Kansas Multi-Tier System of Supports & Alignment

Reading: Structuring

Structuring Guide for Reading

2022-2023 Academic Year

KANSAS TECHNICAL ASSISTANCE SYSTEM NETWORK
www.ksdetasn.org

Introduction to Document

The *Kansas Multi-Tier System of Supports Structuring Guides* have been created to assist teams in documenting the structures necessary to begin the implementation of a Kansas Multi-Tier System of Supports (MTSS). This document might contain tools to be used in conjunction with content-area-specific documents for reading, mathematics, behavior, and social-emotional content areas. All Kansas MTSS documents are aligned with the *Kansas Multi-Tier System of Supports: Innovation Configuration Matrix (ICM)*, which describes the critical components of an MTSS and what each looks like when fully implemented, and the *Kansas Multi-Tier System of Supports: Research Base*, which provides a basic overview of the research support for a MTSS.

www.ksdetasn.org/mtss Acknowledgements

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

The contents of this resource were developed under an agreement from the Federal Department of Education to the Kansas State Department of Education. However, the contents do not necessarily represent the policy of the Department of Education, and endorsement by the Kansas State Department of Education or the Federal Government should not be assumed. Kansas MTSS is funded through Part B funds administered by the Kansas State Department of Education's Early Childhood, Special Education and Title Services. Keystone Learning Services does not discriminate on the basis of race, color, national origin, sex, disability, or age in this program and activities. The following entity has been designated to handle inquiries regarding the non- discrimination policies: Keystone Learning Services Executive Director, 500 E. Sunflower Blvd, Ozawkie, KS 66070, 785-876-2214. Authorization to reproduce in whole or in part is granted.
Permission to reprint this publication is not necessary.

Table of Contents

Introduction

In Kansas, there is a belief that all children can learn. Fundamentally, every student should be challenged to achieve high standards, both academically and behaviorally. A systemic framework for ensuring that all students have this experience is referred to as Kansas Multi-Tier System of Supports (MTSS). Simply put, Kansas MTSS is a set of evidence-based practices implemented across a system to meet the needs of all learners. Horner et al. (2005) stressed the importance of supporting children both academically and behaviorally in order to enable them to reach their fullest learning potential. Kansas MTSS builds a system of prevention, early intervention, and support to ensure that all children learn. Additionally, Kansas MTSS intentionally focuses on leadership, professional development, and an empowering culture in addition to student learning.

Kansas MTSS and Alignment incorporates a continuum of assessment, curriculum, and instruction. This systemic approach supports both struggling and advanced learners through the selection and implementation of increasingly intense evidence-based interventions in response to both academic and behavioral needs. Whether your program implements a single content or plans to integrate academic and behavior contents, it is essential that you begin with the System's Guide and then the content guides. The Kansas MTSS Framework establishes a Self-Correcting Feedback Loop that includes ongoing monitoring of the effectiveness of instruction to ensure that each Kansas student achieves high standards.

Across the nation, schools use a variety of curricula, interventions, and methods to monitor student learning, both academically and socially. The goal of Kansas MTSS is to provide an integrated systemic approach to meet the needs of all students. To achieve this, resources must be used in an effective and efficient way. While Kansas MTSS and Alignment does not necessarily require additional resources or addition to existing practices, it does involve evaluating current practices to identify those that yield evidence of effectiveness, addressing areas that are missing, and replacing ineffective or inefficient approaches with those that are supported by research and/or evidence. Kansas MTSS and Alignment is a guiding framework for school improvement and accreditation activities to address the academic and behavioral achievement of all students.

A multi-tiered reading model has been designed to implement these research findings and meet the instructional needs of all readers. The MTSS is a prevention model aimed at providing early supports to students before they fall behind or become disengaged from school because of advanced learning needs. A multi-tier reading model uses scientific, evidence-based reading practices and the five essential areas of reading.

Science of Reading

More than 30 years of research exists indicating how children learn to read, why some children fail at reading, and what components and practices are necessary to provide effective instruction in reading. Within the last two decades, neuroscientists have provided a much clearer picture of how reading develops within the brain. Multiple researchers have attempted to provide representations of this process. This section is designed to provide a brief overview of some of this work. Considerable research supports the importance of using systematic and explicit instruction when teaching the five essential areas of reading, namely phonemic awareness, phonics, fluency, vocabulary, and

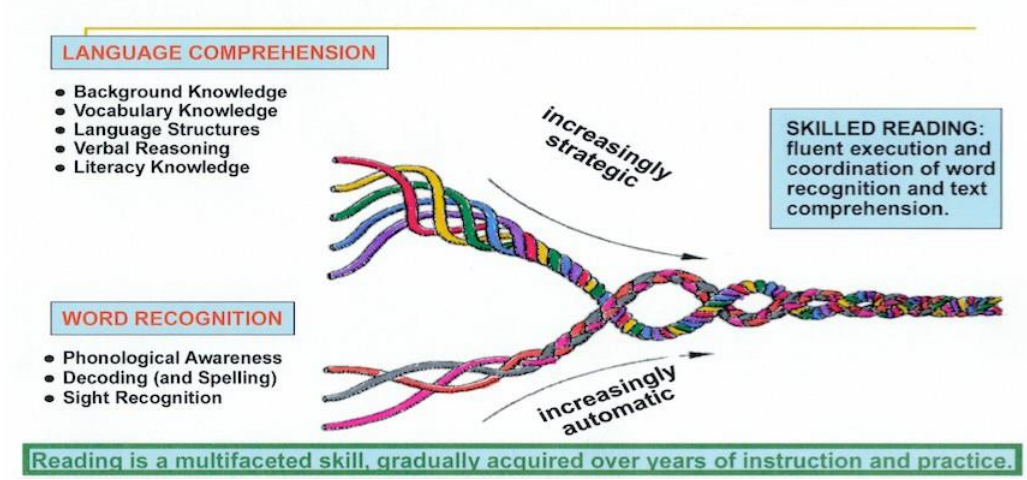
comprehension.

The relationships between these five areas of reading are represented in the Gough & Tumner's Simple View of Reading formula:

> Decoding (word recognition) x Language Comprehension = Reading Comprehension or a Proficient Reader.

In an attempt to explain the relationships between these skills, Hollis Scarborough developed what is now known as Scarborough's "Rope" Model (depicted below). This module expands on the Simple View and demonstrates how these components interact with one another.

Fluent reading depends on both the automaticity of word recognition and comprehension sub skills. These sub skills are like strands in a rope that become increasingly integrated as reading develops.

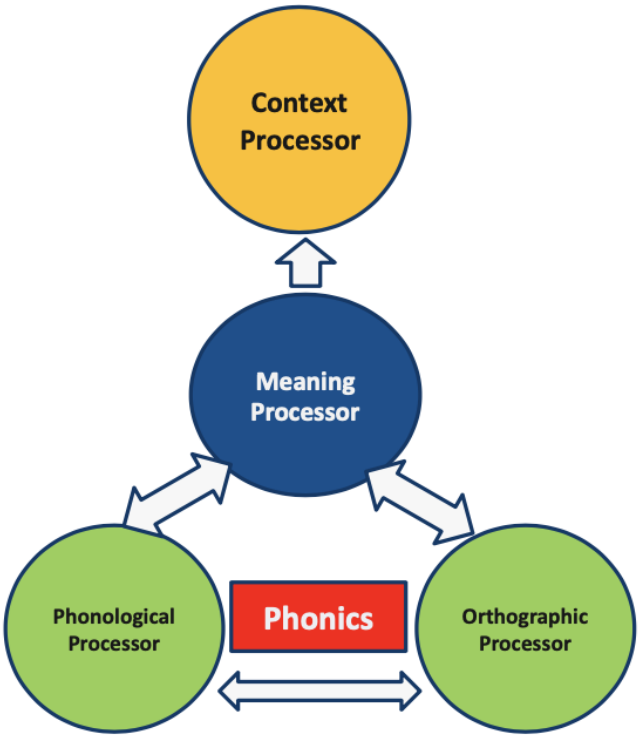


(Scarborough, 2001)

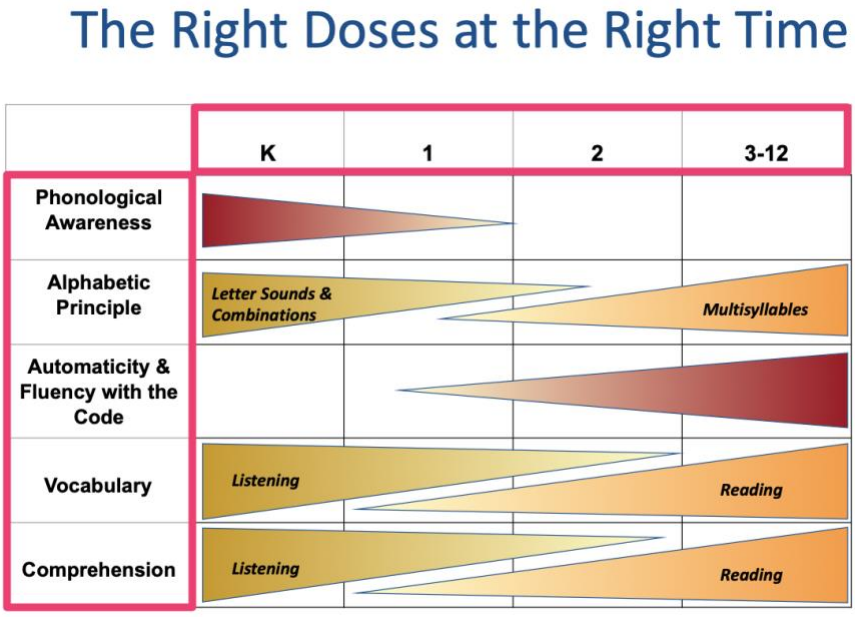
According to this formula, reading is the product of word recognition (phoneme awareness, phonics, and fluency) and language comprehension (fluency, vocabulary, and comprehension). Therefore, a proficient reader must have both good word recognition skills and language comprehension.

While Scarborough's model was designed to explain the full reading experience, the 4-Part Processing Model for word recognition proposed by Seidenberg and McClellan (1989) supports the research of cognitive psychologists regarding the reading processing systems. The 4-Part Processor is a graphic representation of the four parts of the brain involved in reading. The phonological processor symbol on the graphic represents the back part of the frontal lobe of the brain that is responsible for speech-sound awareness. The orthographic processor symbol on the graphic represents the lower back occipital part of the brain that is responsible for letter and letter-pattern recognition. The angular gyrus is where the phonological and orthographic processing systems communicate to support word recognition. The meaning and context processor symbols represent the temporal areas in which meaning and comprehension take place.

The four-part processor concept helps explain the various ways in which reading problems might develop and why reading instruction should target several kinds of skills. The goal of instruction is to activate all of the processing systems and enable them to work together. "The model shows why recognition and fast processing of sounds, letter patterns, and morphemes—as well as word meanings, language comprehension, and background knowledge—are all important components of skilled reading" (LETRS Module 1, 2nd Edition). According to Snowling (as cited in Perfetti, 2005, p.3), "word recognition is the foundation of reading; all other processes are dependent on it."

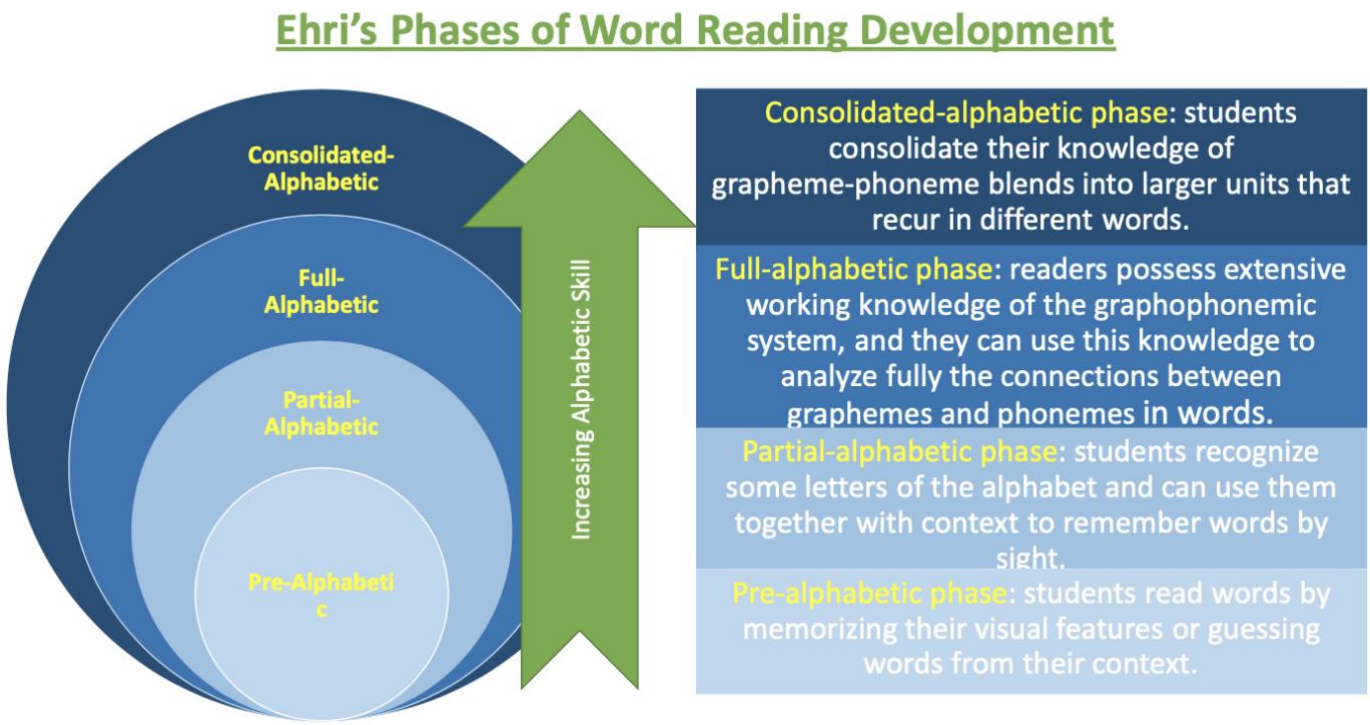


These theoretical models beg the question of how a teacher determines what needs to be taught to students and when. According to the Connecticut Longitudinal Study (Foorman, Francis, Beeler, Winikates, and Fletcher, 1997; Shankweiler et al., 1999; Shaywitz, 2003), the relationship between decoding and comprehension changes as students learn to read. In this study, decoding in first grade accounted for about 80% of passage comprehension compared to 50% in the fourth grade and 40% by eighth grade. Even though eighth grade comprehension is still dependent on decoding by almost half, the study shows that teaching reading is not a balance of skills, but rather the ability to provide the right doses at the right time (Moats & Tolman, 2009). The idea of dosage of these big ideas of reading is depicted in the following graphic:



Although all components may show up during a comprehensive lesson at all levels, different skills and activities are emphasized at different stages of reading development.

Linnea Ehri, a Professor of Educational Psychology at the Graduate Center, City University of New York, has developed a four-phase model of how students learn to read words (Ehri, 1999).



A multi-tier reading model emphasizes early identification, supplemental instruction, ongoing assessment, and the use of assessment data to identify students who need intervention, because assessment selection is a critical step in the MTSS process. The efficiency of the MTSS process varies depending on the assessments selected to drive the process. Teaching all students to read requires a system for the early identification of at-risk students as well as a system for providing those students with the interventions they need to become proficient readers by third grade. Good classroom instruction should meet the needs of most students, but an efficient system for providing high-quality interventions is required to meet the needs of all students.

Assessments for Reading

Universal Screeners

It is important that universal screening tools assess the critical skills that fall within the five essential areas of reading and are highly predictive of future performance. The best measures are those that can be administered quickly yet reliably while still providing data that can be used with confidence to make instructional decisions.

The simple skills of reading measured by curriculum-based measurements (CBM) predict eventual reading comprehension so well that testing only takes 7-15 minutes per child. What is tested is simpler than what is taught: Both foundational skills and comprehension will need to be taught, even though comprehension may not be tested thoroughly (Moats and Handcock, 2004, p. 12).

Universal Screening for Grades K-8

All students in grades K-8 (Early Reading K-3 and Adolescent Reading 4-8) should be screened three times per year on critical literacy skills. The skills measured will depend upon grade level and the time of year. The publisher of each potential universal screening instrument should be able to provide a manual or technical guide that will enable teams to determine whether or not the critical skills are covered (See Appendix: Critical Skills for Universal Screening).

Some universal screening tools have pre-established cut points or benchmarks that can be used, whereas others are based on normative information and utilize percentile ranks as a means of identifying students who may need additional support. Screening tools that have preset benchmarks identify students at risk of falling into the strategic (students needing additional intervention) or intensive category (students needing substantial intervention) (Farrell, Hancock, & Smartt, 2006).

Universal Screening for Grades 9-12

In grades 9-12, screening is a multi-step process focused on reading comprehension. The first step in this screening process involves assessing students' grade-level comprehension skills at least once a year in the fall or when they identify students in need of reading intervention or advanced learning needs that may need extension or acceleration opportunities. This can be done by administering group assessments or computer-adaptive group assessments.

For districts that do not yet have a secondary level screener as part of their selected universal screener, the following table provides a few examples of assessments that can be used as the initial step for universal screening for grades 9-12.

Universal Screening for Grades 9-12			
Grade Level	Measure	Skill Assessed	**Examples of Group Assessments**
9-12	Comprehension Measure	Comprehension	• Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) • STAR Reading • FASTBridge • AIMSweb+ (measures only to 8th grade)

Since screening is a multi-step process for students in grades 9-12, the leadership team will need to determine which grade-level comprehension assessment will be administered to all students in these grades at least once a year. To maximize efficiency, these comprehension assessments are typically administered to groups. Next, leadership teams will then need to determine which assessment to administer to the students in grades 9-12 who did not pass the grade-level comprehension assessment and need intervention to determine the appropriate intervention. More information on this step can be found in the Kansas MTSS Reading Implementation Guide, Step 4.

Regardless of the initial screening tool chosen, it is important to note that "there is not one single screening tool that works well for every grade level in secondary settings…. It is commonly recommended that secondary settings use a combination of attendance data, performance data on standardized tests, course grades, credit attainment, and discipline data as part of the screening process. Students who fall off track in multiple areas should be targeted for additional support" (Gibbons, 2019).

Progress Monitoring Assessments

Students make more academic progress when progress monitoring occurs regularly, and data is collected to make instructional decisions, resulting in students making more academic progress than when teachers do not use progress monitoring. Teachers' accuracy in judging student progress increases when progress monitoring is used consistently (Stecker & Fuchs, 2000).

During core instruction, all students are progress monitored through the use of common formative assessments administered throughout the year. These assessments are tied to content-area instruction and help teachers determine if students have learned the concepts and skills. The instruction can be adjusted to re-teach concepts or provide additional practice on skills not yet mastered.

For students receiving supplemental (Tier 2) and intensive (Tier 3) instruction, progress-monitoring data is collected more frequently and used to chart the growth of individual students. Progress monitoring for students receiving supplemental or intensive instruction answers two questions:

1. Is the instructional intervention working?
2. Should the intervention be continued, adjusted, or discontinued?

The tools recommended for progress monitoring include the same tests as the universal screener that was originally used to identify the students requiring interventions (Torgesen, 2006). These curriculum-based measurements (CBMs) are recommended because they exhibit the following traits:

1. Ability to measure small increments of change

2. Sufficient multiple forms to allow for frequent (weekly or bi-weekly) administration (20 to 30 alternate forms are sufficient)
3. Provide data that can be used to create growth charts of the students' learning over time

The evidence indicates strong effects on students' reading, spelling, and mathematics achievement when teachers rely on CBM for progress monitoring, especially when teachers graph the scores to help plan instruction (Fuchs & Fuchs, 2002). Having students chart their own progress can also increase motivation and participation (Bos & Vaughn, 2006). The ultimate goal of the MTSS is to return the student to a less-intensive level of support as soon as possible while continuing to monitor the student's progress in case the need for additional supports re-emerges.

For ***students in grades K-12***, progress monitoring of students receiving supplemental and intense instruction is critical so that teachers can determine if the intervention is working or needs to be adjusted. The assessment instrument chosen for progress monitoring must be able to measure the reading skills being taught in the intervention being provided. Therefore, appropriate matching of the progress-monitoring measure(s) and the intervention is critical to ensuring student progress. The chart below provides some general guidelines for selecting a progress monitoring tool based on the focus of instruction.

Matching Progress Monitoring to Instructional Focus

Focus of Instruction	Progress Monitor
Alphabet Knowledge	Letter Naming Fluency, Letter Sound Fluency
Phonological Awareness	Phoneme Segmentation Fluency, Nonsense Word Fluency
Alphabetic Principle	Nonsense Word Fluency, Oral Reading Fluency
Accuracy (Advanced Phonics)	Oral Reading Fluency Passages (Accuracy percentage)
Automaticity	Oral Reading Fluency Passage (WCPM)
Comprehension	Maze/Daze or other comprehension measure

Collecting and graphing progress-monitoring data over a series of weeks will provide a visual pattern of skill acquisition for students receiving additional support. Most recommendations for the frequency of progress monitoring indicate collection of data every two to three weeks for students receiving supplemental instruction and weekly for students receiving intense instruction.

Decision rules for entering tiers are initially based on the assessment's universal screening instructional

recommendations. When students are receiving intervention and being monitored for progress in their grade level, the grade-level cut-score for the time of year is used to determine exit criterion and movement between tiers. The fluid movement of groups is critical. Students who achieve exit criteria and are removed from specific intervention groups increase their motivation (Hall, 2007). It is recommended that the leadership team provide time for scheduled meetings of collaborative teams to review data, discuss student progress, and determine students' movement between tiers.

Diagnostic Assessments

The term *diagnostic assessment* has two meanings in MTSS for reading. The first meaning refers to formal diagnostic assessments using standardized tests. The second meaning refers to a diagnostic process that involves the use of informal surveys and tests that probe a student's reading knowledge and skill in depth so that teachers can determine the student's instructional focus.

It is not necessary for leadership teams to identify a formal diagnostic process to determine instructional focus in preschool. However, for grades K-12, the leadership team should identify both formal and informal diagnostic assessments that will be made available within their comprehensive assessment plan. When selecting diagnostic assessments, the team should ensure the technical adequacy of each assessment. Diagnostic assessments are designed to provide more precise, detailed, and instructionally relevant information regarding students' knowledge and skill. The purpose of diagnostic assessment is to provide very specific information about students' skills and should focus on sampling students' knowledge in ways that are instructionally relevant. Diagnostic assessments can be conducted at any time during the year when a more in-depth analysis of students' strengths and weaknesses is needed. Keep in mind that many formal diagnostic assessments may be housed within your special education department. A conversation with the special education director can provide more information on the availability for use with any student and specialized training that may be necessary to administer that assessment. Included as a resource in the back of this guide is a reading diagnostic assessment list (Appendix); although not exhaustive, these diagnostic assessments are commonly used in Kansas schools to help the leadership teams develop a comprehensive assessment plan.

At a minimum, a set of informal diagnostic assessment instruments needs to be available to assess critical skills in reading. From this set of instruments, the tool(s) needed to assess an individual student's presenting concerns will be selected. Literacy skills develop along a continuum regardless of a student's age or grade level. Therefore, each building—kindergarten through high school—must identify a set of diagnostic assessment instruments measuring a range of very specific skills. Not all students will be assessed using all of these instruments, but the building should at least have informal diagnostic assessments available to assess phonics and phonological awareness.

For leadership teams working at the secondary level, it is important to note that some diagnostic reading assessments were developed for younger students; however, these assessments can still be appropriately used to identify the needs of older students whose skill level is much lower than that of their peers.

Most diagnostic assessments provide either age-based or grade-based norms or rubric scoring used to determine whether or not a student has significant problems in specific skill domains. Formal diagnostic assessments require a lot of building resources, which should be used only when progress-monitoring data indicates that further information is necessary to adequately plan instruction. Decision rules will ensure that students who need diagnostic assessment will receive it in an efficient and effective way.

All buildings should establish decision rules to address when additional diagnostic assessments will be given. The leadership team needs to review each selected diagnostic assessment to determine the skills assessed and time required for administration. The team should determine the decision rules for when diagnostic assessments will be administered as well as document all decision rules established during the comprehensive assessment plan.

All buildings should address decision rules related to:

1. How data from the diagnostic process will be used to assign students to homogenous groups.
2. When the additional formal diagnostic assessments will be administered.

Instruction

Tier 1 Core Reading Instruction (Grades K-3)

Especially in the primary grades, teachers must be prepared to provide strong initial instruction in the critical reading skills. Teachers must be able to provide skill-based, systematic, and explicit instruction to the entire class while simultaneously working with small groups of students who have different instructional needs. Students with diverse needs are best supported when instruction is at the right level and focused on the areas of most critical need. According to Torgesen et al. (2007), without strong core classroom instruction, including differentiation by classroom teachers, school resources can be overwhelmed by the demands placed on individual staff members providing intervention. The Kansas Department of Education has provided specific recommendations regarding the use of structured literacy instruction rather than a balanced literacy approach. Details on those recommendations and requirements can be found here.

How many minutes of Tier 1 reading instruction should our primary students receive? Core instruction provided to all students in the building should be consistent with evidence-based practices and the district's allocation of instructional minutes. "Evidence substantiates the use of the (reading) block as a best practice in literacy instruction and meets the ESSA requirements for evidence that demonstrates a strong rationale. For this reason, we continue to recommend the use of an uninterrupted, 90-minute block as the Tier 1 foundation for a strong literacy program" (Underwood, 2018).

As building leadership teams develop the Tier 1 curriculum protocol, careful thought needs to be given to how that 90-minute block should be used. Resources from the University of Texas linked here provide a framework for time allotments that reflect the Science of Reading. This daily block includes active engagement with multiple opportunities to practice skills in both whole-group and small-group settings.

Instruction in small groups should be teacher led and involve flexible, differentiated, homogeneous groups. All students should be actively engaged during small-group time, either with an adult or practicing skills in differentiated, independent student centers that are based on student data. A sample week of small-group planning and instruction from the University of Texas can be accessed here.

Tier 1 Adolescent Core Reading Instruction (Grades 4-12)

For adolescents, the learning shifts to being more content driven, focusing on the ability to build content knowledge and develop critical thinking skills. Content-area classes are considered to be the core reading class at the secondary level. Essentially, core (Tier 1) reading instruction is designed to support the development of vocabulary and reading comprehension in all students and to encourage struggling readers to apply the strategies emphasized during intervention instruction. Further information about secondary core instruction is available at the end of this guide.

A common question for grades 4-6 is whether these grades should follow the early literacy model or the adolescent recommendations. At grades 4-12, in buildings that have departmentalized intermediate grades (4-6), the model of instruction will be more like those for middle and high school buildings in which all students are included in content-area classes. If these grades, however, are still self-contained, most schools choose to adapt more fully to the early literacy model of instruction.

It is important to note that the ability to read grade-level material has implications in every content classroom. Ensuring that all students have access to their content text is a driving factor when considering Tier 1 instruction for adolescents. Leadership teams need to examine the efficacy of core instruction in order to ensure that the needs of students are being met. In order to assist students in becoming critical thinkers, the use of embedded strategy instruction across content areas is encouraged. When buildings consistently use strategies embedded in content areas, students can "focus on comprehension and content knowledge," and learning across all content areas is enhanced (Johnson, 2009). Teachers need to create multiple opportunities for students to practice using the strategies as applied to content-specific materials and situations as well as provide adequate feedback on their use. Without explicit strategy instruction, researchers note that many students are not able to perform at grade level and demonstrate gaps in their ability to read and write at the secondary level (Biancarosa & Snow, 2004; Deshler, Palincsar, Biancarosa, & Nair, 2007).

An early step when developing the Tier 1 reading protocol at these grades involves the selection of an evidence-based building-wide reading strategy to support reading in all content classes. *Improving Adolescent Literacy: Effective Classroom and Intervention Practices* (Kamil et al., 2008) and the National Reading Panel's (2000) report are major sources for identifying strategies that can have an immediate impact on student reading achievement, including adolescent reading in grades 4-12. The IES Practice Guide can be found at: https://ies.ed.gov/ncee/wwc/PracticeGuide/8.

Tier 2 and 3 Strategic and Intensive Instruction (Grades K-12)

Classwide Intervention

In grades K-6, when almost half of the students are showing some risk, a classwide intervention is a great starting point. With the critical mass of students reading below benchmark is this large, it is easy to overwhelm a typical system of small group instruction. When this occurs, it is difficult to make progress with any of the students, and data tends to remain flat. Providing instruction to ALL students before moving to the instructional models described in this section is an efficient method for rapidly responding to student need in a whole group setting. More details on how to determine the need for a classwide intervention and how to set them up for success can be found in the Reading Implementation Guide.

K-6 Intervention

Even with excellent Tier 1 instruction and the lack of need for a classwide instructional model of intervention, some students will need additional intervention and supports to make adequate progress. Instruction plays a critical role in helping students who require intervention to accelerate their learning. The most efficient way to provide instruction for intervention is in small groups **in addition** to the core program.

During intervention, students are grouped by instructional need, not necessarily by chronological age or grade. The instruction in intervention should align with the practices that occur in the core program, although it may be necessary to intensify the instruction depending on the needs of the students. The fluidity of grouping at this level becomes critical to ensure that students can return to less-intensive instruction as quickly as possible to reduce the loss of more instructional time.

Instruction during intervention should:

- Occur in small group sizes, which allows for more opportunities for student response and corrective feedback (see KS MTSS recommendations on grade levels and group sizes).
- Be aligned with the instructional practices in the core program.
- Be more systematic, explicit, and focused on a small number of specific skills at a time.
- Be delivered at a quick, engaging pace.
- Be provided with extensive, explicit modeling, and scaffolding.
- Use graphic organizers to reduce cognitive load, if needed.
- Use multi-modality instruction.

In addition, there are differences in the intensity between strategic and intensive instruction. Intensive intervention must include the following aspects:

- More time is needed for intervention.
- More intensive and explicit instruction.
- More customization of instruction.
- Smaller group size.
- Increased opportunities to respond.
- Immediate corrective feedback.
- More frequent progress monitoring.

Adolescent Intervention

For adolescent literacy, strategic (Tier 2) intervention is designed to provide support to students who need targeted, focused instruction in reading. It is intended to focus primarily on instruction in comprehension and vocabulary strategies, with instruction in phonics such as word reading and/or reading fluency provided when needed. Research supports the use of authentic text from core content classes while providing instructional strategies to support the development of background knowledge and vocabulary within the students' content-area classes. More details on instruction for adolescents can be found in the Secondary Supplement, located at the end of this guide.

Scheduling for Instruction

K-12 Models of Instruction

The building leadership team will select a model for providing the necessary tiered instruction to meet students' needs. There are a variety of possible models of instruction. The culture and logistics specific to a building will influence the implementation of any of the described models or the team's creation of a model that is unique to the building. When choosing an intervention delivery model, it is essential to consider recommendations for supplemental and intensive instruction and advantages and disadvantages of each model of support. A table outlining various models of instruction and when they might be used is available in the Appendix.

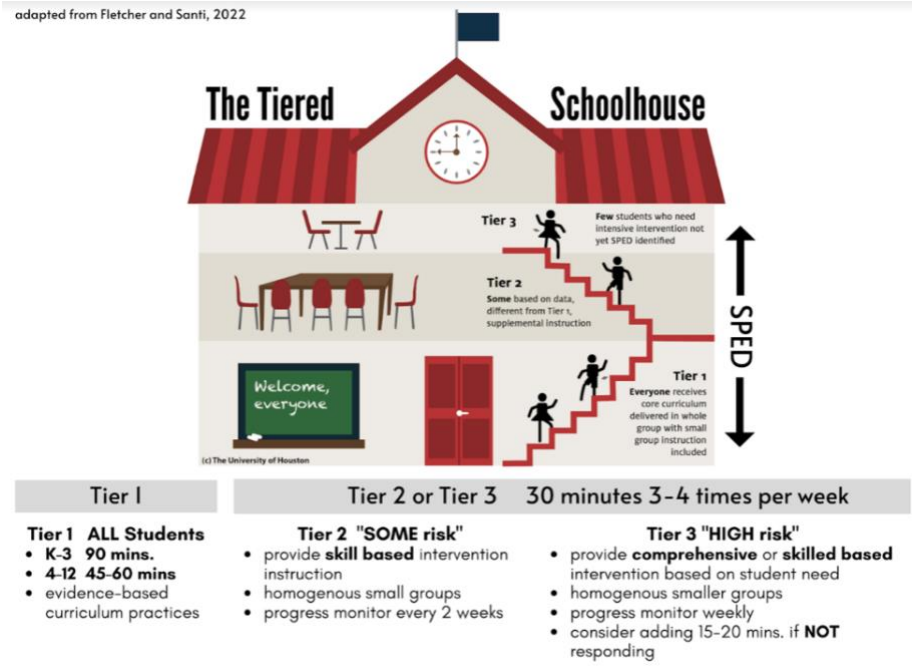
When creating the schedule to put into practice the selected model of instruction, ensure that classrooms are receiving adequate time for core instruction and that sufficient time is being built in for supplemental and intense intervention for reading. Building leadership teams may need to review the

considerations regarding providing services to students who need interventions for both reading and math, given the challenges of scheduling intervention time and the staff members who can provide those interventions.

Because intervention instruction must be aligned with core instruction, leadership teams should consider including collaborative planning time within the schedule. Other considerations include:

- Time for intensive supports (Note: providing the amount of time needed for intensive instruction may not be possible without infringing upon other allocated time periods in the schedule.)
- The fluidity of grouping. This is critical to ensure that students can move to less-intensive supports as quickly as possible to reduce the loss of other instructional time.

For grades K-6, it is generally necessary to schedule intervention blocks for the entire school schedule prior to scheduling the 90-minute reading blocks. Staggering intervention blocks allows the school to use all staff members more efficiently over the course of the day.



Time for Tier 2 and Tier 3 instruction should be built into the master schedule in order to manage instructional time and ensure that students have access to the full core curriculum. It is suggested that an additional 30 minutes of targeted Tier 2 instruction should be provided beyond the core, at least three to four days per week (Gersten et al., 2008; McCook, 2006) and should be conducted in small homogeneous groups of three to five students. Elementary students with Tier 3 needs will have more explicit and systematic instruction and fewer students in the group. The recommended time for Tier 3 intensive intervention is also 30 minutes. The ideal group size for intensive instruction should be no greater than three students.

For middle and high school students, homogeneous instruction can be provided to groups as large as 10 to 16 students for 30 to 50 minutes per day or one class period, at least three to four days per week (McCook, 2006). When using specific programs, it is necessary to follow program guidelines if group sizes are specified. In grades 4-12, Intensive (Tier 3) instruction should be skill based and focused on direct instruction. Intensive support is provided to small, homogeneous groups of one to four students for 50 to 60 minutes per day (Denton, Bryan, Wexler, Reed, & Vaughn, 2007).

Schedules must be created for the purpose of optimizing the value of academics. Creating the schedule in a spreadsheet format and color-coding the boxes to reflect the different blocks makes it easier for the team to manipulate the school day. Half-day kindergarten programs can present unique challenges for scheduling; thus, it may be easier to schedule this group last (Jones, Burns, & Pirri, 2010).

The leadership team should review the current assessment data on students in the building to obtain a rough estimate of the number of students who will need some type of intervention and whether a classwide model needs to be implemented first. The team should then review the models in the Tiered System of Support Comparison of Models tool (Appendix) and discuss the pros and cons of each model. A model of support should be selected that appears to be appropriate for the number of students in the school who might need intervention and that aligns with the building's core beliefs.

Example

A model of instruction that is growing in popularity is the Walk-to Intervention Model, in which a school provides common intervention times either for the same grade levels or across grade levels. During this common intervention time, students go to different classrooms for intervention. Interventions in this model can be provided by various staff members such as classroom teachers, specialists, and instructional aides. An advantage of this model is that tailored instruction can also be provided for advanced learners.

The following example demonstrates how a building can create a schedule to make the Walk-to Intervention Model work. Simply put, this approach preserves a block of time at each grade level (K-6) for core instruction (90-minute reading) and supplemental intervention (30-minute reading) in these content areas. No special classes are scheduled during this time, and all teachers and instructional aides are part of the supplemental intervention. Of course, students who would be best served by a particular specialist should be assigned to that specialist during instructional grouping. In some schools, an enrichment teacher or librarian also works with classes during this intervention time to ensure that students with advanced learning needs receive enrichment and extension opportunities. In the schedule depicted below, the class has a consistent time each day, thereby allowing for structure and predictability. Many schools find that this type of schedule results in improved student behavior as well as enhanced academic achievement. This type of scheduling requires planning and flexibility so that students can move in and out of instructional groups when needed, as dictated by the data.

The following is an example of a Walk-to Intervention schedule K-6. Note: in actuality, the schedule should include a short break between each intervention group to give interventionists time to change groups, materials, and/or locations.

Time	Kdg.	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6th Grade
8:00-8:30	Inter-vention			Reading		Reading	
8:30-9:00	Reading	Inter-vention			Reading		
9:00-9:30		Reading	Inter-vention				
9:30-10:00			Reading	Inter-vention			Reading
10:00-10:30					Inter-vention		
10:30-11:00						Inter-vention	
11:00-11:30							Inter-vention
11:30-12:00							
12:00-12:30							
12:30-1:00							
1:00-1:30							
1:30-2:00							
2:00-2:30							
2:30-3:00							
3:00-3:30							

In summary, the leadership team must:

- Identify the amounts of time needed for core, strategic, and intense instruction.
- Identify staff members who can provide needed instruction throughout the day.
- Develop a detailed schedule for core, strategic, and intense instruction.

Planning for Core Reading Instruction

The National Reading Panel (National Institute of Child Health and Human Development, 2000) made it clear that the best approach to reading instruction is one that incorporates explicit instruction in five essential areas of reading: phonemic awareness, systematic phonics instruction, methods to improve fluency, enhanced vocabulary, and comprehension. The research included for vocabulary evidence provided by the National Reading Panel consisted mostly of studies of students in third grade and older, while the research on comprehension involved mostly students in fourth grade and above.
The following is a summary of the panel's findings (University of Oregon):

- **Phonemic Awareness:** Children who learn to read through specific instruction in phonemic awareness improved their reading skills more than those who learn without attention to phonemic awareness.
- **Phonics:** Students showed marked benefits from explicit phonics instruction from kindergarten through sixth grade. The panel also found that systematic, synthetic phonics instruction (teaching students explicitly to convert letters into sounds and then blend the sounds to form recognized words) had a positive and significant effect on disabled students' reading skills. Systematic, synthetic phonics instruction was also significantly more effective in improving low socioeconomic status, alphabetic knowledge, and word reading skills (NICHD, 2006).
- **Fluency:** Reading fluently improved the students' abilities to recognize new words; read with greater speed, accuracy, and expression; and better understand what they read.
- **Vocabulary**: Vocabulary instruction and repeated contact with vocabulary words are important.
- **Comprehension**: In general, the panel found that teaching a combination of reading comprehension techniques/strategies is the most effective.

Phonological Awareness Instruction

Phonological awareness is critical to learning to read. Phonological awareness is an understanding of how spoken language can be divided into smaller components as well as the ability to manipulate these components (Yopp, 1992). It is an auditory skill and does not involve print. Instruction should follow a progression of task difficulty, moving from the easiest to the most difficult tasks, since phonological awareness skills develop in a predictable progression (Gillon, 2004). Phonological awareness is the foundation upon which older preschool children and kindergarteners begin to build phonemic awareness skills and, later, phonics and spelling. Even older readers often need to work on phonological awareness skills. According to research, orthographic mapping requires an advanced level of phonemic proficiency and manipulation tasks such as phoneme deletion and substitution. Orthographic mapping is the process during which readers turn unknown words into instantaneously retrievable known words. There is evidence that adolescents who struggle to read may not have acquired these higher-level phonemic tasks (Kilpatrick, 2017).

Phonemic Awareness Instruction

Phonological awareness is the umbrella term for multiple phonological skills, including phonemic awareness. These skills occur along a predictable continuum (see below). Phonemic awareness refers to knowing that spoken words are made up of smaller parts called phonemes. Teaching phonemic awareness gives children a basic foundation that helps them learn to read and spell. Phonemic awareness is an auditory skill that needs to be taught explicitly and embedded in the core curriculum. Focusing instruction on just a few types of phonological skills while pairing phonemic activities with graphemes produces better results (Craig & Brown, 2021).

Phonics Instruction

Young children must also be intentionally taught about letters and letter sounds. They need hands-on exploration of letters and the opportunity to use letters and sounds in meaningful contexts (e.g., environmental print, name labels, writing notes) and in their play. Surrounding children with letters, alphabet books, and letter activities isn't enough; to take advantage of a literacy-rich environment, children need instruction about letters and their sounds. Phonics teaches students about the relationship between phonemes and printed letters and explains how to use this knowledge to read and spell. Like phonological awareness, phonics skills also occur along a continuum (see below).

The Four-Part Processing Model (see Introduction: Science of Reading) explains why a systematic, organized approach to teaching phonics is necessary. Although research has shown that explicit instruction is necessary for phonics instruction, the key element for its success is providing opportunities to read decodable words (words containing previously taught sound-spelling) in context (Adams, 1990; Juel & Roper-Schneider, 1985; Stahl, Osborn, & Pearson, 1992). According to Blevins (2000), early readers who receive explicit, systematic phonics instruction achieve the most in both decoding and comprehension if the text they read contains high percentages of decodable words. Therefore, it is critical that phonic skills be taught first in isolation and then practiced in decodable text. Blevins further found that children who received explicit phonics instruction followed up by controlled-text reading (decodable text) and guided opportunities to spell words during dictation outperformed those students in decoding and spelling tasks who did not receive this type of practice. Phonics skills should always be the first practice students are encouraged to try.

Many core curricula include instructional routines for the use of phonics skills. Consistent instructional routines free up working memory space to learn a phonics skill instead of a new routine. The Florida Center for Reading Research is also a strong resource for early reading instructional routines if they are not embedded in the core.

The following is an example of how a phonics-based instructional routine might look:

1. Begin with stating the goal and purpose, providing clarity to students.
2. Warm up with a phonological awareness activity.
3. Review the previous lesson.
4. Introduce a new skill.
5. Provide guided practice with the new skill.
6. Apply the new skill to writing through dictation.
7. Connect the new skill to word meaning.
8. Practice applying the new skill in connected, decodable text.

Advanced Phonics and Word Study Instruction

Instructional practices that focus on reading at the word level are called word study practices. Students who inaccurately decode can benefit from phonics or word study instruction to improve their accuracy skills. Although many struggling readers at the secondary level are proficient in reading single-syllable words (stint, core, plan), they may lack strategies to decode the multisyllabic words that are common in higher-level reading materials (Archer, Gleason, & Vachon, 2003). Often termed *advanced word study*, interventions in this area generally include instruction in word recognition and word analysis (Curtis, 2004).

Since word study skills help students read words more effectively and efficiently, these skills uniquely contribute to reading comprehension (Nagy, Berninger, & Abbott, 2006; Scammacca et al., 2007). Phonics involves the relationship between sounds and their spellings. Advanced phonics builds on the skills taught in primary grades such as consonants, short vowels, and silent *e* and enables students to read multisyllabic words with often complex vowel and syllabication patterns. It also includes the study of structural analysis (prefixes, suffixes, roots) (Blevins, 2000). Instruction in advanced word study teaches students to be flexible decoders who can access word analysis and word recognition strategies as well as recognize irregular words that do not fit predictable patterns. The proficient use of decoding strategies is a requisite skill for fluent reading. Word study practices cue students to the letter patterns and structural features associated with predictable speech sounds.

Effective word study instruction not only includes advanced phonics skills, but also provides information about and strategies for analyzing words based on the meaning and structure of their parts. Students are often taught the six syllable types as well as the meanings of prefixes, suffixes, inflectional endings, roots, and important vocabulary. They also learn to break difficult words apart into smaller known units.

When using word analysis strategies, students read unknown words part by part and use known meanings, or semantic features, of the smaller chunks to assist them in decoding the longer word. The following are recommended instructional practices for word study (Boardman et al., 2008):

- Teach students to identify and break words into syllable types.
    - Closed (a single vowel followed by one or more consonants).
    - Open (ends with a single vowel that is usually long).
    - Vowel-consonant-silent e (a single vowel followed by a consonant, then the vowel e).
    - Vowel teams (two adjacent vowels).
    - R-controlled (vowel sounds followed by r).
    - Final stable (found in multisyllabic words and have several configurations).
- Teach students when and how to read multisyllabic words by blending the parts together.
- Teach students to recognize irregular words that do not follow predictable patterns.
- Teach students the meanings of common prefixes, suffixes, inflectional endings, and roots; instruction should include ways in which words relate to each other (e.g., trans: transfer, translate, transform, transition).
- Teach students how to break words into word parts and combine word parts to create words based on their roots, bases, or other features.
- Teach students how and when to use structural analysis to decode unknown words.

An example of a word study strategy is syllable chunking. Within the syllable chunking strategy, the following steps take place:

1. Students read the word aloud.
2. Students explain the word's meaning.
3. Students orally divide the word's pronunciation into its syllables or "beats" by raising a finger as each beat is pronounced and then stating the number of beats.
4. Students match the pronounced form of each beat to its spelling by exposing that part of the spelling as it is pronounced, while covering the other letters.
5. Students blend the syllables to say the whole word.

Fluency Instruction

Fluency is clearly an important reading skill, yet not all students will need the same amount of fluency instruction (Boardman et al., 2008). While reading fluency may be the gateway to reading comprehension, skilled word-level reading appears to be the gateway to reading fluency (Kilpatrick, 2016).

Often, fluency is simply defined as the rate or speed of reading words. While rate is one aspect of fluency, fluency encompasses more than rate. In fact, the skill of fluency, as defined by Hasbrouck and Glaser (2012), is "Reasonably accurate reading at an appropriate rate with suitable prosody that leads to accurate and deep comprehension and motivation to read." If students need fluency intervention, it is important to provide instruction in all aspects of fluency: accuracy, rate, and prosody.

During fluency instruction, students need to learn how to perform the following:

- Read words (in isolation and in connected text) accurately and automatically, with little attention or effort.
- Automatically recognize words (decoding).
- Read at an appropriate rate and with suitable expression (prosody).

When teaching fluency, teachers should perform the following:

- Provide opportunities for oral repeated reading with support and feedback.
- Match reading texts and instruction to students' reading levels.
- Provide opportunities to read narrative and expository texts.

Teaching fluency should include guided oral reading in which students read out loud to someone who corrects their mistakes and provides them feedback. Examples of widely used research-based strategies to improve fluency are:

- **Repeated Reading:** Repeated reading is necessary only for students whose WCPM is below expectations. Practice text until the reading is fluid and flowing.
- **Partner Reading:** Meanwhile, partner reading is a widely used research-based strategy that lets students practice oral reading with immediate and explicit feedback and incorporates the opportunity to engage in comprehension practice. Two students take turns reading aloud to one another in a variety of ways. Details on partner reading instructional routines as outlined by

Kansas MTSS can be obtained here.

- **Paired Repeated** Reading: (Koskinen & Blum, 1986) This is a combination of repeated and partner readings. A student reads a short passage three times to a partner and receives feedback. Then the partners switch roles. Pairing above-level readers with on-level readers and on-level readers with below-level readers works best.

Data from oral reading fluency screening tools should be used to partner students. A student who is a somewhat stronger reader can be paired with a relatively weaker reader. However, do not pair the strongest reader in the class with the weakest reader. The key is to have a model of good reading for the weaker partner (Boardman et al., 2008). When pairing students:

1. Rank and order students based upon oral reading fluency data.
2. Divide the student list into two equal columns: the higher performing students and the lower performing students.
3. Pair the top reader in column one with the top reader in column two. Continue until all the students have partners.

Although two partners of slightly differing ability are partnered, both can benefit in their fluency development. Since students are taught to monitor their partner's reading, this activity engages both partners in fluency monitoring practices and improves their own self-monitoring during reading. Fluency practice need not take long periods of time and can be effectively implemented in 15 to 20 minutes per day or every other day. The rest of the instructional time should be spent on enhancing the other components of improving fluency, depending on the students' need. Adding a comprehension task for adolescent readers strengthens fluency instruction at this level.

Vocabulary

Vocabulary refers to students' knowledge and memory of words' meanings. One of the oldest findings of educational research is that reading comprehension and vocabulary knowledge are highly correlated with one another and that knowledge of individual word meanings accounts for as much as 50-60 percent of the variance in reading comprehension (Stahl & Nagy, 2006). In order to keep up with literacy demands as students progress through the grades, they must learn the meanings of approximately 2,000–3,000 words a year. Because word knowledge continues to be developed, grown, and refined throughout our lives and is typically acquired over many exposures, and because we can't possibly directly teach 2,000-3,000 words a year, educators should consider the following instructional approaches when planning for vocabulary instruction:

- Explicit vocabulary instruction with opportunities to link the meanings to text
- Indirect encounters with words
- Word consciousness
- Independent word-learning strategies

Explicit Vocabulary Instruction. It is beneficial to identify a set of key vocabulary words to teach explicitly and in depth. Research has shown that the direct instruction of at least 400 words per year (i.e., 10 words per week during the school year) produces gains in vocabulary and comprehension (Beck et al., 2002; Biemiller, 2003). However, to keep up with the number of words students must learn over twelve years of school, students can be given in-depth instruction of 20 words per week for 36

weeks per school year. To maximize instructional time, it is essential that words for explicit and direct instruction be chosen carefully. Isabel Beck recommends that teachers select words with high utility across content areas. Typically, these words are academic vocabulary terms and are a combination of general academic words and domain-specific academic words.

To teach words explicitly, follow an instructional routine that includes a student-friendly definition and provides examples and non-examples, with multiple opportunities to practice using the terms and multiple exposures to the words.

Indirect Encounters with Words. Research shows that one's breadth of word knowledge has a stronger relationship with reading comprehension than the depth/fluency of word knowledge (Tannenbaum et al., 2006). To ensure this breadth of word knowledge and since it is not possible to explicitly teach 2,000-3,000 words per year, it is necessary that teachers provide opportunities for indirect encounters with words. These indirect exposures can take the form of wide, independent reading, reading aloud, and listening to language. One example of indirect encounters is simply using more complex vocabulary in teacher instruction. Nonie LeSaux and her colleagues at Harvard discovered that students made more progress as readers when teachers intentionally used complex oral vocabulary than they made in traditional intervention groups. Her "8 for 8" talk can be found here.

Word Consciousness

Word consciousness involves building interest in and curiosity about words and an enjoyment of learning new words. Activities that can foster word consciousness include creating a word-rich classroom, studying word histories, playing word games, and displaying word walls. These types of activities can be implemented school-wide to enhance motivation for learning new words.

Independent Word Learning Strategies

Teaching students how to apply word analysis skills can help them exponentially grow their own vocabularies. Vocabulary instruction should include the study of morphology (prefixes, suffixes, root words and their meanings) and how to apply morphology as a cognitive strategy when students encounter an unknown word. Because students might not know how to apply these strategies, it is important that instruction occur in the application of such a strategy.

Kieffer and LeSaux (2007) suggest the following steps for using morphology as a cognitive strategy:

1. Recognize that you don't know the word.
2. Analyze the word for morphemes that you recognize.
3. Hypothesize the meaning of the word based on word parts.
4. Check the hypothesis with the context.

Teachers should provide explicit vocabulary instruction both as part of the reading and language arts classes as well as part of content-area classes such as science and social studies. Teachers should provide repeated exposure to new words in multiple contexts and allow for sufficient practice sessions in vocabulary instruction. Students should be given opportunities to use new vocabulary in a variety of contexts, such as discussion, writing, and extended reading. Learning specialized vocabulary contributes to the success of reading among adolescent students. By giving students explicit instruction in vocabulary, content-area teachers help them learn the meaning of new words and strengthen their independent skills in constructing the meaning of text (Kamil, 2008).

Comprehension
The ultimate goal of reading is to obtain meaning from the text. Even when a student is working on basic reading skills, the goal is comprehension. Comprehension instructional practices can be implemented class wide in any setting in which reading for meaning is emphasized, including content areas.

Word study, fluency, background knowledge, and vocabulary are all essential to facilitating reading comprehension. Because the need to gain meaning from text increases dramatically as students progress through school, instructors must know how to apply comprehension strategies for adolescent readers (Biancarosa & Snow, 2004; Perfetti, Landi, & Oakhill, 2005).

Strategies are most beneficial when students learn and practice them in meaningful contexts. For example, use a relevant text or textbook in the content area targeted for instruction to teach students how to derive the main idea. Multi-component strategies combine several comprehension strategies into an organizational system, or plan, for reading.

However, teaching isolated comprehension strategies cannot close the comprehension gap. Researchers are currently revisiting prior research on the role of background knowledge in comprehension. Early evidence that background knowledge was critical in developing comprehending readers comes from Recht and Leslie in 1988, who found that poor readers with high background knowledge performed better than high readers with low knowledge. While the literature is fairly limited at this point, some promising practices have arisen. These include providing opportunities to make the reading meaningful to a task within other coursework as well as providing wide reading opportunities to expand background knowledge.

In a 2010 study by Fisher, Ross, and Grant, 9th grade earth science students were divided by class periods into a treatment and control group. The materials, lecture, and teacher were the same for both groups, but in addition to traditional methodology, the treatment group simply read widely for 10-12 minutes each day about the current science topic. Students selected their own materials from a pre-assembled set of texts that included a wide range of materials from picture books to technical documents. The treatment students outperformed their peers on both near and distal measures, including the state assessment, with an effect size of 0.73 (Fisher, 2010).

The recommended comprehension instructional practices include:

- Giving students adequate instruction to become proficient in each strategy before combining strategies in a multi-component approach.
- Using the same procedures across content-area classes when teaching a specific strategy.
- Actively engaging students in using multiple strategies through cooperative learning, reciprocal teaching, group discussions, and other interactive modes.
- Supporting students in generalizing strategy use across contexts, with a goal of enabling them to apply strategies independently and automatically whenever they are reading (they need support and practice to generalize skills).
- Teaching students to self-regulate their use of strategies in order to know which strategy to use, when to use it, and why. To benefit from reading tasks, reading must

be flexible so that students can shift their approach if one strategy or technique is not working.

Skills, Strategies, and Activities

As leadership teams begin planning for effective literacy instruction for all students, keep in mind that teachers must understand how skills, strategies, and activities are different.

Skills relate to the idea of proficiency. The student can orchestrate all of the aspects of the task well and, in most cases, automatically (e.g., reading, knitting, cooking).

Strategies are a set of procedures or steps which an individual learns and then uses more and more independently in order to solve a problem (e.g., chunking). Strategies are more like systematic aids for learning. While strategies have some basic steps or procedures, they are adjusted to meet the demands of each new, but related, task.

Activities are structures that reinforce instruction and promote the development of strategies and skillfulness in reading (e.g., phoneme/grapheme mapping and word sorts). Activities are good for reinforcing/solidifying things, but not for teaching something new.

Professional Development for Instruction and Ensuring Fidelity

It is imperative that the leadership team plan for the significantly challenging task of providing support to staff. Professional development must be carefully planned and implemented to enable staff members to change their instructional practices and fully support MTSS.

The first step is selecting instructional strategies/practices, which should be recorded on the Tier 1 Protocol. The second step is planning ongoing support of staff to implement the necessary practices. To achieve fidelity of implementation, staff members need initial training as well as ongoing coaching and support to use these practices effectively and efficiently.

The building should also have a process in place to formally monitor the implementation of the instructional practices. In this manner, response and support via coaching can be provided in a timely and encouraging manner. The Kansas MTSS classwide intervention model includes a fidelity check that supports consistency of instruction. This is not an evaluation tool, but rather a way to reduce the variance in treatment.

The following steps can be used to decide how to support staff in the use of evidence-based instructional practices:

- Develop a plan to provide professional development to appropriate instructional staff members (including EL, Migrant, Title, SPED, paraprofessionals).
- Determine the key elements of instruction that need to be monitored for fidelity.
- Determine a method (e.g., walk-through, peer coaching) to monitor key elements for fidelity.
- Develop and implement a plan to provide training and coaching to instructional staff members who need additional assistance in providing instruction, as identified through monitoring. Monitor the plan for fidelity of implementation.

Professional development activities must be differentiated in order to support the individual needs of

staff members as they acquire the necessary knowledge and skills, enabling them to implement the specified instructional strategies and practices with fidelity. Initial and ongoing training should be differentiated based on the expectation of use, alignment of practices, and prior knowledge and should also be built on prior professional development activities. The leadership team needs to review the Tier 1 Protocol to remind the team which instructional practices were identified to be supported.

Planning Professional Development

The building leadership team will identify the professional development needs related to the implementation of instructional strategies and practices by identifying and considering the targeted staff and the qualities of each specified practice.

In planning professional development, it is helpful for the leadership team to consider the following questions specific to each instructional strategy or practice:

- Which staff members, if any, have experience with or have previously received professional development on the strategy/practice?
- Which staff members need to attend initial professional development on the strategy/practice?
- Who will provide the professional development and when (date) will the initial professional development be provided?
- Who will monitor the use/implementation (fidelity) of the strategy/practice and how often?
- Which method will be used to monitor the use/implementation (fidelity) of the strategy/practice (walk through, peer observations, etc.)?
- How will this practice be sustained for new staff members and others who need additional support?

These questions are designed to help leadership teams as they begin the development of an overall professional development plan. Once specific decisions are made, the building leadership team should record the results on the building's results-based staff development plan and/or on a professional development plan. The leadership team should also consider whether the discussion of professional development and fidelity of instruction has led to a need to develop an action plan or to add any items to the Stop-Doing list.

Review Policies and Practices for Instruction

Once the instructional practices plan has been completed, the leadership team should review district and building policies and practices regarding instruction to identify whether there are any policies and practices that need to be changed to align with the Tier 1 Protocol. The leadership team should also consider whether the discussion of policies and practices regarding instruction has led to a need to develop an action plan or to add any items to the Stop-Doing list.

TEAM DISCUSSION
1. Are there any policies (rules/guidelines) that require, prevent, or otherwise influence how, when, and what instructional strategies are used?
2. What are the practices (routines/traditions) that require, prevent, or otherwise influence how, when, and what instructional strategies are used?
3. Are there any practices that belong on the Stop-Doing list?

Curriculum

An understanding of reader development, the five areas of reading, and how reading skills are acquired is essential when considering a school's curriculum materials. This knowledge will assist schools in ensuring that the highest-quality curriculum is selected and that the essential components are addressed through Tier 1 (core), Tier 2, and Tier 3 curricula.

Core Curriculum

A strong core reading program must meet district curriculum mandates, align with the Kansas State Standards, be based on the five essential components of reading instruction and include the right doses at the right time. Dr. Jack Fletcher recommends that schools adopt programs that are explicit, comprehensive, and provide ample opportunities for practice (Fletcher, 2018). At all levels, the staff needs to consider what core skills and knowledge will be required of all students and what core curriculum materials will be used to provide that instruction. Regardless of whether the core skills and knowledge are taught through a comprehensive core curriculum, such as what is typically seen at the elementary level or through content-area classes as students transition to the secondary level, the purpose is still the same. Each school must establish and provide curriculum materials that will be used to teach core skills, strategies, and knowledge.

Materials comprising the core curriculum must support good-quality classroom instruction to ensure that all students meet or exceed state and local standards, benchmarks, and indicators in all areas. The materials should also be evaluated to determine the adequacy of support these materials provide for the acquisition of core skills, strategies, and knowledge. A first step in determining the core curriculum's effectiveness is to identify what is being taught at each grade level and in each course and the curricular materials currently being used. Core curriculum should be evaluated and selected to ensure that the curriculum at each grade level systematically and explicitly focuses on the acquisition of skills.

After careful analysis, the leadership team should determine if the core curriculum is adequate or if it needs to be strengthened. One way to determine if the core curriculum is adequate is by analyzing universal screening data. Analysis of the universal screening data at the systems level provides information that can be used to examine the effectiveness of the instructional supports to help determine when changes should be made. When used at the systems level, the universal screening data should be used formatively to identify the need for support at the school level. Instructional supports may include aspects of the system such as the curricula and programs used in the school, including both the core reading program and any supplemental materials or interventions and the fidelity of implementation of curricular/instructional programs. Keep in mind that major curricular decisions should not be based on a single data point, but trend data over time.

Selecting and/or Evaluating Core Curriculum

If the district seeks to evaluate existing or potential new resources, there are a variety of tools to help with that process. The Reading League provides a rubric for evaluating a new program at this site. In addition to using universal screening data, the document "Reviewing Reading Programs K-6" provides guidelines to assist teams in reviewing core reading programs and can be found at the Center on Instruction's website (www.centeroninstruction.org). In reviewing materials, educators will be positioned to make the necessary decisions as to whether there are existing gaps in the materials that

should be filled. Educators will also be able to make decisions about discontinuing or replacing curricula in a coordinated and consistent manner due to the lack of effectiveness or a research base.

Establishing Effective Interventions for Reading

According to Torgesen (2006, p. 1), "we will never teach all our students to read if we do not teach our students who have the greatest difficulties to read. Getting to 100% requires going through the bottom 20%." The most efficient way to provide interventions for struggling learners is through small groups in addition to core instruction. This allows the instruction to be targeted to the students' specific needs, while providing more opportunities to respond and receive feedback.

Intervention curricula at Tier 2 and Tier 3 should be different from core curriculum and provide targeted and/or comprehensive intervention support. Targeted skill-based lessons are more systematic, explicit, and focused on a small number of specific skills at a time (e.g., consonant digraphs, vowel teams, r-controlled vowels) (Moats, 2019). Moats (2019) suggested that the choice of reading interventions depends on a student's instructional need and what is likely to work best, not based on chronological age or grade level. Research has demonstrated that older students who struggle with reading at the word level benefit from instruction in word study (Scammacca et al., 2007). "A student who has difficulty decoding words should receive instruction in word study whether he is in first grade, fourth grade, or 12th grade. The instructional materials used may vary depending on age and grade level, but the learning objectives remain the same" (Boardman et al., 2008, p. 5).

In an MTSS, the universal screening data (accuracy and fluency scores) and the diagnostic process are used to group students according to their needs and targeted instructional focus. This method provides an efficient method to determine an appropriate instructional match to meet students' needs. The following graphic provides an example of how students are grouped in an MTSS using oral reading fluency scores from the universal screener to determine the instructional focus for intervention groups.

Determining Instructional Focus Using Oral Reading Fluency Data	
Group 1: Accurate and Fluent *May need enrichment in addition to core instruction*	Group 2: Accurate but Slow *May need fluency and vocabulary/comprehension instruction*
Group 3: Inaccurate and Slow *Focus on Accuracy with Phonological Awareness/Phonics/Sight Word Recognition*	Group 4: Accurate and Fluent but Low Comprehension *May need support in vocabulary/comprehension*

Although interventions may be guided by different programs than the classroom core program, the instructional routines used to teach the skills and knowledge should be consistent with the instruction

provided in the classroom. **Instruction, not only in the classroom, but also in the intervention and other support programs (i.e., Title and special education), should be complementary and mutually reinforcing. Too many programs with too many different instructional routines lead to confusion for struggling readers**. Regular collaborative team meetings in which classroom teachers and intervention specialists discuss student needs and progress are key to a successful school-level intervention system.

For supplemental and intensive support to be provided in grades K-3, curriculum materials must be selected that focus on skill-based instruction, which refers to the five essential areas of reading (i.e., phonemic awareness, phonics, fluency, vocabulary, and comprehension). For intensive supports, curricular materials may differ from those used for supplemental instruction, as students are typically missing many skills or concepts, thus requiring a more comprehensive intervention. Once these curricular materials are provided with fidelity, the problem-solving aspect of the MTSS hybrid model can be used to further intensify and customize supports for students at the intensive level.

Instruction for supplemental support for adolescents is typically provided through targeted strategy-based instruction, while intensive support for adolescents is skill-based instruction. These targeted strategies will be described in more depth in the Instruction Section.

Just as staff reviewed and evaluated the core curriculum, it is imperative to review the current supplemental and intensive materials to determine what will work best to meet students' academic needs. Curricula for supplemental and intensive instruction should utilize scientific based reading research (SBRR) interventions that are aligned to the core curricula.

One of the leadership team's challenges is to identify resources that may already be available in the system to provide effective interventions for students. It is critical that the leadership team ensure that intervention programs are implemented regularly with fidelity. Teams should identify the current materials and critically evaluate them to ensure that all essential skills are represented and that the materials will support both targeted skill- or strategy-based instruction (supplemental) as well as comprehensive instruction (intensive). In doing this, staff will be positioned to make the necessary decisions regarding whether gaps exist in the materials that should be filled. Staff members will also be able to make decisions about discontinuing or replacing curricula in a coordinated and consistent manner due to the lack of effectiveness or research support.

A variety of evidence-based interventions and instructional materials can be found to match learners' needs within each of the groups. It is important to remember that programs do not teach. Success does not depend on which program you buy but on how trained your teachers are to deliver excellent instruction. Prior to selecting, purchasing, or using any instructional materials, teams will want to carefully review the research base and match it to the student population (Hall, 2011).

After making final curricular selections, building teams should develop a curriculum protocol so that staff members will know what curriculum to use for core instruction and intervention. The interventions are chosen from a list of scientific research bases designed for specific areas of concern. The collaborative teams determine which intervention is to be used first based on the universal screening CBM data. Once the intervention begins, progress monitoring data are used to determine if the intervention needs to be adjusted, intensified, or customized based on pre-established decision rules (McCook, 2006). Once the curriculum protocol is developed, building teams need to determine a

management system for organizing and using the materials selected to ensure that all staff members providing supplemental and intensive intervention know where the materials are located and how they are organized, thereby allowing for efficient planning for instruction.

Effective Intervention Curricula for Reading

Important characteristics for an effective intervention system have been identified, including the following interventions (Torgesen, 2006, p. 7):

- Must be based on the student's need determined by assessment data.
- Should be offered as soon as it is clear that the student is lagging behind in the development of skills or knowledge critical to reading growth.
- Must significantly increase the intensity of instruction and practice, which is accomplished primarily by increasing instructional time, reducing the size of the instructional group, or doing both.
- Must provide the opportunity for explicit (direct) and systematic instruction and practice along with cumulative review to ensure mastery.
- Must provide skillful instruction including good error correction procedures, along with many opportunities for immediate positive feedback and reward.
- Must be guided by, and responsive to, data on student progress.
- Must be motivating, engaging, and supportive; a positive atmosphere is essential.

Professional Development for Curricula

Once the curriculum materials have been selected, it is necessary to provide professional development that is comprehensive, sustained, and intensive enough to support all staff members who are expected to use the curricula to provide instruction. Simply having curriculum materials available at each level (i.e., core content, supplemental, intense) does not ensure appropriate use. Staff members must have a working knowledge of the curriculum content and materials as well as an understanding of the planning and pacing process for lesson development. Furthermore, leadership teams must set clear expectations that curricular materials will be implemented and used with fidelity and provide professional development to support such outcomes.

Professional development activities must be differentiated in order to support the individual needs of staff members as they acquire the necessary knowledge and skills enabling them to implement the specified curriculum with fidelity. Initial and ongoing training should be differentiated based on the expectation of use, alignment of materials, and prior knowledge of the content area; such training should also build on prior professional development activities.

Ensuring Fidelity of Curricula

The professional development plan for curriculum implementation is dynamic in nature and results in the curriculum being implemented with fidelity. It is a plan that proactively identifies activities based on individual staff learning needs and will result in the knowledge and skills necessary to utilize the curriculum. It ensures that staff members are accessing and utilizing curricular materials in the expected manner by planning for and conducting intermediate and follow-up activities. To accomplish this, leadership teams should establish methods for monitoring the use of the curriculum by individual teachers from which information is collected and utilized to differentiate among ongoing professional

development and support for each staff member.

Activities for monitoring the individuals' fidelity of curriculum implementation are not intended to be punitive, but rather should be understood as a piece of the overall professional development plan, resulting in further staff support as needed. To accomplish this, a method to check for the correct use of the curriculum materials must be established. Many purchased curricula and programs come with fidelity-monitoring tools such as observation or walk-through forms. Leadership teams are responsible for establishing a plan to monitor and support the correct and effective use of curriculum materials.

Planning Professional Development

The building leadership team will identify the professional development needs related to curriculum implementation by identifying and considering the targeted staff and the qualities of each specified curriculum.

Core Curriculum

It is important that all staff members with instructional responsibility have a solid understanding of the core curriculum and receive professional development that enables them to implement it with fidelity. In this instance, this includes the staff responsible for instruction at all three MTSS levels. This is necessary to ensure that the curriculum that is implemented at the supplemental or intensive level is aligned with the core curriculum.

Supplemental and Intensive Curricula

Not all staff members in a building need to know how to implement the supplemental and/or intensive curricula; however, it is important that everyone involved in collaborative teams understand the skills targeted in each curriculum so all can be involved in instructional planning.

The most effective intervention teachers are likely those with the most training and experience. However, in the absence of well-trained and experienced intervention specialists, less-experienced teachers or even qualified paraprofessionals can deliver effective interventions if they are trained to use a well-developed, explicit, and systematic intervention program. A good rule of thumb is that the less experienced the teacher, the more structured and scripted the intervention program should be (Torgesen, 2006, p. 5). Media specialists, art teachers, and even assistant principals can provide effective interventions when they have been trained to use a well-structured and systematic intervention program.

In planning professional development, it is helpful for the leadership team to consider the following questions specific to each curriculum selected:

TEAM DISCUSSION
1. Which staff members are expected to implement the curriculum?
2. Which staff members, if any, have experience with or have previously received professional development on the curriculum?
3. Which staff members will not be implementing the curriculum but will be expected to align instruction with it?
4. Which staff members need to attend initial professional development on the curriculum?
5. When (date) will staff members be first expected to use the curriculum?
6. When (date) will initial professional development be provided?
7. Who will provide the professional development?
8. Who and how will it be ensured that staff members have all materials necessary to implement the curriculum?
9. Who will monitor the use/implementation (fidelity) of the curriculum?
10. What method will be used to monitor the use/implementation (fidelity) of the curriculum?
11. How frequently will the use/implementation (fidelity) of the curriculum be monitored?
12. When and how will ongoing professional development for staff members using the curriculum be provided?
13. When and how will professional development for staff members needing additional support to use the curriculum effectively be provided?
14. Who and how will professional development for new staff be provided?

These questions are designed to help leadership teams as they begin the development of an overall professional development plan. Once specific decisions are made, the building leadership team can record

the building's results on the staff development plan and/or on the professional development planning tool.

Secondary Level Structuring Supplement

Introduction

This structuring supplement was created to provide guidance regarding the unique challenges schools face when structuring a school in a Multi-Tiered System of Supports for students in grades 7 and above.

Unfortunately, the current state of reading performance among American students in grades 4 through 8 has not been encouraging. According to 2011 NAEP data, there has been no significant change in eighth grade since 1992. Only 34% of the nation's eighth graders were proficient readers in 2011, and the figures are even more dismal for African-American, Hispanic, and students of low SES, ranging from 15% to 26% proficient (Report Card, 2011).

"Typically, middle school struggling readers are identified when they fail to demonstrate adequate reading comprehension proficiency on high-stakes tests or standardized achievement tests" (Denton et al., 2007). Historically, reading intervention has responded at the secondary level by focusing on comprehension and comprehension strategies. However, the root cause of comprehension issues extends much deeper. There are many reasons students do not demonstrate grade-level proficiency. Often they struggle with fluency, and fluency depends on mastering automatic word recognition. In fact, a large number of struggling adolescent readers have phonological awareness, phonics, vocabulary, and background knowledge deficits as well. Because of the number of underlying issues that could inhibit students' progress as readers, the Kansas MTSS and Alignment Framework follows a systematic assessment approach to determine in which area reading has become problematic for a student.

The information provided in the supplement will give leadership teams more information regarding the assessment, curriculum, and instruction as it specifically relates to secondary-level students.

Assessment Process for Grades 7-12

During structuring, the building leadership team members will select what they will use for their universal screener. It is essential to determine the skill deficits that are impeding an adolescent reader's comprehension. This could be inaccuracy in reading words, inadequate fluency, limited vocabulary or background knowledge, or a lack of proficiency in comprehension. Because of the wide range of possible skill difficulties, an assessment system must be designed to target a particular deficit. In grades 7 and 8, a general comprehension assessment is an appropriate universal screener and is given to all students three times a year. In grades 9-12, screening is a multi-step process focused on reading comprehension. The first step in this screening process involves assessing students' grade-level comprehension skills once a year in the fall. Students who move in during the year should also be given this screener. This allows teams to identify students who need reading intervention as well as those who need extension or acceleration opportunities. This can be done by administering group assessments or computer-adaptive group assessments, such as aReading (FASTBridge), Northwest Evaluation Association/Measures of Academic Progress (NWEA MAP), SRI, STAR Reading, or other grade-level comprehension screeners. See Appendix for a more detailed list of potential universal screeners. Keep in mind that these screeners are not foolproof, and scores should be validated using multiple sources. These could include state assessment scores, course grades, attendance, and office discipline referrals. Once a reading concern is validated, teams should administer a CBM and follow the

recommendations within the complete structuring guide.

Curriculum and Instruction for Grades 7-12

Core Curriculum and Instructional Practices

The research-based instructional practices outlined in the *Kansas MTSS Structuring Guide: Module 2 Reading* are applicable to adolescent readers. Instruction at the secondary level should be explicit, differentiated, scaffolded, and systematic and provide many opportunities for student response and teacher corrective feedback.

At the secondary level, the core reading curriculum is implemented as part of content-area classes. Core reading instruction at the secondary level is two-fold: it involves disciplinary literacy and cross-curricular instructional practices. A strong core curriculum for adolescent readers must meet district curriculum mandates and align with the Kansas Common Core Standards. Disciplinary literacy involves access to the content of each course. "The idea is not that content-area teachers should become reading and writing teachers, but rather that they should emphasize the reading and writing practices that are specific to their subjects, so students are encouraged to read and write like historians, scientists, mathematicians, and other subject-area experts" (Bianacarosa & Snow, 2004). In other words, content teachers must "share the secrets of literacy that work in their content areas" (Lent, 2016).

Because reading skills are more embedded in content subject matter for older students, a cross-curricular approach is also essential in order to meet students' needs (Biancarosa & Snow, 2004). Kamil et al. (2008) recommended improving adolescent literacy in core content areas by providing explicit vocabulary instruction, direct and explicit comprehension strategy instruction, opportunities for an extended discussion of text meaning and interpretation, and increased student motivation and engagement in literacy learning.

Selecting a common comprehension or vocabulary strategy to be used throughout the building in all content areas is important with older students for transition of the skill. Selection of a building-wide strategy should be made with all disciplines in mind and through the use of both screening and informal assessments by all content teachers. By asking all teachers to observe the reading habits and behaviors of all students, the building leadership team not only gains valuable insights to support selection of the building-wide strategy, but also achieves strong buy-in from all staff. Strategies must be taught in all classes so that the use of those strategies within content reading assignments can be modeled and cues provided for their application. Students should be provided with enough guided practice in order to apply a strategy before teachers introduce a new strategy or procedure.

When reading strategies are isolated and only practiced during intervention, the older struggling reader compartmentalizes that skill as something only to be used at intervention time. However, if the strategy is used across the content-area classes, students get multiple opportunities each day to practice and internalize that strategy (Denton et al., 2007). "To leverage time for increased interaction with texts across subject areas, teachers will need to reconceptualize their understanding of what it means to teach in a subject area. In other words, teachers need to realize they are not just teaching content knowledge but also ways of reading and writing specific to a subject area" (Carnegie, 2006). This instruction benefits ALL students.

All teachers should be provided with strategies as part of their core curriculum to assist students with the acquisition of information by reading content-area materials in all subject areas. Since these strategies are considered the core curriculum across content-area classes, it is critical that these strategies be taught with fidelity. Professional development activities will be necessary to help teachers move from using initial strategies to applying multiple strategies and procedures. These include but are not limited to strategies for vocabulary acquisition, such as morphological analysis or building background knowledge through wide reading opportunities.

A building-wide strategy often selected by middle and high teachers focuses on vocabulary. Teachers must consider the high-leverage effects of teaching not only content-specific vocabulary, but also academic vocabulary in the content areas. Knowledge development of general academic words should occur while developing knowledge of the overall discipline. Studying disciplinary texts with appropriate scaffolding will help students understand discipline-specific words (Nagy & Townsend, 2012). Professional development activities will be necessary to help teachers move from using initial strategies to applying multiple strategies and procedures.

Some additional tips to consider as teachers plan Tier 1 instruction that supports all students' reading development are given below:

Explicit Vocabulary Instruction

- Dedicate a portion of regular classroom lessons to explicit vocabulary instruction.
- Provide repeated exposure to new words in multiple contexts and allow for sufficient practice sessions in vocabulary instruction.
- Give sufficient opportunities to use new vocabulary in a variety of contexts through activities such as discussion, writing, and extended reading.
- Provide students with strategies to make them independent vocabulary learners.

Opportunities for Extended Discussion of Text Meaning and Interpretation

- Carefully prepare for the discussion by selecting engaging materials and developing stimulating questions.
- Ask follow-up questions that help provide continuity and extend the discussion.
- Provide a task or discussion format that students can follow when they discuss text in small groups.
- Develop and practice the use of specific discussion protocol.

Student Motivation and Engagement

- Establish meaningful and engaging content-learning goals surrounding the essential ideas of a discipline as well as the specific learning processes used to access those ideas.
- Provide a positive learning environment that promotes student autonomy in learning.
- Make reading experiences more relevant to students' interests, everyday life, and/or important current events.
- Build classroom conditions to promote higher reading engagement and conceptual

learning through such strategies as goal setting, self-directed learning, and collaborative learning (Kamil, 2008).

Reading Next (Biancarosa & Snow, 2004) outlines the instructional elements that contribute to successful systems that are designed to improve adolescent reading achievement in middle and high school. Six of the elements directly target content literacy instruction:

1. Direct, explicit comprehension instruction in the strategies and processes that proficient readers use to understand what they read.
2. Effective instructional practices embedded in content. Language arts teachers use content-area texts, and content-area teachers provide instruction and practice in reading and writing skills specific to their subject area.
3. Extended time for literacy, including two to four hours of literacy instruction and practice that takes place in language arts and content-area classes.
4. Text-based collaborative learning involves students interacting with one another around a variety of texts.
5. Diverse texts at a variety of difficulty levels and on a variety of topics.
6. Intensive writing – Instruction is connected to the kinds of writing tasks students will have to perform well in high school and beyond (Biancarosa & Snow, 2004, p. 4).

Intervention (Tier 2 and Tier 3)

Supplemental Tier 2 intervention is designed to provide supplemental support to students who need targeted, focused instruction in reading. It is intended to focus primarily on instruction in comprehension and vocabulary strategies, with instruction in phonics such as word reading and/or reading fluency provided when needed. Some examples of supplemental strategies and materials might include a syllable-chunking strategy (referenced in the main structuring guide), using Cornell notes or the Rewards or Read Naturally curriculum, depending on the student's individual needs.
For middle and high school students, homogeneous instruction can be provided to groups of 10 to 16 students for 30 to 50 minutes per day or one class period, at least three to four days per week (McCook, 2006). When using specific programs, it is necessary to follow program guidelines if group sizes are specified.

Examples of Tier 3 curriculum include programs such as Phonics Boost, High Noon Decodable readers, or Wilson Reading. Refer to the resource list in the Implementation guide for more ideas. Intensive support for adolescent readers is provided in small, homogenous groups of one to four students for 50 to 60 minutes per day (Denton et al., 2007). An important point to remember when providing interventions at any level is that the skills taught through the curricular materials are focused on the students' instructional needs as determined by assessment and not by the student's chronological age or grade level. More detailed information on providing interventions to adolescent readers is found in the Reading Implementation Guide.

Scheduling for Grades 7-12

Several different models of instruction are available in the Appendix. However, some of them are more

easily applied to older students. Consideration needs to be given to the number of students requiring intervention, when interventions might be offered, and who might provide that instruction. Some schools choose to offer Tier 2 supports during an advisory or seminar time and provide Tier 3 as an elective course. Careful selection of the course name and a determination of whether or not students will get a grade for this class needs to take place at the building or even district leadership team level. Often extracurricular activities provide great motivation for students academically, and losing a credit for intervention might not be in the best interest of the student. The team should also consider offering intervention more than once a day and across courses offered multiple times in a day to ensure that the greatest number of students can receive both intervention and the courses they need to graduate or complete a CTE Pathway.

The following is a Secondary Instructional Model Example:

Core: content-area class period that includes:

- Teaching one common comprehension strategy at a time across content classes using common procedures

Supplemental (Tier 2): Required elective or seminar time

- Targeted strategy instruction

Intensive (Tier 3) – Required class

- Targeted skill instruction
- Comprehensive program

Professional Development

Most teachers who teach secondary students do not see themselves as reading teachers. They are comfortable teaching their content area but may need further support to incorporate reading strategies during content-area (core) instruction. They must also understand the literacy demands of their particular content area. Teaching foundational skills to students who need interventions is often an area in which they will need more intensive professional development. Language Essentials for Teachers of Reading and Spelling (LETRS) offer professional development that is grounded in the science of reading and aligns with the explicit, systematic instruction MTSS recommends. LETRS PD modules are available from certified trainers throughout the state.

There are several modules, but not all are necessary for secondary teachers. For more information and a list of trainers, please go to www.ksdetasn.org and find the link for LETRS on the left of the screen. In addition, Kansas MTSS trainers can provide more information on how to access additional training and support on adolescent literacy and specific research-based strategies.

Final Thoughts

The research on reading instruction for struggling adolescent readers shows that providing a strong evidence-based core curriculum combined with targeted intervention can be very effective. In their meta-analysis of multiple studies, the Center on Instruction found an overall effect size of .95. This means that students who received intervention outscored the comparison groups by almost one standard deviation (Scammaca et al., 2007).

This meta-analysis had several key findings related to struggling secondary readers (Scammaca et al.,

2007):

- Adolescence is not too late to intervene, and older students who participate in interventions can benefit.
- Older students with reading difficulties benefit from interventions focused both at the word level and at the text level.
- Teaching comprehension strategies to older students with reading difficulties is associated with an overall effect equivalent to a gain of about one standard deviation.
- Older students with reading difficulties benefit from improved knowledge of word meanings and concepts.
- Interventions provided by both researchers and teachers are associated with positive effects.
- Older students with learning disabilities benefit from reading intervention when it is appropriately focused.

References

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print.* Urbana-Champaign, IL: University of Illinois.

Archer, A. L., Gleason, M. M., & Vachon, V. L. (2003). Decoding and fluency: Foundation skills for struggling older readers. *Learning Disability Quarterly,* 89-101.

Beck, I. L., et al. (2002). *Bringing words to life: Robust vocabulary instruction*. Guilford Press.

Biemiller, A. (2003). Vocabulary: Needed If More Children Are to Read Well. *Reading Psychology, 24*(3-4), 323-335.

Biancarosa, G., & Snow, C. E. (2004). *Reading next: A vision for action and research in middle and high school literacy*. New York, NY: Carnegie Corporation.

Biemiller, A. (2001). *Teaching Vocabulary: Early, direct, and sequential*. The American Educator, *25*(1), 24-28.

Biemiller, A. (2005). Size and sequence in vocabulary development: Implications for choosing words in primary grade vocabulary instruction. In E. Hiebert, & M. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 223-242). Mahwah, NJ: Erlbaum.

Biemiller, A. (2001). Teaching Vocabulary: Early, direct, and sequential. *The American Educator, 25*(1), 24-28.

Blevins, W. (2000). *Teaching phonics and word study in the intermediate grades.* New York: Scholastic Professional Books.

Boardman, A. G., Roberts, G., Vaughn, S., Wexler, J., Murray, C. S., & Kosanovich, M. (2008). *Effective instruction for adolescent struggling readers: A practice brief.* Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Bos, C. S., & Vaughn, S. (2006). *Strategies for teaching students with learning and behavior problems* (6th ed.). Boston: Pearson Education.

Bryant, D. P., Goodwin, M., Bryant, B. R., & Higgins, K. (2003). Vocabulary instruction for students with learning disabilities: A review of the research. *Learning Disability Quarterly*, 117-128.

Carey, S. & Bartlett, E. (1978). Acquiring a single new word. *Proceedings of the Stanford Child Language Conference, 15*, 17-29. (Republished in *Papers and Reports on Child Language Development, 15*, 17-29.

Chall, J. (1983). *Stages of Reading Development.* New York, NY: McGraw-Hill.

Chall, J. S., Jacobs, V., & Baldwin, L. (1990). *The reading crisis: Why poor children fall behind.* Cambridge, MA: Harvard University Press.

Christ, T., & Wang., X. C. (2010). *Exploring preschoolers' use of semantic organizers to support meaning vocabulary development*. Roundtable presented at the annual meeting of the American Educational Research Association, Denver, CO.

Copple, C. & Bredekamp, S. (Eds.). (2009). *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8* (3rd ed.). Washington, DC: National Association for the Education of Young Children.

Coyne, M. D., Chard, D., Zipoli, R., & Ruby, M. (2007). Effective strategies for teaching comprehension. In M. D. Coyne, E. J. Kame'enui, & D. W. Carnine (Eds.), *Effective teaching strategies that accommodate diverse learners.* (3rd Ed.). Columbus, OH: Merrill Publishing Company.

Coyne, M., Simmons, D., & Kame'enui, E. (2004). Vocabulary instruction for young children at risk of experiencing reading difficulties. In *Vocabulary instruction: Research to practice*, eds. J. Bauman & E. Kame'enui, New York: Guilford, 41-58.

Craig, G. & Brown, K. (2021). RRQ – PA Materials in K Classrooms in Utah – Science of Reading 210513 KJB. *Reading Research Quarterly*. 1-24.

Curtis, M. (2004). Research and practice. In T. L. Jetton, & J. A. Dole (Eds.), *Adolescent literacy research and practice*. New York, NY: Guilford, 119-134.

Denton, C., Bryan, D., Wexler, J., Reed, D., & Vaughn, S. (2007). *Effective instruction for middle school students with reading difficulties: The reading teacher's sourcebook.* Retrieved April 19, 2011, from Vaughn Gross Center for Reading and Language Arts: http://www.meadowscenter.org/vgc/downloads/middle_school_instruction/RTS_Ch4.pdf

Deshler, D. (2006). Building a strong literacy foundation for high school excellence. In D. Clark (Ed.), *The challenge of high school reform*. Washington, DC: The Aspen Institute, 20-27.

Deshler, D. D., Palinscar, A. S., Biancarosa, G., & Nair, M. (2007). *Informed choices for struggling adolescent readers: A research-based guide to instructional programs and practices*. Newark, DE: International Reading Association.

Dickson, S. V., Chard, D. J., & Simmons, D. C. (1993). An integrated reading/writing curriculum: A focus on scaffolding. *LD Forum*, 12-16.

Ehri, L. (1999). Phases of development in learning to read words. In J. Oakhill & R. Beard (Eds.), *Reading Development and the Teaching of Reading: A Psychological Perspective*. Oxford, UK: Blackwell Publishers, 79-108.

Ellis, E. S., Worthington, L. A., & Larkin, M. J. (1994). *Executive summary of the research synthesis on effective teaching principles and the design of quality tools for educators.* University of Oregon: National Center to Improve the Tools of Educators.

Farrell, L., Hancock, C., & Smartt, S. (2006). *DIBELS (Dynamic Indicators of Basic Early Literacy Skills): The practice manual*. Boston, MA: Sopris West.

Fisher, D., Ross, D., & Grant, M. (2010). Building Background Knowledge: Improving Student Achievement Through Wide Reading. *The Science Teacher*, *77*(1), 23.

Fletcher, J. M., Lyon, G. R., Fuchs, L.S., & Barnes, M. A. (2019). *Learning Disabilities from Identification to Intervention, 2nd edition.* New York: Guilford Press.

Foorman, B. R., Francis, D. J., Beeler, T., Winikates, D., & Fletcher, J. M. (1997). Early interventions for children with reading problems: Study designs and preliminary findings.

Learning Disabilities: A Multi-Disciplinary Journal, 8, 63-71.

Fox, L., & Hemmeter, M. L. (2009). A program-wide model for supporting social emotional development and addressing challenging behavior in early childhood settings. In W. Sailor, G. Dunlap, G. Sugai, & R. Horner (Eds.), *Handbook of Positive Behavior Support* (pp. 177-202). New York: Springer.

Fuchs, L., & Fuchs, D. (2002). Curriculum-Based Measurement: Describing Competence, Enhancing Outcomes, Evaluating Treatment Effects, and Identifying Treatment Nonresponders. *Peabody Journal of Education, 77*(2), 64-84.

Gersten, R., Compton, D., Conner, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., Tilly, W. D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades.* U.S. Department of Education. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences.

Gibbons, K., Brown, S., Niebling, B. C. (2019). *Effective Universal Instruction: An Action-Oriented Approach to Improving Tier 1*. New York, NY: Guilford Press.

Gillon, G. T. (2004). *Phonological awareness: From research to practice*. New York: Guilford Press.

Gough, P., & Tumner, W. (1986) Decoding, reading and reading disability. *Remedial and Special Education, 7,* 6-10.

Graue, E., Clements, M. A., Reynolds, A. J., & Niles, M. D. (2004). More than teacher directed or child initiated: Preschool curriculum type, parent involvement, and children's outcomes in the Child–Parent Centers. *Education Policy Analysis Archives, 12,* 1-40.

Graves, M. F. (2006). *The vocabulary book: Learning and instruction.* Urbana, IL: Teachers College Press.

Hall, S. L. (2007). *A Principal's Guide: Implementing Response to Intervention*. Thousand Oaks, CA: Corwin Press.

Hart, B., & Risly, T. (1995). *Meaningful Differences in the Everyday Experience of Young American Children*. Baltimore, MD: Paul H. Brookes.

Hasbrouck, J., & Glaser, D. (2012). *Reading Fluency: Understanding and Teaching this Complex Skill.* Wellesley Hills, MA: Gibson, Hasbrouck, and Associates.

Hosp, M. K., Hosp, J. L., & Howell, K. W. (2007). *The ABCs of CBM: A Practical Guide to Curriculum-Based Measurement.* New York, NY: The Guilford Press.

Jayanthi, M., Gersten, R., & Baker, S. (2008). *Mathematics instruction for students with learning disabilities or difficulty learning mathematics: A guide for teachers.* Retrieved from http://www.centeroninstruction.org/files/Teaching%20Math%20to%20SLD%20LD%20Guide.pdf

Jitendra, A. K., Edwards, L. L., Sacks, G., & Jacobson, L. A. (2004). What research says about vocabulary instruction for students with learning disabilities. *Exceptional Children,* 299-322.

Johnson, E. S., Smith, L., & Harris, M. L. (2009). *How RTI works in secondary schools*. Thousand Oaks, CA: Corwin Press.

Jones, S., Burns, D., & Pirri, D. (2010). *Leading literacy change: Strategies and tools for administrators, teachers, and coaches*. Frederick, CO: Sopris West.

Juel, C., & Roper-Schneider, D. (1985). The influence of basel readers on first grade reading. *Reading Research Quarterly*, 134-152.

Justice, L. M., Pence, K., Bowles, R. B., & Wiggins, A. (2006). *An investigation of four hypotheses concerning the order by which 4-year-old children learn the alphabet letters.*

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices.* Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Kieffer, M. J., & Lesaux, N. K. (2007). Breaking down Words to Build Meaning: Morphology, Vocabulary, and Reading Comprehension in the Urban Classroom. *Reading Teacher, 61*(2), 134-144.

Kilpatrick, D. A. (2016) *Equipped for Reading Success.* Syracuse, NY: Casey & Kirsch Publishers.

Kilpatrick, D. A. (2015) *Essentials of Assessing, Preventing, and Overcoming Reading Difficulties.* Hoboken, NJ: Wiley Publications.

Knight-McKenna, M. (2008). Syllable Types: A Strategy for Reading Multisyllabic Words. *Teaching Exceptional Children, 40*(3), 18-24.

KSDE. (2005). *Kansas Early Learning Standards*. Topeka, KS.

Koskinen, P. S., & Blum, I. H. (1986). Paired repeated reading: A classroom strategy for developing fluent reading. *The Reading Teacher, 40*, 70-75.

Langenbert, D. N. (2000). *Report of the National Reading Panel: Teaching children to read.* Washington, DC: U.S. Department of Health and Human Services.

Lent, R.C. (2016). *This Is Disciplinary Literacy.* Thousand Oaks, CA: Corwin Press.

Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent variable longitudinal study. *Developmental Psychology*, 596-613.

McCook, J. E. (2006). *The RtI guide: Developing and implementing a model in your schools*. Arlington, VA: LRP Publications.

Moats, L. C. (2001). When older students can't read. *Educational Leadership*, 58.

Moats, L. C. (2001). Spelling: A window on linguistic development. In S. Brody (Ed.), *Reading instruction: Language, letters, and thought* (2nd Edition ed.). Milford, NH: LARC Publishing.

Moats, L. C. (2005). How spelling supports reading and why it is more regular and predictable than you may think. *American Educator,* 12-22.

Moats, L. C. (2011). DIBELS Summit. *Presentation*.

Moats, L. C., & Handcock, C. (2004). *LETRS module 8 assessment for prevention and early intervention: Language essentials for teachers of reading and spelling*. Longmont, CO: Sopris West Educational Services.

Moats, L. C., & Tolman, C. (2009). *LETRS: The challenge of learning to read* (2nd ed.). Longmont, CO: Sopris West Educational Services.

Moats, L. C., & Tolman, C. (2019) *LETRS Volume 1: Units 1-4.* Longmont, CO: Sopris West Educational Services.

Moats, L. C. (2005). Language Essentials for Teachers of Reading and Spelling. Longmont, CO: Sopris West.

Morsy, L. C., Kieffer, M., & Snow, C. E. (2010). Measures for measure: A critical consumers' guide to reading comprehension assessments for adolescents. New York, NY: Carnegie Corporation of New York.

Nagy, W., Berninger, V., & Abbott, R. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle school students. *Journal of Educational Psychology,* 134-147.

Nagy, W., Townsend, D. (2012). Words as Tools: Learning Academic Vocabulary as Language Acquisition. *Reading Research Quarterly*, *47*(1), 91-108.

National Assessment of Educational Progress, United States Department of Education. (2011). *Nations Report Card*. Retrieved from http://nces.ed.gov/nationsreportcard/pubs/main2011/2012457.aspx

National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel.* Washington, DC: National Institute for Literacy.

National Institute of Child Health and Human Development. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: U.S. Government Printing Office.

Neuman, S. B. (2010). Lessons from my mother: Response to the National Early Literacy Panel. *Educational Researcher, 39,* 301-305.

Neuman, S., Dwyer, J., & Neuman, E. (2008). *Developing vocabulary and conceptual knowledge for low-income preschoolers: An intervention study.* Ann Arbor, MI: University of Michigan.

Notari-Syverson, A., O'Connor, R. E., & Vadasy, P. F. (1998, 2006). *Ladders to Literacy: A preschool activity book.* Baltimore, MD: Paul H. Brookes.

Paulson, L. H., & Moats, L. C. (2010). *LETRS for early childhood educators*. Longmont, CO: Sopris West Educational Services.

Pearson, P. D., & Dole, J. A. (1987). Explicit comprehension instruction: A review of research and a new conceptualization of instruction. *Elementary School Journal,* 151-165.

Perfetti, C. A., Landi, N., & Oakhill, J. (2005). The acquisition of reading comprehension skill. In

M. J. Snowling, & C. Hulme (Eds.), *The science of reading: A handbook*. Oxford, UK: Blackwell, 227-247.

Phillips, B. M., & Piasta, S. B. (2013). *Phonological awareness and alphabet knowledge: key precursors and instructional targets to promote reading success.* Early childhood literacy: the National Early Literacy Panel and beyond, 95-116.

Pressley, M., Wood, E., Woloshyn, V. E., Martin, V., King, A., & Menke, D. (1992). Encouraging mindful use of prior knowledge: Attempting to construct explanatory answers facilitates learning. *Educational Psychologist,* 91-110.

Recht, D. R., & Leslie, L. (1988). Effect of prior knowledge on good and poor readers' memory of text. *Journal of Educational Psychology, 80*(1), 16-20.

Rosenshine, B. (1986). Synthesis of research on explicit teaching. *Educational Leadership,* 60-69.

Rosenshine, B., & Meister, C. (1992). The use of scaffolds for teaching higher level cognitive strategies. *Educational Leadership,* 26-33.

Roskos, K.A., Tabors, P.O., & Lenhart, L.A. (2009). *Oral Language and Early Literacy in Preschool*. Newark, DE: International Reading Association.

Sayeski, K., Burgess, K., Pianta, R., & Lloyd, J. (2001). *Literacy behaviors of preschool children participating in an early intervention program.* Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

Scammacca, N., Roberts, G., Vaughn. S., Edmonds, M., Wexler, J., Reutebuch, C. K., & Torgesen, J. K. (2007). *Interventions for Adolescent Struggling Readers: A Meta-Analysis with Implications for Practice*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Seidenberg, M. (2017). *Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It*. New York: Basic Books.

Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman, & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97-110). New York: Guilford Press.

Schuele, C. M. & Boudreau, D. (2008). Phonological awareness intervention: Beyond the basics. *Language, Speech, and Hearing Services in Schools, 39*, 3-20.

Shankweiler, D., Lundquist, E., Katz, L., Stuebing, K. K., Fletcher, J. M., Brady, S., Fowler, A., Dreyer, L. G., Marchione, K. E., Shaywitz, S. E., & Shaywitz, B. A. (1999). Comprehension and decoding: Patterns of association in children with reading difficulties. *Scientific Studies of Reading, 31*, 69-94.

Shaywitz, S. E. (2003). *Overcoming Dyslexia*. Random House Inc., NY.

Shinn, M. R. (1989). *Curriculum-Based Measurement: Assessing special children*. New York, NY: Guilford Press.

Shores, C., & Chester, K. (2009). *Using RtI for school improvement: Raising every student's achievement scores*. Thousand Oaks, CA: Corwin Press.

Stahl, S. A., & Nagy, W. E. (2006). *Teaching word meanings.* Mawhah, NJ: Lawrence Erlbaum Associates.

Stahl, S. A., Osborn, L., & Pearson, P. D. (1992). *The effects of beginning reading instruction: Six teachers in six classrooms*. Unpublished paper, University of Illinois at Urbana-Champaign.

Stecker, P., & Fuchs, L. (2000). Effecting superior achievement using curriculum-based measurement: The importance of individual progress monitoring. *Learning Disabilities Research and Practice,* 128-134.

Stipek, D., Feiler, R., Daniels, D., & Milburn, S. (1995). Effects of different instructional approaches on young children's achievement and motivation. *Child Development, 66,* 209-223.

Tannenbaum, K. R., Torgesen, J. K., Wagner, R. K. (2006). Relationships between Word Knowledge and Reading Comprehension in Third-Grade Children. *Scientific Studies of Reading*, *10*(4), 381-398.

Teale, W. H., & Sulzby, E. (1986). Emergent literacy as a perspective for examining how young children become readers and writers. In W. H. Teale, & E. Sulzby (Eds.), *Emergent Literacy: Writing and Reading.* Norwood, NH: Alblex Publishing.

Tomlinson, C. A., & Allan, S. D. (2000). *Leadership for differentiating schools and classrooms.* Alexandria, VA: ASCD.

Torgesen, J. K. (2006). Intensive reading interventions for struggling readers in early elementary school: A principal's guide. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Torgesen, J. K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S. et al. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruction.* Portsmouth, NH: RHC Research Corporation, Center on Instruction.

University of Oregon. (n.d.). DIBELS retrieved from https://dibels.uoregon.edu/. Vaughn Gross Center for Reading and Language Arts. (n.d.). Retrieved from http://www.meadowscenter.org/vgc/

Underwood, S. (2018). What is the Evidence for an Uninterrupted, 90-Minute Literacy Instruction Block? *Education Northwest*, Web. 22 May 2019.

Vukelich, C., & Christie, J. (2004). *Building a foundation for preschool literacy: Effective instruction for children's reading and writing development*. Newark, DE: International Reading Association.

Wasik, B. A., Bond, M. A., & Hindman, A. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology, 98,* 63-74.

Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development*, 848-872.

Wren, S. (2013). Reading and the Three Cueing System. *Balancedreading.com.* Southwest Educational Development Laboratory (SEDL). Web. 22 January 2013

Yopp, H. K. (1992). Developing phonemic awareness in young children. *The Reading Teacher, 45*, 696-703.

Appendix: Critical Skills for Universal Screener

Recommended Grade Levels	Skills Measured	Example Sub-tests
Pre-K	Language and vocabulary, letter names and sounds, first sounds, rhyme and alliteration	Early reading composite
K-1	Automaticity in letter name Identification and/or segmenting phonemes	Letter naming fluency (LNF) Letter sound fluency First sound fluency Onset sounds Phoneme segmentation Word segmenting
1	Proficiency and automaticity in the Alphabetic Principle	Nonsense word fluency (NWF) Nonsense words
1-3	Reading connected text accurately and fluently	Oral reading fluency (ORF) CBMreading
4-6	Reading connected text accurately and fluently	Oral reading fluency (ORF) CBMreading
	Basic comprehension	Re-tell/Comprehension Questions aReading Maze/Daze
7-8	Reading connected text accurately and fluently	CBMreading Oral reading fluency (ORF)
9-12	Reading Comprehension	aReading STAR reading NWEA MAP

Appendix: Reading Diagnostic Assessments **NOTE: Informal diagnostic tools are highlighted in gray**			Five Essential Reading Components				
Reading Assessment (listed in alphabetical order)	Grade Level Assessed	Type	Phonological	Phonics	Fluency	Vocabulary	Comprehension
Comprehensive Reading Inventory (CRI) 2007 Edition	K-12	Criterion Referenced	X	X	X	X	X
Comprehensive Test of Phonological Processing (CTOPP)	K-12+	Norm Referenced	X				
Diagnostic Decoding Surveys	1-12	Criterion Referenced		X			
Developmental Reading Assessment – 2 (DRA-2)	K-3	Criterion Referenced	X	X	X	X	X
Diagnostic Assessments of Reading (DAR)	K-12	Criterion Referenced	X	X	X	X	X
Gates MacGinitie Reading Tests, 4th Edition	K-12+	Norm Referenced	X	X		X	X
Group Reading Assessment and Diagnostic Evaluation, 2001 Edition (GRADE)	Pre-K-12+	Norm Referenced	X	X		X	X
Gray Oral Reading Test (GORT IV)	K-12	Norm Referenced		X	X		X
Peabody Picture Vocabulary Test, 4th Edition (PPVT)	Pre-K-12+	Norm Referenced				X	
Phonological Awareness Literacy Screening (PALS)	1-3	Criterion Referenced	X	X	X	X	X
Phonological Awareness Skills Test	K+	Criterion Referenced	X				
Test of Word Recognition Efficiency (TOWRE)	K-12+	Norm Referenced	X	X	X	X	X
Qualitative Reading Inventory- 4(QRI-4)	K-12	Criterion Referenced		X			X
Quick Phonics Screener	1+	Criterion Referenced		X			

Appendix: Tiered System of Support Comparison of Models

Comparison of Models

Model	Considerations	Advantages	Disadvantages	Scheduling	Resources
Pull Out	• Works best when numbers of students needing assistance is small and/or done across grade levels. • Students in group need to have the same instructional needs.	• Most similar to traditional practice. • Minimal logistical planning needed.	• Transition time to resource needed. • Most schools have more students to serve than this model accommodates. • Coordination with planning and reviewing progress monitoring data between teachers needed. • General education teachers need to make sure students being pulled out are not missing core curriculum.	• Typically, each grade level receives support ½ hour to one hour each day. • Need to ensure that students served with this model are not pulled out of the general education curriculum.	• This model rarely requires extra or changes in resources.
In Class	• Works best when numbers of students needing assistance is small. • Students in group need to have same instructional needs.	• Students stay in class for intervention time. • Classroom teacher is able to work with at least one group of his/her own students. • Students may be moved more flexibly in and out of intervention time.	• Most schools have more students to serve than this model accommodates. • Coordination with planning and reviewing progress monitoring data between other teachers who help is needed.	• Typically, each grade level receives support ½ hour each day. • Can be done while other students are rotating through centers.	• Classroom supervisor may be necessary to protect uninterrupted intervention time.

Model	Considerations	Advantages	Disadvantages	Scheduling	Resources
Intervention Team	• Most likely used when number of students needing intervention is large or beyond what can be done by the teacher and one support staff.	• A team can accommodate a larger number of groups. • Larger numbers of groups can make for more options when students' needs change. • Allows time for additional support for Tier III.	• Transition time to new groups needed. • General education teacher disconnected from student and instructional planning. • Interventionists report wanting to have the students for longer periods of time. • Training and support need to be coordinated. • May be easy to overlook the need to make core curricular changes.	• Typically, each grade level receives support ½ hour each day.	• Depending on the number of intervention groups necessary, resources may need to be rethought in the school. • Make sure adequate training and support is built into the model. • Make sure students most in need have the most qualified interventionists.
Walk to Intervention Cross-Class	• Similar to intervention team approach, but grade-level teachers used as interventionists.	• Designated time by grade level ensures that all students receive extra reading time without conflicts to missing general education curriculum. • Allows for several certified staff to provide reading interventions. • Easier to develop intervention groups for students needing enrichment. • When teachers have built in collaborative time, discussions about groupings and individual students can be built in. • Allows time for additional support for Tier III.	• Transition time to new groups needed. • General education teacher sometimes disconnected from student and instructional planning.	• Each grade level coordinates intervention time with other reading teachers (reading specialists/ special education)	• Depending on the number of intervention groups necessary, teachers may be able to provide more guided assistance to students barely on track. On the other hand, other building or district personnel could be called upon to assist.

Model	Considerations	Advantages	Disadvantages	Scheduling	Resources
Walk to Intervention Cross-Grade	• Consider when the number of students on track is considerably less than those not on track.	• Allows for more individualized and intense instruction based on reading and skill level. • Focus on reading increased due to no transition time necessary. • Teacher provided time to know students' skill level and increased time allows him/her more flexibility in meeting needs.	• Requires difficult decisions to be made regarding other important curriculum matters. • Requires thinking about things very differently.	• Scheduling takes into consideration resources needed and grade level requirements.	• Resources can be allocated in larger chunks of time.
SECONDARY ONLY: Alternative Class (Required Elective)	• Students with similar needs are scheduled with an intervention teacher for basic skills instruction while remaining in the core English/Language Arts (ELA) or math course.	• Works well in high school schedule. • Enables students to progress in core content classes while improving basic literacy or math skills. • The interventionist may be able to provide both student instruction and teacher consultation. • Convenient for using purchased curriculum for struggling readers.	• Students lose the choice of what may be a preferred elective class. • Requires having a staff member with specialized knowledge of basic skills instruction.	• Requires that students with common needs be available during the same class period.	• The number of students and their needs will determine how many class periods the interventionist needs to schedule.
Intervention Team (Homeroom)	• Each teacher takes a group of students for intervention, including students at benchmark or above.	• Works well in middle school schedules. • Providing intervention during homeroom time helps with fluidity of grouping.	• Requires common planning time for teachers to collaborate.	• Instructional groups can be matched to teachers' individual skills.	• Some buildings may need to increase the amount of time allowed for homeroom.
SECONDARY ONLY: All School Seminar or	• All students receive extensions, additional practice, or	• Many secondary schools already have an advisory or seminar	• Requires that focus of seminar be changed to	• The way students are scheduled into	• Changed purpose of seminar will require that more

Model	Considerations	Advantages	Disadvantages	Scheduling	Resources
Advisory Period	supplemental or intense instruction during seminar time.	period built into their schedules. • Ensures that all students (advanced learners, benchmark students, and students with learning difficulties) receive some type of intervention. • Enables departmental planning for interventions.	instruction. This may mean a loss of time for student organizations and may also conflict with scheduled teacher planning times.	seminar may need to be reorganized.	teachers are engaged in instruction during that period.

SECONDARY ONLY: Option 1	Option 2	Option 3	Option 4
• All English/Language Arts (ELA) classes are scheduled throughout the school day and are heterogeneously grouped. • A reading support elective (mandatory) is added to the schedule to allow for enrichment for Tier 1 or Tier 2 intervention. • Students in need of Tier 3 intervention receive 2 periods of intense instruction in addition to the ELA class. • Intervention classes are blended across grades and populations based on student need. • Tier 2 and Tier 3 intervention classes are scheduled during the same period as much as possible.	• ELA classes are scheduled throughout the day. • ELA classes are heterogeneously grouped. • Students are pulled out for Tier 2 or Tier 3 intervention during other classes. • Tier 2 intervention may occur within another class (e.g., social studies). • Intervention classes are homogeneously grouped based on student need. • Intervention classes are blended across grades and populations.	• ELA classes are double blocked (one period core credit and one period elective). • ELA classes are scheduled at the same time of day as much as possible. • ELA classes are homogeneously grouped based on assessed need and grade level. • Pacing, intensity, content, exposure to the core, and explicit instruction are based on assessed student need. • Classes are blended across populations. • This option is useful when large numbers of students need intervention.	• ELA classes are heterogeneously grouped for students in Tier 1 and Tier 2. • ELA classes are scheduled throughout the day. • Students requiring Tier 3 intervention are removed from grade level curriculum and receive 2 blocked periods of intense intervention. The class counts for one grade level and one elective class. Classes are blended across grade levels and populations. • Tier 2 classes are homogeneously grouped and replace one elective class. Classes are blended across grade levels and populations. • Tier 2 and Tier 3 classes are parallel scheduled as much as possible.

Grade Level group: 8th Grade

Strategy or Activity: To demonstrate understanding of what ozone is and why it is important.