Module Home

**Outline­**

**MTSS/RTI**:

Mathematics

* Module Description: This module describes the MTSS, or RTI, framework as applied to mathematics. It includes discussions of how MTSS and RTI are related, as well as a description of instruction, assessment, and data-based decision making at each level of intensity: Tier 1, Tier 2, and Tier 3 (est. completion time: 2.5 hours).

Challenge

* Video: Two years ago, the staff at Lyle Elementary School decided to…

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Initial Thoughts

* What is RTI for mathematics?
* How can teachers effectively implement RTI for mathematics?

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Perspectives & Resources

* Module Objectives
* Have an understanding of the MTSS/RTI framework as it applies to mathematics
* Be familiar with the main features or components of MTSS/RTI
* Be able to identify the differences in instruction at each tier
* Understand the importance of making data-based instructional decisions

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* Page 1: Overview of RTI
* Teachers know that if students are to create a foundation for…
* Research Shows
* Link: multi-tiered system of support (MTSS)
* For Your Information
* RTI serves two primary purposes… [bullet points]
	+ Link: IQ-achievement discrepancy model [definition]
	+ Link: pre-referral [definition]
* Did You Know?
	+ Link: common characteristics [drop-down menu]
		- Link: mathematics learning disability (MLD) [definition]
* Video: In the video, Tessie Rose Bailey, a technical assistance provider…
* Tiers of Support
* Video: The movie illustrates the number of students in the average…
* Link: Every Student Succeeds Act (ESSA) [definition]
* Link: Individuals with Disabilities Education Act (IDEA) [definition]
* In this module, we will… [bullet points]

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* Page 2: The Features of RTI
* Although schools might implement RTI in different ways, there are…
* RTI Features [table]
	+ Link: evidence-based practices [definition]
	+ Link: formative assessment [definition]
* Video: Watch the video to gain a clearer understanding of the…
* Elementary versus Middle and High School
	+ Audio: David Allsopp discusses how RTI differs at the elementary…
	+ Audio: Brad Witzel discusses how RTI differs at the elementary…
	+ Myth/Fact [table]
* Importance of Collaboration
	+ He also elaborates on the four steps below that… [bullet points]
	+ Audio: Brad Witzel discusses the importance of collaboration…

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* Page 3: Universal Screening
* The administration of an assessment to every student in a classroom…
* Frequency of the Screening
	+ Time Administered/Purpose [table]
	+ For Your Information
* Selecting a Measure
	+ Link: curriculum-based measurement (CBM) [definition]
	+ Link: general outcome measurement (GOM) [definition]
	+ Computation Probe/Concepts and Applications Probe [table]
	+ Regardless of the universal screening measure a… [bullet points]
	+ For Your Information
		- Link: Click to use this tool chart [web page]
		- Audio: Brad Witzel highlights the need for better universal…
	+ Administering a Measure
		- Link: alternate forms [definition]
		- Audio: David Allsopp discusses how time, staffing, and…
	+ Criteria for Identifying Struggling Students
		- Link: benchmarks [definition]
		- Audio: Listen as Lynn Fuchs explains the importance of…

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* Page 4: Instruction
* Effective instruction is a cornerstone of the RTI framework…
* High-Quality Instruction
	+ Standards-based curriculum
		- Link: Common Core State Standards for… [definition]
		- Additionally, the CCSSM… [bullet points]
	+ Evidence-based practices (EBPs)
		- Link: scientifically based research [definition]
		- Among the benefits of using EBPs… [bullet points]
		- For Your Information
* Increasingly Intensive Levels of Support
	+ Tier 1: Core Instruction
		- Evidence-Based Practice/Definition [table]
		- Link: High-Quality Mathematics Instruction: What Teachers Should Know [IRIS Module]
	+ Tier 2: Supplemental Intervention
		- Link: standard protocol [definition]
		- Link: problem-solving [definition]
		- Group Size/Length of Intervention [table]
		- Audio: Brad Witzel discusses the importance of not ending…
		- For Your Information
			* Audio: David Allsopp suggests considering the…
		- Link: Click for a list of web-based… [drop-down menu]
			* Link: Best Evidence Encyclopedia [website]
			* Link: Center on Instruction [website]
			* Link: Doing What Works [web page]
			* Link: Evidence-Based Intervention… [web page]
			* Link: National Center on Intensive… [website]
			* Link: Promising Practices Network [web page]
			* Link: What Works Clearinghouse [website]
	+ Tier 3: Intensive, Individualized Intervention
		- Change/Definition [table]
		- For Your Information
			* Link: Click to learn more… [drop-down menu]
				+ Assessment/Purpose [table]
				+ For Your Information
				+ Link: The Pre-Referral Process: Procedures for Supporting Students with Academic and Behavioral Concerns [IRIS Module]
		- Link: Intensive Intervention (Part 1): Using Data-Based Individualization to Intensify Instruction [IRIS Module]
	+ Comparison of Instruction at Each Tier
		- Tier 1/Tier 2/Tier 3 [table]

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* Page 5: Progress Monitoring
* Progress monitoring is a form of assessment in which student learning…
* It is used in the following ways at the different levels… [bullet points]
* These assessments are useful because… [bullet points]
* Audio: Brad Witzel discusses why it is important to use a curriculum…
* Link: mastery measurement [definition]
* For Your Information
* Computation Probe/Concepts and Applications Probe [table]
* For Your Information
	+ Link: Click to use this tool chart [web page]
	+ Audio: David Allsopp discusses an option for assessing…
* Keep in Mind
	+ Audio: Lynn Fuchs talks more about the benefits of using…
* Administering, Scoring, and Graphing Progress Monitoring Probes
	+ Administering [drop-down menu]
		- For Your Information
	+ Scoring [drop-down menu]
		- Link: Elementary computation probe… [drop-down sample]
		- Link: Secondary algebra probe… [drop-down sample]
		- Audio: Lynn Fuchs points out several issues that school…
		- Audio: Brad Witzel discusses the reasoning behind…
	+ Graphing [drop-down menu]
		- For Your Information
	+ Link: Progress Monitoring: Mathematics [IRIS Module]
	+ Link: RTI: Progress Monitoring [IRIS Module]
	+ Activity
		- Link: Student A: Elementary Student [drop-down sample]
		- Link: Student B: Secondary Student [drop-down sample]

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* Page 6: Evaluating Student Performance
* As we have explained, one of the purposes of RTI is to…
* Rate of Growth
	+ Link: IRIS Slope Calculator [pop-up tool]
	+ The teacher should compare each student’s rate of… [bullet points]
	+ For Your Information
	+ Activity
		- Link: Student A: Elementary Student [drop-down menu]
		- Link: Student B: Secondary Student [drop-down menu]
* Performance Level
	+ By doing so, the teacher can determine whether… [bullet points]
	+ Example
		- Link: Description of Ian’s Graph [drop-down menu]
	+ Activity
		- Link: Student A: Elementary Student [drop-down menu]
		- Link: Student B: Secondary Student [drop-down menu]
	+ For Your Information
		- Link: IRIS Short-Term Goal Calculator [pop-up tool]
		- Link: Calculating a short-term goal [drop-down menu]
* Dual Discrepancy
	+ When teachers use this approach, they can… [bullet points]
	+ Performance Level/Rate of Growth/Outcome [table]
	+ Audio: Lynn Fuchs outlines how to determine whether a student…
* When to Use Each Indicator
	+ Level of Support/Indicator(s)/When to Evaluate [table]
	+ Activity
		- Link: Click to begin [drop-down menu]

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* Page 7: Data-Based Decisions
* *Data-based decision-making* is the process of using data…
* Indicating Instructional Supports
* Discontinuing Instructional Supports
	+ Link: round of intervention [definition]
	+ For Your Information
		- Link: individualized education program (IEP) [definition]
		- Link: Intensive Intervention (Part 2): Collecting and Analyzing Data for Data-Based Individualization [IRIS Module]
	+ Performance Level: 20/Slope: 0.4 [table]
	+ Audio: Listen as Diane Bryant describes how teams make…
	+ Activity
		- Link: Student 3 [drop-down menu]
		- Link: Student 4 [drop-down menu]

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* Page 8: Fidelity of Implementation
* Throughout the RTI process, it’s important that schools and districts…
* Link: fidelity of implementation [definition]
* Link: Lyle Elementary RTI Manual [PDF]
* Link: East High School RTI Manual [PDF]
* Fidelity Variables
	+ As is outlined in the table below, fidelity checks… [bullet points]
	+ Fidelity Variables [table]
		- Link: standard checklist [definition]
	+ Link: Evidence-Based Practices (Part 2): Implementing a Practice or Program with Fidelity [IRIS Module]
	+ Audio: David Chard talks about two components of RTI…
	+ Ms. Wilkes example
	+ Ms. Sutton example
	+ Mr. Chandler example

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* Page 9: Implementation at Lyle Elementary
* In the Challenge, you learned that for the past two years…
* Did You Know?
* Link: Lyle Elementary RTI Manual [PDF]
* Universal Screening
* High-Quality Instruction
	+ Link: Click to view one of Ms. Shockley’s… [drop-down menu]
* Progress Monitoring
	+ Link: TaShonda [drop-down menu]
	+ Link: Luis [drop-down menu]
	+ Link: Olivia [drop-down menu]
	+ Link: Jacob [drop-down menu]
* Data-Based Decisions (Tier 1)
	+ Student/Does Performance Level Meet Criteria?/Does… [table]
* Fidelity of Implementation
	+ Link: Fidelity of Implementation: Selecting and Implementing Evidence-Based Practices and Programs [IRIS Module]
* Data-Based Decisions (Tier 2)
	+ Link: Luis [drop-down menu]
	+ Link: Olivia [drop-down menu]
	+ Link: Jacob [drop-down menu]
	+ Audio: Diane Bryant discusses a number of the issues that…

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* Page 10: Implementation at East High School
* In the Challenge, you learned that for the past two years…
* Did You Know?
* Link: East High School RTI Manual [PDF]
* Universal Screening
* High-Quality Instruction
	+ Audio: Brad Witzel discusses the benefits of creating a flextime…
	+ Audio: David Allsopp discusses the advantages of scheduling by…
* Progress Monitoring
* Data-Based Decisions
	+ Student/Does Performance Level Meet Criteria?/Does… [table]
* Fidelity of Implementation
	+ Link: Fidelity of Implementation: Selecting and Implementing Evidence-Based Practices and Programs [IRIS Module]

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* Page 11: References & Additional Resources
* Suggested module citation
* References
* Additional Resources
* Page 12: Credits
* Content Contributors
* Expert Reviewers
* Module Developers
* Module Production Team
* Media

Wrap Up

* Summary of the module
* Video: Click on the movie for a summary of the main features of RTI…
* Revisit your Initial Thoughts responses

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Assessment

* Take some time now to answer the following questions.

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You Have Completed This Module

* Give Us Your Feedback
	+ Link: Module Feedback Form
* Professional Development Hours
	+ Link: IRIS PD Options
* Related Resources [link]