. The plan will be revisited regularly and reviewed every 12 weeks to assess student progress and make any necessary changes.

Interventionists will use the department's <u>Intervention Lesson Plan Template</u> to plan specific activities and document the outcome daily. Each daily lesson should address the skill that students are working towards and should have an objective and a *Check for Understanding* which will be used to assess student's progress. In addition, the interventionist will track the weekly hours of service and cumulative hours for each student. Please see Appendix C4 for Lesson Plan Template.

In order to monitor student's progress, the interventionist will administer a summative weekly assessment that addresses the objectives covered that week. The student's score should be graphed in order to show progress towards mastering a skill. Each student receiving Tier 3 services should have at least one data point plotted on his/her graph per week. All Interventionists are required to use the department's <u>Graphing Template</u> Please see Appendix C13 for a sample of the template.

Interventionists should also track the student's growth after each lesson on the *Anecdotal Notes* section of the lesson plan document.

Communication with Parents

When an Interventionist takes on a new case, she/he will send out a Parent Notification for Tier 3 services form (see Appendices C2-C3 depending on the language the family speaks). The Interventionist cannot begin to see an assigned student for pull out services without a signed parent consent form. If there is a delay with obtaining a parental signature, it is the Interventionists responsibility to contact the parents via phone. If obtaining parental permission for services becomes an issue, please contact the building principal and the Math K-12 Instructional Supervisor for assistance. Within two weeks of starting Tier 3 services, the Interventionist should reach out to the parents (by phone or via a face to face meeting) to introduce themselves and discuss the Tier 3 plan.

Interventionists should use the Tier 3 Parent/Classroom Communication form found in Appendices C5 (English version) and C6 (Spanish version), to keep parents and the classroom teacher informed on the progress of the Tier 3 students on a monthly basis. These forms should be completed and sent monthly. A copy of this form must be shared with the Math Supervisor (on the Google Drive) and classroom teacher. This form must be posted to the designated Google Drive folder with the required monthly paperwork.

Paperwork

Paperwork should be maintained on the Google Drive. By the first Friday of each month, all paperwork from the previous month should be posted to Google Drive. This includes monthly schedules, lesson plans, daily outcomes, graphs, Progress Report Forms, assessments, parent letters/notifications, and Tier 3 Plans.

Tier 3 Data-Driven Lesson plans will be submitted to each building principal on a bi-weekly basis. Each submission should include the previous week's plans (with outcomes listed) and the upcoming week's plans (which will not yet have the outcomes listed).

Monthly paperwork must be submitted per student. Even if an Interventionist is seeing students in a group, he or she must post a copy of the paperwork for each child to the designated folder on the Intervention Google Drive.

Clearly document each missed intervention session on the Tier 3 Data-Driven Lesson Planning form. Provide a reason for the missed session.

The Interventionist Team at each building will meet with the Math Supervisor once a month during a PLC to discuss students' progress/lack of progress. Students that have been receiving Tier 3 Intervention for an extended period of time, do not have to be referred to I&RS as long as they are making reasonable progress. Students should be progressing on specific skill measures (such as the Tier 3 Plan goal) and more objective and broad measures of growth (such as the i-ready, BOY, Unit Assessments data).