



National Center  
on Response to  
Intervention

# RTI and Mathematics

**1. Question:** My school district just began implementing RTI this school year, 3 years ahead of the New York State mandated 2012 deadline. This school year we focused on reading and behavioral tier 2/3 interventions. Should we begin implementing math tier 2/3 intervention programs this year, next year or wait until the reading and behavioral interventions are on solid ground? Do you have any recommendations of math programs? Do you have any recommendations for schools (on the East Coast) that are doing math interventions on tier 2/3 as well?

**Answer:** 1. I would recommend going ahead in mathematics next year... but not all grade levels. I might suggest starting either with the primary grades, or with grades 5–8, in terms of algebra readiness. Many states and districts are focusing on 5–8 because so many students nationwide struggle with algebra and lack foundational ideas and procedures related to rational number, in particular.

2. The Center cannot recommend either curriculum programs or assessments. However, you can use the [What Works Clearinghouse](#) and the resources of the [National Center on Response to Intervention](#) for ideas on both a) any curricula that have solid empirical support (right now these are only available from the What Works Clearinghouse) and b) assessments (there are a few in mathematics on the National Center website). I know there is some work going on in Oregon, but that is far away for you.

**2. Question:** How do you put math RTI in a master schedule when you have 3 tiers of instruction for reading already in the master schedule for elementary? I do not know how to add two additional tiers for math and still teach other core subject areas.

**Answer:** This is a critical issue with no easy answer. I also would consider use of after school time, perhaps as states begin implementing the Race to the Top initiative, which calls for more academic learning time, including a longer school day.

**3. Question:** I'm wondering if, in addition to best practices, Dr. Gersten would be able to provide specific information about evidence-based interventions that are available for middle and high school special education students who are functioning at least a couple years below grade level.

**Answer:** I can't make recommendations due to Federal law. Additional information on this topic can be obtained from a webinar conducted by the National Center on Response to Intervention, entitled "Interventions in RTI," which can be accessed on the [Center's website](#).

**4. Question:** Is it appropriate to try to help students access the general education curriculum in the area of math, when cognitively it seems that this curricular area in particular is not as conducive to this as other areas?

**Answer:** This is a tricky issue and currently districts are experimenting with ways to do this. One is double dose mathematics courses in middle school. In theory, these cover grade level content but also include one period of related foundational work on below grade level content. For example, division and multiplication are reviewed when students are working on proportions and proportional reasoning so that they can follow the lessons. This remains an unresolved issue for students who are years below grade level.



U.S. Office of Special  
Education Programs



**5. Question:** Secondary scheduling makes it difficult to remain a part of general education curriculum and provide the specialized instruction they need, as there is limited time to do this. I am particularly interested in Dr. Gersten's thoughts on students continuing to remain in general education in the later elementary and secondary level, when math becomes more abstract and conceptually difficult, or is it more appropriate to work with effective interventions outside of general education to close the gap?

**Answer:** *There is no clear policy on this right now. It will become a cutting edge issue.*

**6. Question:** As School Psychologists, how can we best align our assessments of math achievement with state standards?

**Answer:** *I think states and districts need to move in this direction, following some of the broad guidelines we describe in the Practice Guide. Use the major Standards for the year and sample from them for a screening and progress monitoring measure. This is work for a team of school psychologists, hopefully on a state or countywide basis. This will become more doable with the Core Common Standards in the future.*

**7. Question:** What progress monitoring tools do you suggest for schools that use the more constructivist mathematics programs K–6?

**Answer:** *I know of none developed. But I would check publishers' websites, making sure they offer some reliability and validity data.*

**8. Question:** We know that some students do not learn using the constructivist approach so what programs do you recommend for our built-in 45 minute a day intervention time for students struggling in mathematics? The reason we are asking about published programs, ones that you purchase, is that some of our teachers do not have the depth of knowledge in mathematics to be able to work with students in small groups like we do with reading.

**Answer:** *I can't recommend programs because of Federal law. There are programs that are quite traditional and ones that do address some of the mathematical ideas behind the procedures that are scripted. However, some type of PD for interventionists is likely to be necessary, even with the more traditional programs so that students gain a sense of the mathematical ideas that are behind the array of procedures they are being taught. These types of PD programs seem to be in development and I would look for them.*

**9. Question:** Where do you start with a child that went through all the tiers last year and did not qualify for special education and is still struggling (approximately 1 ½ to 2 years behind in math)?

**Answer:** *This student still needs intensive intervention that is tailored to her/his needs and rate of progress. It is reasonable for special education and school psychologists to help craft such a program. This is now totally legal and appropriate and a goal of RtI.*

**10. Question:** What is your opinion of Singapore Mathematics, the curriculum?

**Answer:** *I can't express an opinion in this context due to Federal law.*

**11. Question:** What screening tools are available for K–5 and 6–8?

**Answer:** *Check the [Screening Tools Chart](#) on the National Center on Response to Intervention website. There are some tools available, and the Center appraises the technical quality but only a few have been evaluated to date.*

**12. Question:** Do you have any specific intervention suggestions for math?

**Answer:** *Information on this topic can be obtained from webinars conducted by the National Center on Response to Intervention: "[Interventions in RTI](#)" and "[RTI and Mathematics](#)."*

**13. Question:** Do you have a recommendation of a commercially-based measure to use for math? We have looked at AIMSweb and iSTEEP but money is a factor at this point in time. Would you recommend CBMs based on state standards as a good screening?

**Answer:** *Yes, I would as long as all major state standards are included. It would take a while to develop, but I believe it is doable. It would be great to do at a state level.*

**14. Question:** Given recommendation # 3 about what makes quality intervention instruction, do you have any intervention curricula programs that you highly recommend for K–8 math?

**Answer:** *I can't express an opinion in this context due to Federal law.*

**15. Question:** Can you talk about your thoughts about the quality of AIMSweb math progress monitoring tool? What do you think about the new probes for math?

**Answer:** *I can't express an opinion in this context due to Federal law. I would recommend that you check the [Progress Monitoring Tools Chart](#) on the National Center on Response to Intervention website. The Center appraises the technical quality on a variety of progress monitoring tools.*

**16. Question:** In my district, I am a tier 3 interventionist but am split between 2 schools. I feel I can't do my intervention with fidelity. Does intervention have to be daily and how much time?

**Answer:** *For guidance on implementing interventions, view resources developed by the National Research Center on Learning Disabilities (NRCLD) on this topic. To access the resources, visit [NRCLD's website](#).*

**17. Question:** Would you recommend AIMSweb Test of Early Numeracy, M-CBM and M-CAP (which is an assessment of concepts and applications) for screening for all students and progress monitoring for those who require tier 2 and 3 instruction? The M-CAP is leveled by grade and based on the NCTM Focal Points.

**Answer:** *I can't recommend specific products, but you seem on the right track. I would recommend that you check the [Progress Monitoring Tools Chart](#) on the National Center on Response to Intervention website. The Center appraises the technical quality on a variety of progress monitoring tools.*

**18. Question:** If a school was looking to adopt a new core curriculum for math, do you have any suggestions about what to use? There haven't been a lot of experimental studies looking at core curriculums.

**Answer:** *I am not allowed to do this in my role with the Center, but I can suggest for grade one reading the following report on the IES website: "[Evaluation of Early Elementary Math Curricula](#)."*

**19. Question:** What benchmark assessments would you recommend for a 3 Tier Math Model for grades K-8?

**Answer:** *I would seriously consider using below grade level assessments and some wide range assessment of mathematics proficiency.*

## National Center on Response to Intervention

If you have comments and questions about this workgroup and its activities, please visit our website [www.rti4success.org](http://www.rti4success.org) or contact The National Center on Response to Intervention at [rticenter@air.org](mailto:rticenter@air.org).

This report was produced under U.S. Department of Education Cooperative Agreement #H326E070004 with the American Institutes for Research. Grace Zamora Durán and Tina Diamond served as the project officers. The views expressed herein do not necessarily represent the positions or policies of the Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred.

1000 Thomas Jefferson St. NW, Washington, DC 20007  
Ph: 877-RTI-4ALL | TTY: 877-334-3499 | Fax: 202-403-5001

