Section 1: Multi-Tiered Systems of Support

In recent years it has become evident that students' low academic achievement is correlated with poor behavior. Which one begets the other is not entirely clear, but thoughtfully addressing both in a "holistic, mutually reinforcing system may result in the most substantial student gains" (Hanover Research, 2014, p. 4). Multi-Tiered Support Systems (MTSS) are designed to do just that as they integrate academic and behavioral interventions to meet students' specific academic and social and emotional needs in real time. The main goal of MTSS is to close the achievement gap; it "...is an effective and efficient approach to improving students' academic and behavioral experience in schools" (Olsen, Parikh-Foxx, Flowers & Algozzine, 2016, p. 160). In an MTSS framework, interventions aimed at skill development increase in intensity and individualization as students move through the tiers (Hanover Research, 2014, p. 4). These interventions are most effective when they are in rapid response to evident student needs and are also culturally sensitive, meaning that "the activities and discussions... reflect the cultural backgrounds of the students and their families" (Olsen, Parikh-Foxx, Flowers & Algozzine, 2016, p. 160).

The following interactive literature review tables are organized in three sections. The first section provides definitions and explanations of the key concepts related to MTSS. The second section focuses on research-based Tier 1 practices that teachers can employ in their classrooms to optimize students' strengths and address students' needs. The third section addresses MTSS and Trauma-Informed Practices.

What are RTI, PBIS, and MTSS?		
Main Ideas	Additional Information	Resources

It is important to understand how these different interventions relate to one another in the effort to integrate academic and behavioral practices to best meet student needs.	• **Response to Intervention (RTI)** is a systematic, data-driven approach to instruction designed to address the academic needs of all students. RTI focuses on effective, high-quality instruction and early intervention where individual students who are struggling receive interventions that are aimed at helping the students develop the skills necessary to yield positive academic and social outcomes.
	
	• The interventions employed in RTI that focus on small groups or individual students should be supplements to the high-quality, **culturally sensitive instruction** that happens in the whole group setting (Hanover Research, 2014, p. 10).
	
	• In order for RTI to be effectively implemented on a campus consider the following suggestions:
	  o **Collaboration** and a sense of shared responsibility among all educators and adults on a campus are required.
	  o The full range of a school's resources must be **accessible and coordinated** with the resources of both the district and the community, including students' families.
	  o Thoughtful and thorough **analysis of how students are responding** to both instruction and
		[MTSS: A Framework for Every Student](#)
		
		[What is MTSS?](#)
		
		[RTI Center for Education Services](#)
		
		[California Definition of MTSS](#)
		
		[Colorado Multi-Tiered System of Supports](#)

What are RTI, PBIS, and MTSS?		
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	interventions must take center stage as it informs instructional decisions--both the day-to-day and in the long term.
	
	• **Positive Behavioral Interventions and Supports (PBIS)** is often called School-Wide Positive Behavioral Supports (SWPBS) and, as the name implies, is characterized by a preventative and proactive approach to behaviors that detract from learning. PBIS aims to support the growth of the whole child by addressing the **social and emotional** needs of students.
	
	• PBIS frameworks vary greatly from campus to campus, district to district, but they all tend to **share the following goals**:
	  o Development of a trusting school culture,
	  o Articulation of expected behaviors,
	  o Prevention of problem behavior,
	  o Recognition of appropriate behavior,
	  o Collection of data regarding observed behavior and settings in which it occurs, and
	  o Investment in the systems and support to effectively implement and maintain PBIS Programs (Hanover Research, 2014, pp. 12-13).
	
	• A PBIS framework includes **tiered interventions**, moving from school-wide to whole-class, then to small group, and finally to individuals as the needs of the students become evident.
	  o PBIS typically begins with 3 to 5 statements of expected positive behaviors that articulate the philosophy for learning and growing on a campus. These statements integrate beliefs about the value of both the behaviors that promote learning and the contributions of individual students.
	  o **Tier 1** focuses on primary prevention strategies that center on the belief that educators can teach all children to engage in behaviors that promote learning and positive relationships. These strategies include:
	    ▪ Data collection,
	    ▪ Early intervention,
	    ▪ Needs-driven instruction,
	    ▪ Research-based supports, and
	    ▪ Progress monitoring.
		[Positive Behavioral Interventions and Support (PBIS)](#)
		
		[Integrating Academic and Behavior Supports Within an RtI Framework, Part 1: General Overview](#)

	What are RTI, PBIS, and MTSS?	
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	o **Tiers 2 and 3** of PBIS strive to **identify underlying causes for students' poor behavior**:
	  ▪ **Tier 2** focuses on smaller groups comprised of students with greater needs than the whole group. The same strategies from Tier 1 are employed, but the focus is on a smaller group of students.
	  ▪ **Tier 3** focuses on just a few students and aims to improve a student's personal life (family collaboration, health concerns, physical activity, social interactions, etc.).
	  ▪ Tier 2 and 3 are more effective when they are infused with c**ulturally responsive positive behavioral interventions and support** (CRPBIS) that address the reality that minority students are more likely to receive behavioral referrals than their Caucasian peers.
	
	• **Multi-Tiered Support Systems (MTSS)** integrate academic, behavioral, and social-emotional instructional strategies that address the needs of all students and, therefore, educate the whole child. PBIS and RTI share a conceptual framework that is effectively blended through MTSS.
	  o Because students' behavior and academic challenges are often connected, it is wise to **merge PBIS and RTI into a unified process**. Research suggests that this integrated approach is associated with "greater improvement in both academic and behavioral outcomes" (Eagle, Dowd-Eagle, Snyder, & Holtzman, 2015, p.161).
	  o MTSS is characterized by the intentional design and, often, redesign of the current services schools provide to meet students' **academic and social and emotional needs**. MTSS structures may vary in the exact frameworks that are employed, but they all tend to have several common characteristics that **integrate both academic and positive behavioral supports** including the following:
	  ▪ Positive, trust-based culture;
	  ▪ Evidence-based instructional strategies;
	  ▪ Family, school, and community partnering;
	  ▪ Data-driven decision-making practices;
	  ▪ Team driven shared leadership; and
	  ▪ Interventions and layered continuum of supports designed to meet the needs of the whole child.
	  o As in RTI and PBIS, MTSS uses **three intervention tiers**, which increases in intensity and individualization:
	  ▪ **Tier 1** focuses on evidence-based, inclusive instruction for the whole group where high-quality instructional strategies are selected and implemented because they are inherently designed to be	

What are RTI, PBIS, and MTSS?		
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	differentiated, and, therefore, provide inclusive instruction for all students.
	  ▪ **Tier 2** focuses on the needs of small groups of students, and **Tier 3** focuses on individual students.
	  ▪ **Tiers 2 and 3** are more likely to utilize the expertise and direct influence of behavioral interventionists or school counselors on a campus.
	   o The integration of behavioral and academic intervention in an MTSS framework is essentially implemented in three parts:
	  ▪ **The systems** that include the policies, school schedule, budgets, action plans, professional development, staffing decisions and more, which directly affect the adults on campus;
	  ▪ **The practices** that include all of the planning and implementation processes, choosing core curriculum, instruction, grouping, partnering, and redirecting; and
	  ▪ **The data** that include decisions about which tools or instruments should be used to monitor students' progress, which resources should be committed to regularly interpreting the data, and which interventions should be adjusted to address the evidence that the data presents.	

Section 2: Implementing Tier 1 Strategies

The tables that follow concentrate on different aspects of Tier 1 Implementation. Included in the content are high-quality instructional and assessment practices that are effective at the Tier 1 level. These practices are evidenced-based and address students' social, emotional, and academic growth. This section is divided into seven interactive literature review tables on the following topics: an overview, culturally responsive teaching, evidence-based and differentiated learning, universal design for learning, standards and behavioral expectations, monitoring and assessment, and the formative learning process.

An Overview: Supporting Learning for All Through Evidence-Based Tier 1 Strategies		
Main Ideas	Additional Information	Resources

Tier 1 instructional strategies *should always be focused on what students need. In that regard, educators should **utilize data** regularly to determine students' needs and embrace inclusive, differentiated, and culturally sensitive instruction.*	• Because "researchers suggest that approximately 80% of students respond positively to Tier 1 supports" (Shogren, Wehmeyer, & Lane, 2016, p. 215), the focus of this section is on **high quality, evidence-based Tier 1 instructional practices**. Note the following details about these practices:
	  o Data about student achievement and behavior coupled with clearly articulated goals, unpacked academic standards, and expected behavioral outcomes is a driving force for Tier 1 instructional decisions made on a campus and in a classroom. To that end, educators must make certain that
	    ▪ Baseline data through universal screening are gathered for each student at designated times throughout the school year, and
	    ▪ Student achievement and behavior are regularly monitored.
	  o Evidence-based instructional strategies that teachers employ should be consistent with all of their students in an effort to ensure treatment integrity (Collier, 2010).
	
	• Classroom interventions and supports at the **Tier 1 level** are categorized in the following ways:
	  o **The foundations** – setting students up for success
	    ▪ The settings for learning or the physical layout of the classroom are welcoming and thoughtful.
	    ▪ The predictable classroom routines are taught early in the year.
	    ▪ The expectations for behavior are clearly articulated.
	  o **The practices** – prevention and response
	    ▪ Teachers provide reminders and prompts, and they scan, move, and interact with the students.
	    ▪ Teachers provide multiple and varied opportunities for students to respond.
	    ▪ Teachers use specific praise to let students know when they have met classroom expectations.
		[Integrating Academic and Behavior Supports Within an RTI Framework, Part 2: Universal Supports](#)
		
		[SWIFT video on Inclusive Academic Instructions](#)
		
		[Resources for High-quality Instructional Strategies from California](#)

An Overview: Supporting Learning for All Through Evidence-Based Tier 1 Strategies		
Main Ideas	Additional Information	Resources
	▪ Teachers proactively remind students of expectations before engaging in a task. ▪ Teachers use brief and clear responses to redirect behavior. ▪ Teachers avoid using strategies that call attention to misbehavior, and instead implement strategies that optimize instructional time. o **The data systems** – Beyond reviewing achievement scores, performance on a variety of assessments provides a clearer picture of what students are learning and what they are not. Data is also used for recording details regarding both behaviors that promote learning that the entire class is working on, or a behavior that detracts from learning that a few students are struggling with. ▪ Teachers count the number of times a targeted behavior occurs (frequency) ▪ Teachers record how long a behavior lasts (duration). ▪ Teachers record information before, during, and after an incident occurs. • As educators develop a curriculum infused with high-quality Tier 1 strategies, they should make certain to include the following practices: o Employ **culturally sensitive**, inclusive, and appropriate instructional strategies; o Articulate **clear goals and expected outcomes**--both academic and behavioral--for every task, activity, project; o **Monitor and assess** student progress by gathering data; o Provide **encouragement** and engage in exchanges of **feedback**--teacher to student, student to teacher, student to student; and o Allow for **error correction** through multiple opportunities for success (e.g., retakes, redo's, retries) so that students learn from their errors and misunderstandings (Goodman, McIntosh, & Bohanon, n.d.).	

Culturally Responsive Teaching in MTSS

Main Ideas	Additional Information	Resources

Culturally sensitive and inclusive *Tier 1 strategies aim to close the achievement gap by recognizing the academic and socio-emotional needs of all students. Such strategies recognize and celebrate differences in students and view these differences as assets.*	• Culturally responsive teachers realize that mastering academic knowledge involves understanding that **curriculum must provide multiple avenues** to understand and access information (Kozleski, n.d.).
	
	• Cultural sensitivity embraces the narrative that there are **different ways of knowing and communicating** and recognizes other ways that students from non-dominant cultures can demonstrate their proficiency levels (Kozleski, n.d., p. 2).
	
	• Cultural sensitivity also demands that teachers identify the levels of language proficiency of their English language learners and all culturally diverse students in their classrooms as they are making decisions about curriculum. Select culturally sensitive and relevant content and **view students' native languages and diverse cultures as strengths rather than deficits**.
	
	• Consider the following **principles of culturally responsive teaching**:
	  o **Communicate high expectations** – Have high expectations for all students and support them in their efforts to learn. Do not make culturally biased excuses when students fall short.
	  o **Recognize the assets that students and their families bring to learning** – Get to know students and their families. Learn about the students' lives and experiences and view students' native languages and cultures as rich sources of learning and inspiration
	  o **Explore personal and family histories** – Encourage students to develop a stronger sense of themselves and their roots. When students share their stories with each other, they become more unified as a group, develop empathy for one another, and strengthen relationships.
	  o **Acknowledge membership in different groups** – Recognize and celebrate differences, acknowledging our own biases. Empower students to see the world and one another more clearly.
	  o **Learn about the history of diverse groups** –Select material/content from multiple cultures and traditions. Too often, the study of literature, history, science or mathematics focuses on the work and effort of white males. Many other voices are worthy of study as well, and teachers should make every effort to have diverse voices and experiences represented in their content.
	  o **Anchor curriculum in students' everyday lives** – Select content/resources and build learning experiences that are relevant to students' lives, helping students to make personal connections with what they are learning.
	  o **Engage Students** – Implement discovery-based learning and encourage students to ask higher-level questions, collaborate with others, seek multiple sources, test hypotheses, solve real-world problems,
		[Culturally Responsive Teaching Matters](#)
		
		[Inclusive Behavior Instruction](#)
		
		[Inclusive Academic Instruction](#)
		
		[Building a Positive School Culture from Kamm Solutions](#)
		
		[ELL Go To Strategies](#)
		
		[Understanding Implicit Bias: What Educators Should Know](#)
		
		[Why Teachers Must Fight Their Own Implicit Biases](#)
		
		[Cultural Relevance Rubric for Children's Books](#)

Culturally Responsive Teaching in MTSS		
Main Ideas	Additional Information	Resources

	and interact with their communities.
	○ **Activate learning** – Teachers build a framework for formative learning anchored on prior knowledge helping students to engage with their own learning through clear and thoughtful feedback and goal setting.
	○ **Select approaches to learning that are inclusive** – Provide opportunities where all students can successfully participate through collaboration anchored in respect.
	○ **Share control of the classroom behaviors with the students** – Seek student input for behavioral and academic expectations. All voices are valuable. Students can provide input publically or through a suggestion box or private email.
	○ **Engage in reflective thinking** – Implement the formative process, a critical practice for culturally responsive instruction in all content areas. Students need the opportunity to reflect on their progress. Consider the following questions for reflection through a student's viewpoint:
	   ■ Did I meet their learning and behavioral goals?
	   ■ What came easily?
	   ■ What was difficult?
	   ■ How well did I work with my peers?
	   ■ What did I contribute to the process and product?
	   ■ What did I find the most interesting?
	   ■ What could I have improved?
	
	• The following questions are samples of the sorts of **considerations culturally sensitive teachers ask** as they address culturally diverse students' needs:
	○ Are students more comfortable working in small groups? Alone? With just a partner of a similar cultural background? With someone else who speaks their same native language?
	○ Are there specific students in the class who are better suited to work with culturally diverse peers?
	○ Would it be better for students to write in their native languages? Or can students who are learning English provide a storyboard or illustration of their ideas with fewer words rather than write an entire essay?
	○ If students are to deliver speeches, do they have the option to do so for just the teacher or even record the speech at home rather than deliver it in front of the whole group?	

Effective Tier 1 Instruction is Evidence-Based and Differentiated

Main Ideas	Additional Information	Resources

Effective Tier 1 instructional strategies should be differentiated in their design and provide evidence-based supports.	• **Well-trained teachers deliver appropriate instruction with fidelity**. This statement implies that a school has in place **mentoring and support structures for new teachers** so that in spite of their limited years of experience, they are well versed in high-quality, evidence-based instructional strategies. This also implies that **professional development is ongoing** and meaningful for teachers of all levels of experience (Sanetti & Collier-Meek, 2015, p. 816).
	
	• M**entoring and support structures should extend to students**, especially in transition years (Kindergarten, 1st grade, 3rd grade, 6th grade, 9th grade). Having an older peer mentor or a teacher mentor on campus can provide a student a greater sense of comfort and safety, which directly affects a student's ability to learn and supports the child emotionally, socially, and academically.
	
	• In order to meet the varied needs of students in an MTSS framework, **appropriate high-quality instruction should be differentiated allowing for multiple paths to learning**. Differentiation can occur in each of the following ways:
	  o **Content –** Students have options for what they want to learn. The content can range from being generated by the teacher within certain parameters to allowing students to wholly determine the concept, idea, or content they wish to study.
	  o **Process –** Students have options for how they want to learn or several ways to engage with the material. Do they work alone or with a partner? Does the teacher read aloud? Do they read on their own?
	  o **Product-**-Students have options for how they demonstrate what they have learned. Do they write an essay? Do they prepare a presentation? Do they create a community action plan? Do they create a campaign to raise awareness? Do they create a storyboard or a piece of art? Do they dictate their ideas? Draw them? Map them?
	
	• **Appropriate high-quality Tier 1 instruction** should focus on the following:
	  o **Rich, diverse, and meaningful content** – Ideally, this should be supplied in a scope and sequence by a collaborative team of educators that is relevant to students' lives and of high interest to them
	  o **Effective and engaging instructional delivery**--When students are bored, they are more likely to engage in distracting and inappropriate behavior. Strategies that invite immediately engagement should appeal to their learning styles and be student-centered and highly interactive.
		Research-Based Interventions from California
		
		Student Collaboration from Kamm Solutions
		
		Learning Through Inquiry from Kamm Solutions
		
		Engagement Through Interactive Techniques from Kamm Solutions
		
		Best Practices in Multi-Tiered Support Structures

Effective Tier 1 Instruction is Evidence-Based and Differentiated		
Main Ideas	Additional Information	Resources
	o **Thoughtful instructional grouping and precision partnering** – Using data, teachers should group students according to their needs and their strengths: • Research supports both heterogeneous and homogeneous groupings of students based on achievement level. It is important that teachers consider which students would benefit from working together (Center for Teaching Innovation, n.d.). • It is important to be sensitive to each student's needs with respect to grouping. Thoughtful variety and flexibility in these groups helps all students meet their learning goals. • Allowing students to work in groups, to teach one another, has the added benefit of instilling deeper learning in each student as they teach the material and also as they learn from one another. o **Adequate instructional time for deep inquiry into content** –Too often, teachers identify time as their nemesis because they are trying to cover too much material with not enough time to do so. A focus on the standards that students are striving to master and an in-depth inquiry into content makes the discovery process in learning much richer than a brief dip into a concept because there is not enough time to really explore it. o **Numbered Heads Together** – This is an example of an appropriate instructional strategy that has proven to be highly effective. Numbered heads together "...is an alternative teacher questioning strategy that actively engages all students simultaneously in collaborative, content-related discussions. All students write individual responses to each teacher question; share those responses in small, heterogeneous groups; and reach consensus. One member of each team is then selected randomly to provide the group's response" (Hunter, Maheady, Jasper, Williamson, Murley, & Stratton, 2015, p. 346). This dynamic dialogue provides the opportunity for students to learn from one another and for teachers to discover where students are in their understanding of the concepts, skills, and content they are addressing.	

Universal Design for Learning Supports MTSS Tier 1 Strategies

Main Ideas	Additional Information	Resources

Universal Design for Learning (UDL) *provides many effective suggestions about how teachers can engage all students in learning regardless of their levels of proficiency, disabilities, economic disadvantages, and more.*	• **UDL is an approach to instruction that is highly compatible with MTSS**. UDL is characterized by the expectation that **students all learn differently and engage with the materials and content in different ways**. The focus of UDL is centered both on *what* students will learn and *how* they will learn it. Therefore, the educational experiences students might have in a unit of study will be flexible and varied in the ways teachers present and students access the content – the information, the concepts, the ideas and in the ways students engage in learning and stay engaged (Teaching Excellence In Adult Literacy, 2010, p. 1).
	
	• Some of the most **common instructional strategies** that embrace the principles of Universal Design for Learning include the following:
	   o Cooperative learning,
	   o Differentiated instruction,
	   o Project-based learning,
	   o Multisensory teaching, and
	   o Principles of student-centered learning.
	
	• UDL curricula are most successful when the initial design is created with the intent to meet the needs of the greatest number of students. This is accomplished when educators embrace the following curriculum design principles:
	   o **Multiple means of representation** – using a variety of methods to present information and provide a range of means to support learning.
	   o **Multiple means of action and expression** – providing learners with alternative ways to act skillfully and demonstrate what they know.
	   o **Multiple means of engagement** – tapping into learners' interests by offering choices of content and tools; motivating learners by offering adjustable levels of challenge" (Teaching Excellence In Adult Literacy, 2010, p. 1).
	
	• Examples of UDL **principles at work in a curriculum** include the following:
	   o Educators provide brief, explicit instructions both orally and in written form so that students can frequently refer to the instructions for guidance.
	   o Educators explain, show **models**, and provide written **parameters** and performance **rubrics** for the product when the project is introduced.
	   o Educators **chunk the steps** of the project for students with **flexible deadlines** and **regular check-ins**
		[Universal Design for Learning from TEAL](#)
		
		[Universal Design for Learning (UDL): What You Need to Know](#)
		
		[UDL at a Glance](#)
		
		[5 Examples of Universal Design for Learning in the Classroom](#)
		
		[Universal Design for Learning: Meeting the Needs of All Students](#)
		
		[Response-to-Instruction and Universal Design for Learning: How Might They Intersect in the General Education Classroom?](#)
		
		[10 Helpful Text-to-](#)

Universal Design for Learning Supports MTSS Tier 1 Strategies		
Main Ideas	**Additional Information**	**Resources**
	with students regarding their progress. o If students are researching a new topic they choose what to learn about from a list of **high-interest options** the teacher has provided and determine what they would like to know about the topic by **creating their own research questions**. Teachers **provide models and sentence starters** for the types of research questions that students might use. o Students not only **select the articles** they will read on a topic from a list of choices, but adjust the reading level of the articles using a website such as [Newsela](#). Teachers provide suggestions for the types of articles students might select. o Students always have the **option to be read to or use voice to text options** to understand information or record their ideas. o Students **decide how they want to present what they've learned** using a list of options provided by the teacher (newspaper, essay, video, slide show, storyboard, piece of art, propaganda, invention, board game, etc.). Teachers provide models to help students decide how they might approach the product. o Students engage with content material in a variety of ways including **hands-on interactions and physical movement** around a classroom.	[Speech Readers for Back to School](#) [Assistive Technology for Kids with Learning Disabilities: An Overview](#) [Listenwise, An interactive Listening Site](#)

Common Core State Standards, Behavioral Expectations, and MTSS		
Main Ideas	Additional Information	Resources
Clear goals and expected academic outcomes *such as the CCSS should be aligned with* **clearly articulated behavioral expectations** *so that the focus of Tier 1 instruction is educating the whole child.*	• The **Common Core State Standards and MTSS are compatible** and beneficial for students. Indeed, the CCSS "...provide the target of performance for all students. The duration and intensity of core instruction (Tier 1), including differentiation in general instruction, is expected to result in performance at the standards for most students" (Gamm, Elliott, Halbert, Price-Baugh, Hall, Walston, & Casserly, 2012, p. 18). 　o Regarding literacy, for example, the CCSS provide a laser-focus on close reading skills, which invite teachers and students to spend more time with rich texts that are interesting, relevant, and excellent examples of high quality writing. As a Tier 1 activity, close reading with such a text invites layers of options for support and differentiation based on students' needs. 　o At the Tier 1 level, a teacher might "...begin the design of a literacy lesson by selecting a piece of reading for its rich use of language at the appropriate grade level—rather than at students' reading level" (Gamm et al. pp. 19-20). Inherent in the close reading process are layers of support and guided instruction for individual students who may not be reading on their own at the designated grade level, but with the support of the close reading process are able to comprehend the text and increase fluency successfully. 　o As teachers develop lesson plans with the content and learning goals or standards in mind, they should likewise determine what behavioral expectations will optimize student learning and address both the academic and the social and emotional needs of students. • The National Reading Panel has designed a core program that outlines the **five research-based components of reading** critical to all reading instruction in early grades: 　o Phonemic awareness, 　o Phonics, 　o Fluency, 　o Vocabulary, and 　o Comprehension. • Within the National Reading Panel's program, it is recommended that educators and students **identify behavioral expectations** for students as they engage in learning to read such as the following: 　o Be respectful, 　o Be a good listener,	[Common Core State Standards and Diverse Urban Students: Using Multi-Tiered Systems of Support](#) [Effective Reading Strategies from Kamm Solutions](#) [Supporting and Responding to Behavior: Evidence-Based Classroom Strategies for Teachers](#) [Positive Behavioral Support](#) [Effective Vocab. Practices, Kamm Solutions](#)

	- Be encouraging, - Be safe, - Be responsible, etc. (Goodman, McIntosh, & Bohanon, n.d.) • **Clearly and explicitly articulated Tier 1 behavioral expectations** should be coupled with high-quality instruction. Establishing behavioral expectations and reinforcing positive behaviors are critical components to establishing a culture of trust in a classroom and on a campus and addressing the social and emotional needs of students in order to maximize an environment where all learners can thrive. • Teachers need to always **model the type of interaction they expect from their students**, especially in potentially tense situations. Consider the following practices: - Present information to students on **behavior expectations**, including examples of appropriate and inappropriate behavior so that students clearly understand the concept being taught. - Provide students with **opportunities to practice** appropriate behavior to build fluency. - Ensure that lessons take place in the settings in which appropriate behavior should occur and are taught by the adults responsible for monitoring students. (Goodman, McIntosh, & Bohanon, n.d.) For example, if students are expected to collaborate in small groups on a project, teachers should always **review the expectations for working well in a small group** and model the type of language they would like students to use: "I think your idea is good and it might work." Or "I like how you are thinking about this. I was thinking that we could try this…" - Use **hypothetical situations** and discussing how to best handle them to provide a model for how students should interact. As a proactive means to address potential group conflicts, consider asking the students examples of the **types of questions** that follow prior to starting the project: - What do you do if one student has an idea that he or she is really excited about but no one else wants to use? - What do you do if someone in your group is not really contributing much to the overall effort? - What do you do if no one in your group is really listening to you? The intent is to help students develop an action plan in case any of the preceding circumstances occurs. - Posting **sentence starters** for thoughtful responses is also a helpful tool for students learning to communicate effectively and kindly with one another. - Teachers might also consider inviting **student input for determining behavioral expectations** for	

Common Core State Standards, Behavioral Expectations, and MTSS		
Main Ideas	Additional Information	Resources

	various learning activities such as small group work or whole group discussion. For example:
	    ▪ Listen to each other.
	    ▪ Speak respectfully, even if you disagree.
	    ▪ Cooperate, negotiate, and do your part.
	    ▪ Stay on task and help each other.
	  o Students also need to learn about or be reminded of the art of **compromise**. If all members of the group are accountable for the process and the product then the students need to agree on what everyone will contribute and what they as a group will produce in the end. Students need to understand that this means when that they do not get everything they want.	

Monitoring and Assessment

Main Ideas	Additional Information	Resources

Monitoring and assessment are critical pieces of the MTSS process at all tiers and rely on effective data collection and interpretation.	• **Assessment and monitoring are essentially the process of gathering data.** In an MTSS framework, the process of gathering data should be designed to allow students to show what they know in a way that optimizes their individual strengths. In order for assessment and monitoring to be effective, they must be consistent.
	
	• **Treatment integrity** is a critical component to data collection in an MTSS framework. It is essentially defined as "the extent to which an intervention is delivered as planned" (Sanetti & Collier-Meek, 2015, p. 815). When "... interventions are delivered without sufficient treatment integrity, they are not only less effective in improving student outcomes," but they do not provide sufficient data to inform instructional decisions (Sanetti & Collier-Meek, 2015, p. 815). Therefore, it is essential in an MTSS framework that research-based interventions are implemented as they were intended to be. For example, "for a student to be identified as non-responsive to support, it is necessary for school personnel to ensure that the student not only has first been exposed to the evidence-based practice for an adequate length of time, but that the practice or intervention has been implemented with fidelity by the implementer" (Nelson, Oliver, Hebert, & Bohaty, 2015, p. 15). Otherwise, school personnel should not make such a determination regarding a student's response to an intervention.
	
	• Educators need to be asking the following **key questions** as they make decisions about data:
	  o What systems do we put in place to keep track of whether or not the students are learning?
	  o What does the evidence need to be?
	  o How do we best manage the data?
	  o How do we ensure that multiple forms of assessment are ongoing?
	  o How do we ensure that treatment integrity is occurring?
	  o How can we keep data collection simple, focused, manageable, and transparent?
	  o How can we most effectively engage students in the data collection process?
	
	• **Universal screening and progress monitoring** provide essential data to determine students' needs. Some schools designate universal screenings a few times a year for all students, but at minimum, universal screenings happen at the beginning of each school year.
	
	• The frequency of monitoring increases as the supports become more individualized for students who demonstrate a higher need for intervention at the Tier 2 and 3 levels. Progress monitoring at all levels
		[Using Student Achievement Data to Support Instructional Decision Making](#)
		
		[3 Ways Student Data Can Inform Your Teaching](#)
		
		[What is Data-Driven Instruction?](#)
		
		[6 Ways to Promote Data-Driven Instruction in K--12 Schools](#)

Monitoring and Assessment		
Main Ideas	Additional Information	Resources

	includes classroom observations and assessments as well as students' performance in small groups, such as a reading group or a math group. At the **Tier 3 level**, the specific behaviors and performance goals that students are working on should be observed daily whenever possible so that teachers and interventionists can respond quickly to help meet the students' needs.
	
	• One of the most effective data collection tools beyond teacher observation of student performance is **student self-monitoring and self-regulation**. These processes provide valuable data as students set goals based on their own behavioral and academic expectations. They engage in self-observation, self-judgment, and self-reflection (Nelson, Oliver, Hebert, & Bohaty, 2015, p. 16). This practice provides students and teachers with valuable insight and data regarding how well a student is meeting behavioral and academic expectations.
	
	• When teachers decide to use **self-monitoring checklists with students**, the following must be considered:
	  o What is the frequency with which the checklist must be completed to maintain fidelity?
	  o What items need to be included to measure the fidelity/integrity of the intervention?
	  o Are the included items feasible for the student to actually complete?
	  o What is the most efficient method for the checklist to be completed?	

The Formative Learning Process: Feedback, Encouragement, and Error Correction		
Main Ideas	Additional Information	Resources

***Feedback, Encouragement and Error Correction** are critical components to an MTSS framework and require a trusting school culture in order to be effective. Many of the evidence-based practices recommended for feedback, encouragement, and error correction are part of the **formative learning and assessment process**.*	• **Feedback, Encouragement, and Error Correction** support Tier 1 strategies. Key to an effective MTSS framework is reciprocal trust so that feedback can be well received and encouraging rather than discouraging to students and teachers. The correction of errors is a critical part of learning and progress (quiz corrections, retakes, rewrites, redo's; etc.). This implies that the culture of a school allows for errors and mistakes and sees their value in the cycle of learning.
	
	• Students will perform better and **respond positively to feedback and error correction** when
	  o They know there is room to make mistakes without ridicule or punishment,
	  o They feel safe to ask questions,
	  o They know their teachers believe in them and their ability to succeed,
	  o They are able to try and try again until they get it right,
	  o They set goals for achievement and behavior and experience successes in meeting those goals,
	  o They understand the expectations for behavior, and
	  o They feel that behaviors that do not promote learning are redirected consistently and kindly.
	
	• The **formative assessment process** includes the following components that involve both educators and students in a cycle of learning:
	  o Educators identify and unpack standards and **establish a learning progression** as well as models of what the final learning outcomes look like.
	  o Educators **pre-assess** their students to determine each student's level of mastery of concepts and skills in relation to the determined standards.
	  o Students and educators collaboratively **generate specific success criteria** that are in alignment with the standards.
	  o Students determine their **personal learning goals**, and through a series of learning experiences, they demonstrate their mastery of concepts and skills stated in the standards.
	  o Based on the evidence of student learning, educators give **frequent, focused feedback** that guides students' learning and builds their confidence as they master new learning.
	  o Within this learning cycle, educators provide ample opportunities for **students to self-assess** their progress based on the specific success criteria.
	  o Students are also provided with the opportunity to **peer teach and peer-assess** using the success criteria. Educators provide clear guidelines for peer-assessment, only requiring students to give
		[Creating a Culture of Trust in Schools from Kamm Solutions](#)
		
		[Formative Learning and Assessment from Kamm Solutions](#)
		
		[Providing Effective Feedback from Kamm Solutions](#)
		
		[7 Smart, Fast Ways to Do Formative Assessment](#)
		
		[Formative and Summative Assessment](#)
		
		[Template to Use For Student Self-Assessment and Goal Setting](#)

The Formative Learning Process: Feedback, Encouragement, and Error Correction		
Main Ideas	Additional Information	Resources
	feedback to one another on criteria that the students are prepared to address. o To more thoroughly guide student learning, educators give specific and timely feedback throughout the process. In addition, educators employ a variety of **research-based instructional practices** providing learners with alternate ways to master the concepts and skills identified in the standards. o Students are given many opportunities to apply the standards-based success criteria as they revise their work according to the feedback they have received. One major component of formative learning is providing students with **multiple opportunities for success**. o Educators assess student learning in order to determine next steps in the learning cycle.	

Section 3: MTSS and Trauma-Informed Practices

Childhood trauma is a national health crisis in the United States. The prevalence of trauma among our nation's children has had a profound impact on their social and emotional well-being, their behavior, and their readiness to learn. When implementing effective MTSS practices, it's imperative that trauma-informed practices are also considered. Many of the behavioral and learning challenges witnessed in students who are considered to have Tier 2 and Tier 3 needs, stem from trauma in their past and present. Trauma-informed schools and classrooms can help break the cycle of trauma that so many children experience.

This section has been organized into four interactive literature review tables: table one defines and describes trauma; table two provides information about the impact of trauma on children, classrooms, and schools; table three provides leadership considerations for developing and sustaining a trauma-informed school; and table four describes the effective practices found in trauma-informed classrooms.

What is Trauma?		
Main Ideas	Additional Information	Resources

Trauma can be defined as an event or series of events that is emotionally or physically harmful with lasting adverse effects to one's well being. Trauma is prevalent and experienced by a significant percentage of youth in the U.S.	• Many different types of adverse experiences can cause trauma although not every person who has these experiences will develop trauma. **Children are much more susceptible to trauma than adults** and the more adverse experiences they have, the greater the chance they will develop trauma (National Association of School Psychologists, 2015).
	
	• Exposure to violence, living in poverty or a high crime area, bullying, incarceration, racism, sudden loss of a loved one, and chronic stress are some of examples of experiences that may result in trauma. **Trauma can involve individuals, families, communities and even nations** (Cavanaugh, 2016).
	
	• Trauma can be classified as:
	   o Acute – related to a specific event and of brief duration which is usually short-lived,
	   o Chronic – occurs over an extended period,
	   o Historical – experienced by groups over generations, and
	   o Complex – chronic, occurring early in life, often involves caregiving relationships (Guarino, n.d., p. 5).
	
	• In addition to those experiencing trauma, secondary or vicarious trauma may occur in the people who work extensively with traumatized individuals.
	
	• Exposure to trauma is not unusual. **Approximately 25% of school children have experienced trauma** that can impact performance in school and approximately 75% of those in the juvenile justice system have experienced trauma (Pickens & Tschopp, 2017, p. 1).
		What is Trauma?
		
		Types of Trauma
		
		Recognize Trauma

What is the Impact of Trauma?		
Main Ideas	Additional Information	Resources
Trauma affects both individuals and school systems. It can impact the anatomy and physiology of the brain, increase behavioral issues, impact the ability to learn and diminish the ability to form healthy relationships.	• In 2015 the Children's Law Center indicated the impact of trauma is so widespread that **childhood trauma rates constitute a national health crisis** and as a result, trauma response is increasingly being incorporated in federal and state policies (McIntyre, Baker and Overstreet, 2019). • Trauma may cause one to remain in a chronic survival state. When in a survival state the brain is not activated for learning. **Chronic survival states can result in physical, psychological and behavioral issues**. A prolonged survival state may cause changes in the prefrontal cortex, amygdala and hippocampus sections of the brain (Pickens & Tschopp, 2017). • **Trauma may result in altered perceptions.** Threats may be perceived where there are none. Poor peer interactions, perceived loss of control, disconnection from others and disengagement in school may be exhibited. Poor executive functioning skill development, disorganization, intrusive thoughts, and lack of concentration are possible after experiencing trauma. • **Prolonged release of stress hormones** can slow the growth of nerve fibers in areas around the hippocampus. Prolonged stress can lead to learning difficulties, lack of trust, increased medical and psychological problems, self-regulation difficulties, oppositional, and antisocial behaviors (Ingram, n.d.). • Traumatized children are particularly vulnerable to stress and these easily overstimulated children have difficulty with emotional self-regulation and struggle to put feelings into words. **Anger, often accompanied by physical aggression, may be their most readily expressed emotion** (Walkley & Cross, 2013). • Oppositional behavior, aggression and poor social skills can lead to exclusionary discipline such as an office referral or suspension. Research shows that **minority students receive disproportionate numbers of suspensions. Exclusionary discipline practices have the potential to re-traumatize students thereby perpetuating the cycle of trauma**. • Schools that effectively implement trauma-informed practices are positioned to be especially helpful to traumatized children because **brain development is significant during early childhood and adolescence**. (McInerney and McKlindon, 2014).	[Understanding the impact of trauma](#) [Stuck in Survival Mode: Insights into Turning Down Your Stress Level](#) [Brain Changes with Trauma](#) (YouTube Video) [Racial Disparities in School Discipline are Growing, Federal Data Show](#) [Past Trauma May Haunt Your Future Health](#)

What is the Impact of Trauma?

Main Ideas	Additional Information	Resources
	• "Dysregulated behavior reflecting traumatic stress reactions and survival coping often stem from perceived threats to physical and / or psychological safety such as teasing from peers, perceived unfairness from the teacher, or behaviors from others that the student believes is disrespectful." (Pickens & Tschopp, 2017). • **Not all trauma affects children the same way.** Different types of trauma have been shown to impact different components of cognitive functioning, including perceptual reasoning, working memory, processing speed and verbal comprehension (Maynard, Farina, & Dell, 2017 p. 1). • In 2014, The Center for Disease Control and Prevention warned that adverse childhood experiences have the potential for contributing to **long lasting and significant health issues** such as substance abuse, depression and unintended pregnancy (National Association of School Psychologists, 2015).	

What are the Leadership Considerations for Creating a Trauma-Informed School?

Main Ideas	Additional Information	Resources
Creating trauma-informed schools requires intentional planning and coordination of both internal and external resources in order to provide comprehensive supports for students.	- Developing a multifaceted approach to create trauma-informed schools requires significant leadership ability and commitment throughout all levels of a school district. **Creating trauma-informed schools is a journey, not an event.** Making the case for change requires the development and sharing of appropriate data and building staff knowledge of trauma and trauma-informed practices. Building community partnerships, committing resources, revising policies, practices and protocols to become trauma-informed and creating other enabling conditions to sustain trauma-informed practices is essential. **Trauma practices should be aligned with existing district initiatives.** Trauma informed practice should focus on educational strategies across a continuum of Multi-Tiered Systems of Support (MTSS) such as Positive Behavioral Interventions and Support (Cavanaugh, 2016). - As schools and districts address trauma and inform research, a consensus on effective practices has begun to emerge. It is becoming clear that education leaders must **engage with diverse and informed thought partners** as they consider how to best address trauma-informed practices. Planning considerations include the following areas: - Governance and leadership - Policy development - Physical environment - Engagement and involvement - Cross sector collaboration - Screening, assessment, and treatment services - Training and workforce development - Progress monitoring and quality assurance - Financing programs and informed support - Evaluation (Substance Abuse and Mental Health Services Administration, 2014, p. 20). **Change takes time** and developing trauma-informed schools will likely occur in many phases over an extended period. Steps for Leaders may include the following: - Phase 1: Educate staff and school leaders and build multidisciplinary teams to support and assess readiness.	Creating, Supporting, and Sustaining Trauma-Informed Schools Leading Trauma Sensitive Schools The Evolution of a Trauma-Informed School An Inside Look at Trauma-Informed Practices A Guide to Psychological Safety for Educators

	o Phase 2: Examine current practices related to trauma sensitivity and align with other initiatives while revisiting readiness. o Phase 3: Integrate trauma sensitive practices, evaluate impact, respond to changing needs and sustain school wide change (Guarino, n.d., p. 26). • As with most undertakings, **sustainability is a major consideration** for education leaders. Revising, developing, and implementing policies can be both an accelerant for change and an insurance policy to help mitigate against barriers to sustainability, including frequent district level leadership changes, funding fluctuations, and changing priorities (Overstreet & Chafouleas, 2016). • Broad consensus is emerging regarding effective discipline policies that can be important in counteracting the effects of trauma. **Zero tolerance policies are shown to be ineffective** and counterproductive in supporting appropriate behavior and increasing student engagement (National Association of School Psychologists, 2015, p. 5). • School policies should include **Multi-Tiered System of Support** similar in structure to that of Positive Behavioral Interventions and Supports or Response to Intervention systems. A multi-tiered approach may be organized as: o Tier 1: Building schoolwide understanding of trauma and trauma-informed lens of schoolwide practices. o Tier 2: Targeted support for those exposed to trauma or those at risk for re-traumatization. o Tier 3: Individualized trauma-specific mental health services typically delivered by professional clinicians. • **Developing a trauma-informed lens necessitates a review of the code of conduct** to help ensure the implementation of "positive student behaviors and include graduated systems of developmentally appropriate responses to student misconduct that hold students responsible for their actions. Examples include making sure interventions are culturally appropriate, engaging students in efforts to improve the code of conduct, making use of restitution, employing cooling off periods, and ensuring that students continue to receive quality instruction when they are removed from the classroom for disciplinary reasons" (National Association of School Psychologists, 2015, p. 5). • **Screening for at risk students is essential** and may be conducted universally or through a targeted process.	

What are the Leadership Considerations for Creating a Trauma-Informed School?		
Main Ideas	Additional Information	Resources
	• Build staff capacity by increasing knowledge and practice of trauma-informed strategies. Research has notes that **teachers who perceive alignment of trauma-informed approaches with existing school norms and practices (systems fit) show an increased acceptability** for trauma informed approaches. Teachers have been shown to interpret knowledge through the lens of the larger systems and norms (McIntyre, Baker, & Overstreet, 2019). • Professional development must ensure **cultural awareness and considerations for students of diverse backgrounds as well as strategies to form relationships with their parents and caregivers**. • Supervision and support of staff must be conducted to **limit secondary and vicarious trauma**. Regular support for staff wellness and self-care should be integrated with meetings, supervision, and other professional activities. • **Establishing and nurturing community partnerships** for coordinated mental health services is essential. Specific school-based interventions are more effective when they are implemented within the context of integrated and coordinated mental and behavioral health services for all students (National Association of School Psychologists, 2015, p. 4).	

What Practices are Best Implemented in an Effective Trauma-Informed Classroom?		
Main Ideas	**Additional Information**	**Resources**

Using a trauma-informed lens to plan and deliver instruction creates opportunities for students to heal from trauma and engage in learning.	• **Classroom environments should be safe and supportive** where students feel validated and respected. Research suggests that supporting children who have experienced trauma can be challenging and that factors such as supportive school environment, role clarity, and gaining trauma-focused skills and knowledge can potentially mediate these challenges (Record-Lemon & Buchanan, 2017, p. 296).
	
	• Teachers need to understand the effects of chronic stress/trauma and **shift from asking, "What is wrong with you?" to "What happened to you?"** (Dorado, Martinez, McArthur, & Leibovitz, 2016, p. 3).
	
	• Developing an understanding of trauma, supports early identification of triggers that may possibly escalate behavior. **Recognizing triggers** can assist teachers in reducing or preventing challenging behaviors. Triggers include:
	  o Loud, chaotic environments,
	  o Physical touch,
	  o Authoritarian figures,
	  o Limit restrictions,
	  o Uncertainty about expectations or transitions,
	  o Emergency responders and police, and
	  o Situations that generate feelings of helplessness, vulnerability, or lack of control (Guarino, n.d., p. 19).
	
	• Possessing a toolbox of trauma-informed strategies is essential as no one strategy is universally appropriate. However, Dr. Bruce Perry asserts that, **"There is no more effective neurobiological interaction than a safe relationship."** Healthy, consistent relationships create safe environments and help bring the brain back from a survival state into homeostasis.
	
	• Research supports several instructional practices implemented in effective trauma-informed classrooms:
	  o Establish routines especially for transitional events during a school day.
	  o **Reinforce positive efforts** with praise and acknowledgement.
	  o Use the curriculum to design opportunities for **student voice and choice.**
	  o Enforce expectations consistently and with respect.
	  o Identify an area of the classroom to be used when behaviors have been triggered, and provide tactile features to help calm a triggered student.
		[Trauma-Informed Approaches to Classroom Management (PowerPoint)](#)
		
		[Self-Care for Providers](#)
		
		[Video About a School Implementing Trauma-Informed Practices](#)

What Practices are Best Implemented in an Effective Trauma-Informed Classroom?		
Main Ideas	Additional Information	Resources
	o Create opportunities for reinforcing vocabulary that describes emotions. o Use seating arrangements, assignments and grouping to **assist students in developing relationships with others**. o **Create learning activities** that ask students to identify how others are feeling and use multi-media to express emotions in healthy ways. o Develop **relationships with families and caregivers** and **highlight success and efforts** of students. o Identify coping skills to help decrease emotional intensity. **Help students find ways to cope** and connect them to friends, peers or supportive adults. o Practice and model **mindfulness and relaxation** techniques. o Teaching is a rewarding and challenging profession. **Practice self-care** and seek opportunities to receive support from others.	

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