

INSTRUCTIONAL FRAMEWORK

JULY - 2018



"The teacher is the most important in-school factor in student achievement" (Ladson-Billings, 1999) "The student is the most important variable in the learning equation" (Murphy, 2013)

The MNPS instructional framework is built on the belief that classroom experiences should allow students to:

- make meaning
- build knowledge

Students must **think critically** about the information that is in the world around them to make sense of and make meaning from it. Knowledge and information are less effectively learned when simply transmitted and more effectively learned through **collaborative** learning experiences.

All instruction in MNPS is standards-based and follows the grade- or course-level standards as adopted by the TN State Board of Education. Teachers must identify focused and targeted learning goals based on these standards. These goals and their corresponding success criteria must be communicated with students so that students can own their learning and track progress toward them.

This framework should serve as a compass toward which everyone within MNPS is constantly striving. It is visually framed to be "outside-in," starting with the school conditions all the way to student outcomes, Learning and Innovation Skills. Each layer is necessary to enable each subsequent inner layer.

SCHOOL CONDITIONS

The outer rectangle establishes the conditions of the school for staff, teachers and students:

DISTRIBUTED LEADERSHIP Leadership among the staff should be distributed in a way that **all** adults in the building have ownership and responsibility. Students should also hold leadership and/or participatory roles within the school and/or classroom.

RECIPROCAL ACCOUNTABILITY The principal-agent dynamic within the school requires reciprocal accountability wherein administrators and staff hold teachers accountable for quality instruction and professional responsibilities. Teachers hold administrators responsible for setting the vision and establishing the conditions necessary to be effective while also providing the necessary tools and resources to be successful. Similarly, all adults in the building hold students accountable for appropriate behavior, responsible decision-making, and academic progress. Students must hold teachers accountable for bringing their best work to the classroom every day.

High	Reciproca
EXPECTATIONS	ACCOUNTABILITY
Positive	Distribute
CULTURE	LEADERSHI

HIGH EXPECTATIONS Expectations across the building must be high and consistently communicated. There should be high levels of academic press so that all students understand they are expected to work, engage, and achieve at high levels. These expectations also apply to the behavior of students and their interactions with others. All members of the school community should exhibit a growth mindset toward themselves and others.

POSITIVE CULTURE The culture of a school is constantly cultivated and oriented toward positivity, safety, openness, respect, and collaboration.

School Culture is defined and developed along three primary fronts (Murphy, 2013):

- 1. Communities of Pastoral Care for Students
- 2. Professional Community for Teachers

Ambitious Pedag

3. Communities of Engagement for Parents



Three guiding principles provide the foundation for the MNPS instructional framework:

- ambitious pedagogy
- equitable pedagogy
- SEL integrative pedagogy

AMBITIOUS PEDAGOGY Ambitious pedagogy is "teaching and learning that moves beyond the straight forward communication or transfer of facts and skills to instruction that has teachers and students engaged in deep learning by making meaning of rich academic content. Co-engaging in authentic, practical, and intellectual puzzles and creating new knowledge and capabilities in themselves and in others" (Moje, 2017). Ambitious instruction includes rich tasks through which students learn content, concepts, and skills. In order for students to **collaborate**, **communicate**, and **think critically** and **creatively**, they must be doing so about rich content.

Ambitious instruction also situates the learner at the center of the educational experience and constantly in close proximity to the content and knowledge being built. Teachers guide and advance student **thinking** via timely **academic feedback**, effectively orchestrating classroom discourse and frequent, focused **questioning**.

"If you truly want to engage kids, you have to pull back on control and create the conditions in which they can tap into their own inner motivations." (Daniel Pink) "Our words can shape identities. What we say to others can deeply affect their sense of who they are and who they might become." (Paula Denton) **EQUITABLE PEDAGOGY** Teaching practices that strive for equity within the classroom consider the identity, efficacy, and agency of each learner. Learning experiences and materials consider the cultural heritage and identities of the learners in the classroom. Teachers are responsive to students, their backgrounds, and life experiences. Teachers build on the assets or "funds of knowledge" (Gonzalez, et al., 2009) that students bring with them.

Equitable pedagogy considers the learning identity of each student. Learning experiences throughout a student's academic career form his or her identity in each discipline. These experiences come through messages received in the form of how a teacher responds to **questions**, how a student works in groups, and grades received, for example. Each student should feel empowered with the agency to make choices, form conjectures and verify them with evidence and rational thought, and change course in service of a better approach. Each student should also have the opportunity to take public risks and **communicate** their ideas toward the **collaborative** construction of knowledge.

Equitable pedagogy is differentiated instruction that provides access for each learner to the rich, grade level content called for through ambitious pedagogy. Strategic supports (e.g. appropriate scaffolds, building background knowledge, language supports) meet the needs of all students, including English Learners and Students with Disabilities, in accessing

rigorous grade-level curriculum and standards.

SEL INTEGRATIVE SEL integrative pedagogy positions relationships as the central ingredient to learning. Inherent within SEL integrative instruction is the growth mindset necessary to achieve established high expectations. High levels of academic press coupled with proper social and emotional supports and the shared belief that students will achieve at the level of expectation promote high levels of student learning.

"The development of a child's potential depends on the ability of the teacher to perceive the child's possibilities." (Rudolf Dreikurs)



The <u>5 SEL Core Competencies</u> should be explicitly taught and integrated into academic learning. These core competencies support the development of critical social and emotional skills necessary for the growth of each individual student and authentic engagement in the classroom community.

- Self-Awareness
- Self-Management
- Social Awareness
- Responsible Decision-Making
- Relationship Skills

CORE 4 (FROM TEAM INSTRUCTIONAL RUBRIC)

The orange circle encompasses quality instruction as defined by the TN TEAM instructional rubric. MNPS has identified 4 indicators from TEAM for focus that have the highest leverage for learning and support the development of the Learning and Innovation Skills:

- Questioning
- Academic Feedback
- Problem Solving
- Thinking

QUESTIONING AND ACADEMIC FEEDBACK	PROBLEM SOLVING AND THINKING
These indicators provide a framework for the types of	These indicators emphasize the importance of
questions to ask within a lesson and how teachers	'teaching' thinking. Research shows four main ways to
respond to students' comments and questions. The	teach thinking: Questioning, Modeling, Responding
indicators also address how teachers use student	and Structuring. The [TEAM] Teaching Standards
questions and feedback to make adjustments in	provide a guide for explicitly teaching thinking.
instruction. Teachers are encouraged to engage and	Thinking and Problem-Solving are closely connected,
plan for student-to student academic feedback and	and this link has a profound effect on how teachers
questioning.	teach thinking and what students do as a result of their
	thinking.

TAP: The System for Teacher and Student Advancement, 2013



LEARNING AND INNOVATION SKILLS (4CS)

The P21 Framework for 21st Century Learning was developed with input from educators, education experts, and business leaders to define and illustrate the skills, knowledge, expertise, and support systems that students need to succeed in work, life, and citizenship.

The Framework continues to be used by thousands of educators and hundreds of schools in the U.S. and abroad to put 21st century skills at the center of learning. All elements of the Framework are critical to ensure 21st century readiness for every student.

When a school, district, or state builds on this foundation, combining knowledge and skills with the necessary support systems of standards, assessments, curriculum and instruction, professional development, and learning environments - students are more engaged in the learning process and graduate better prepared to thrive in today's digitally and globally interconnected world.



Learning and Innovation skills are what separate students who are prepared for increasingly complex life and work environments in today's world and those who are not.

They include:

- Creativity and Innovation
- Critical Thinking and Problem Solving
- Communication
- Collaboration

P21 Partnership for 21st Century Learning, 2007

"Laughter relieves stress and boredom, boosts engagement and well-being, and spurs not only **creativity** and **collaboration**, but also analytic precisions and productivity." (Alison Beard) MNPS believes in teaching, modeling, and providing feedback on the development of the Learning and Innovation skills alongside content standards. Doing so will best equip students to be successful in school and life. MNPS also believes the TEAM instructional rubric provides high quality expectations for instructional practices in every classroom. The following matrix demonstrates the alignment of each of the Core 4 components of Questioning, Academic Feedback, Thinking, and Problem Solving from the TEAM instructional rubric and the Learning and Innovation Skills.

> Terminology is adapted from the TEAM rubric, P21 Framework for 21st Century Learning, and the TN Department of Education.

Learning and Innovation Skills (4Cs)

	Creativity	Critical Thinking	Communication	Collaboration
Questioning	 Teacher question types include creation and evaluation levels. Teachers include strategies such as the Question Formulation Technique to guide inquiry. Students use a wide range of idea creation techniques (such as brainstorming) to respond to and generate more questions. 	 Teacher questions are high quality and appropriately sequenced with attention to the learning goals. They regularly assess and advance student learning. Students generate questions that lead to further inquiry and learning. They identify and ask significant questions that clarify various points of view and lead to authentic solutions. 	 Teacher questions require students to regularly cite evidence. Students articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts. 	 Teacher questions regularly require active response including shared and group responses. Students exercise flexibility and willingness to work together to make necessary compromises to accomplish a common goal.
Academic Feedback	 Teacher engages students in giving high quality feedback to one another. Students develop, implement, and communicate new ideas to others effectively. They are open and responsive to new and diverse perspectives. 	 Teacher circulates to prompt student thinking. Students effectively analyze and evaluate evidence, arguments, claims and beliefs. They analyze and evaluate major alternative points of view to solve authentic problems and/or challenges. 	 Teacher models effective feedback during guided practice. Oral and written feedback is consistently academically focused, frequent, high quality, and references expectations. Students listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions. They communicate effectively in diverse environments. 	 Teacher models and provides feedback during student collaborative work. Students assume shared responsibility for collaborative work, and value the individual contributions made by each team member. They are open and responsive to new and diverse perspectives; incorporate group input and feedback in the work.
Thinking	 Teacher thoroughly teaches creative thinking where students create, design, imagine, and suppose. Students generate a variety of ideas and alternatives and elaborate, refine, analyze, and evaluate their own ideas in order to improve and maximize creative efforts 	 Teacher thoroughly teaches analytical thinking where students analyze, compare and contrast and evaluate. Students use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation. Students utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact. They synthesize and make connections between information and arguments. They reflect critically on learning experiences and processes. 	 Teacher expects students to explain information and provide opportunities for students to monitor their thinking to ensure they understand their learning, are attending to critical information, and are aware of the learning strategies they are using and why. Students use multiple modes to communicate arguments using precise and knowledgeable claims, citing evidence, and integrating information from multiple sources, while acknowledging counterclaims and evidentiary weaknesses. 	 Teacher expects students to explore and review a variety of ideas, models, and solutions to problems. Students collaborate with peers and experts to generate ideas and analyze problems from multiple perspectives and viewpoints and where best to apply and implement what they learn in real-life scenarios.
Problem- Solving	 Teacher reinforces problem solving types including creating, designing, categorizing, and predicting outcomes. Students create new and worthwhile ideas (both incremental and radical concepts). They demonstrate originality and inventiveness in work and understand the real-world limits to adopting new ideas. They solve different kinds of non-familiar problems in both conventional and innovative ways and act on creative ideas to make tangible and useful contributions to the field in which the innovation will occur. 	 Teacher implements activities that teach and reinforce observing and experimenting, drawing conclusions, and identifying relevant information. Students analyze how parts of a whole interact with each other to produce overall outcomes in complex systems. They interpret information and draw conclusions based on the best analysis. 	 Teacher reinforces problem solving types such as formulating arguments and justifying solutions. Students use communication for a range of purposes (e.g. to inform, instruct, motivate, and persuade). 	 Teacher reinforces problem solving types including generating ideas and improving solutions. Students demonstrate ability to work effectively and respectfully with diverse teams to solve problems.

ENGLISH LANGUAGE ARTS

The Tennessee State Standards for ELA ask students to read more complex texts. Students will be challenged and asked questions that push them to refer back to what they've read. There is great emphasis on **critical-thinking**, problem-solving, analytical, and **communication** skills that are developed and enhanced through **collaborative** experiences.

TEXT – TALK – TASK

Daily, students will be engaged in text, talk, and task in order to master the expectations of the Tennessee ELA Standards. Complex, grade-level, worthy texts must be the core of daily instruction. **Critical thinking** and problem solving skills are essential for students as they must have the ability to closely and attentively read texts in a way that will help them understand and enjoy and build knowledge from complex works of literature or informational texts. Students must develop **communication** skills in order to speak and write about knowledge, ideas, and information gleaned from reading complex texts. Through **collaboration** in small and large groups, students will deepen and expand their understanding of the rich concepts to which they will be exposed. Students will be expected to generate and evaluate ideas and demonstrate **creativity** through voice, originality, and innovation in the tasks that will be required to demonstrate understanding of rich concepts.



The following are key shifts called for by the TN State Standards:

1. Regular practice with <u>complex texts</u> and their academic language

Rather than focusing solely on the skills of reading and writing, the ELA/literacy standards highlight the growing complexity of the texts students must read to be ready for the demands of college, career, and life. The standards call for a staircase of increasing complexity so that all students are ready for the demands of college- and career-level reading no later than the end of high school. The standards also outline a progressive development of reading comprehension so that students advancing through the grades are able to gain more from what they read.

Closely related to text complexity and inextricably connected to reading comprehension is a focus on academic vocabulary: words that appear in a variety of content areas (such as *ignite* and *commit*). The standards call for students to grow their vocabularies through a mix of conversation, direct instruction, and reading. They ask students to determine word meanings, appreciate the nuances of words, and steadily expand their range of words and phrases. Vocabulary and conventions are treated in their own strand not because skills in these areas should be handled in isolation, but because their use extends across reading, writing, speaking, and listening.

2. Reading, writing, and speaking grounded in evidence from texts, both literary and informational

The standards emphasize using evidence from texts to present careful analyses, well-defended claims, and clear information. Rather than asking students questions they can answer solely from their prior knowledge and experience, the standards call for students to answer questions that depend on their having read the texts with care.

The reading standards focus on students' ability to read carefully and grasp information, arguments, ideas, and details based on evidence in the text. Students should be able to answer a range of *text-dependent* questions, whose answers require inferences based on careful attention to the text.

Frequently, forms of writing in K–12 have drawn heavily from student experience and opinion, which alone will not prepare students for the demands of college, career, and life. Though the standards still expect narrative writing throughout the grades, they also expect a command of sequence and detail that are essential for effective argumentative and informative writing. The standards' focus on evidence-based writing along with the ability to inform and persuade is a significant shift from current practice.

3. Building knowledge through content-rich nonfiction

Students must be immersed in information about the world around them if they are to develop the strong general knowledge and vocabulary they need to become successful readers and be prepared for college, career, and life. Informational texts play an important part in building students' content knowledge. Further, it is vital for students to have extensive opportunities to build knowledge through texts so they can learn independently.

Classroom Expectations

Instruction should be student-focused, with ongoing opportunities for students to read, interact and engage with a text and each other, with the teacher guiding the students to gain their own insights from reading. In the secondary classroom, students should build the necessary reading skills, including comprehension and stamina, in order to read, understand, build knowledge, and write about increasing complex and lengthy texts. Every unit of study should focus on close reading of a grade level text, including re-reading and chunking particularly difficult section, speaking and listening about the text through text-dependent questions (requiring students to cite evidence and analyze content and structure), vocabulary development through the text (with a focus on understanding academic vocabulary or Tier 2 words using the context), and writing to text (writing about what they have read).

Keeping in line with the shifts there are expectations of what should be present in daily instruction. Student Achievement Partners created core actions and indicators of what should be evident in classrooms.

Pre-K – 12th Grade

Culture of Learning: Are all students engaged in the work of the lesson from start to finish?	
Indicators/Evidence	Rating
A. Students complete instructional tasks, volunteer responses and/or ask appropriate questions.	1 Not Yet
Evidence:	2 Somewhat
	3 Mostly
	4 Yes
B. Students follow behavioral expectations and directions.	1 Not Yet
Evidence:	2 Somewhat
	3 Mostly
	4 Yes
C. Students execute transitions, routines and procedures in an orderly and efficient manner.	1 Not Yet
	2 Somewhat
	3 Mostly
	4 Yes
D. Students are engaged in the work of the lesson from start to finish; there is a sense of urgency about how time is used.	1 Not Yet
	2 Somewhat
Evidence:	3 Mostly
	4 Yes
E. Students and their teacher demonstrate positive relationships and strong classroom culture.	1 Not Yet
	2 Somewhat
Evidence:	3 Mostly
	4 Yes

Core Action 1: Focus each lesson on a high-quality text (or multiple texts)		
Indicators/Evidence	Rating	
A. The majority of the lesson is spent reading, writing, or speaking about text(s).	Yes- The lesson is focused on text or multiple texts.	
Evidence:	this lesson.	
B. The text(s) are at or above the complexity level expected for the grade and time in the school year.	Yes- The text(s) are at or above both the qualitative and quantitative complexity expected for the grade and time in the school year.	
Evidence:	No- The text(s) are below both the qualitative and quantitative complexity expected for the grade and time in the school year.	
C. The text(s) exhibit exceptional craft and thought and/or provide useful information.	Yes- The quality of the text(s) is high – they are well written and/or provide useful	
Evidence:	information. No- The quality of the text(s) is low – they are poorly written or do not provide useful information.	

FOUNDATIONAL SKILLS: PRE-K – 2 (and beyond)

Core Action 1: Instruction explicitly and systematically provides all students with the opportunity to master foundational skills.		
Indicators/Evidence	Rating	
A. The foundational skills being taught are aligned to the standards for this grade.	4- Yes 3- Mostly 2- Somewhat	
Evidence:	1- Not Yet	
B. Foundational skills instruction is explicit , including teacher modeling and student practice.	4-Yes 3-Mostly 2-Somewhat	
Evidence:	1- Not Yet	
C. Students have sufficient opportunities to practice reading and writing newly acquired foundational skills.	4- Yes 3- Mostly 2- Somewhat	
Evidence:	1- Not Yet	
D. Students connect acquisition of foundational skills to making meaning from reading.	4-Yes 3-Mostly	
Evidence:	2-Somewnat 1- Not Yet	
E. Students spend time on skills they are still working to develop, not those they have already mastered.	4- Yes 3- Mostly	
	2- Somewhat 1- Not Yet	

Note: Core Actions 2 and 3 are not relevant to Foundational Skills lessons.

Pre-K – 12th Grade

Core Action 2: Employ questions and tasks, both oral and written, that are text specific and reflect the standards.				
Indicators/Evidence:	Rating			
A. Questions and tasks address the text by attending to its particular structure(s), concepts, ideas, and details.	 4- Most questions and tasks return students to the text to build understanding. 3- Many questions and tasks return students to the text to build 			
Evidence:	understanding. 2- Few questions and tasks return students to the text to build understanding. 1- Questions and tasks do not refer to the text. NOT OBSERVED			
B. Questions and tasks require students to use evidence from the text to demonstrate understanding and to support their ideas about the text. These ideas are expressed through both written and oral responses.	 4- Most questions and tasks require students to cite evidence from the text. 3- Many questions and tasks require students to cite evidence from the text. 			
Evidence:	 2- Few questions and tasks require students to cite evidence from the text. 1- Questions and tasks can be answered without evidence from the text. NOT OBSERVED 			

C. Questions and tasks attend to the words, phrases, and sentences within the text.	 4- Vocabulary questions and tasks consistently focus students on the words, phrases, and sentences that matter most and how they are used in the text. 3- Vocabulary questions and tasks mostly focus students on the words that matter most and how they are used in the text.
Evidence:	 2- Vocabulary questions and tasks rarely focus students on the words that matter most and how they are used in the text. 1- No questions and tasks focus students on the words that matter most and how they are used in the text. NOT OBSERVED
D. Questions are sequenced to build knowledge by guiding students to delve deeper into the texts and graphics.	 4- Most questions are intentionally sequenced to support building knowledge. 3- Some questions are intentionally sequenced to support building knowledge.
Evidence:	 2- Few questions are intentionally sequenced to support building knowledge. 1- Questions seem random and are not intentionally sequenced to support building knowledge. NOT OBSERVED

Pre-K – 12th Grade

Core Action 3: Students are responsible for doing the thinking in this classroom.		
INDICATORS/EVIDENCE		
A. Students display persistence with challenging tasks , particularly when providing textual evidence to support answers and responses, both orally and in writing.	 All students consistently show persistence with challenging tasks and support their answers with appropriate textual evidence. Most students consistently show persistence with challenging tasks and support their answers with appropriate textual evidence. 	
Evidence:	 2 - Some students consistently show persistence with challenging tasks and support their answers with appropriate textual evidence. 1 - Few students consistently show persistence with challenging tasks and support their answers with appropriate textual evidence. NOT OBSERVED 	
B. Students provide precise responses . When responses are imprecise, the teacher probes understanding but students do the complex thinking	 4 – All students provide precise responses, or refine their imprecise answers about the teacher probes for understanding. 3 – Most students provide precise responses, or refine their imprecise answers about the teacher probes for understanding. 2 – Some students provide precise responses, or refine their imprecise answers 	
Evidence:	about the teacher probes for understanding. 1 – Few students provide precise responses, or refine their imprecise answers about the teacher probes for understanding. NOT OBSERVED 	
C. Students share their developing thinking about the content of the lesson.	 4 – All students share their developing thinking about the content of the lesson. 3 – Most students share their developing thinking about the content of the lesson. 2 – Some students share their developing thinking about the content of the lesson. 	
Evidence:	 Few students share their developing thinking about the content of the lesson. NOT OBSERVED 	
D. Students explain their thinking , orally and/or in writing, using evidence from the text(s).	 4 – All students explain their thinking using evidence from the text(s). 3 – Most students explain their thinking using evidence from the text(s). 2 – Some students explain their thinking using evidence from the text(s). 	
Evidence:	1 – Few students explain their thinking using evidence from the text(s). □ NOT OBSERVED	
E. Students build on or respectfully question each other's responses, using evidence from the text to defend their thinking .	 4 – All students build on or respectfully question the responses of others using evidence from the text to defend their thinking. 3 – Most students build on or respectfully question the responses of others using evidence from the text to defend their thinking. 	
Evidence:	 2 - Some students build on or respectfully question the responses of others using evidence from the text to defend their thinking. 1 - Few students build on or respectfully question the responses of others using evidence from the text to defend their thinking. □ NOT OBSERVED 	

MATHEMATICS

In MNPS, the math classroom should hold the rich math task at the center of the students' mathematical experience, regardless of what stage of learning they are currently in. A rich math task is part of a balanced approach to mathematics that includes conceptual understanding, problem-solving, and procedural fluency, and offers every student the opportunity to engage in meaningful, rigorous mathematics. Because a rich math task takes time to solve and lends itself to multiple perspectives or strategies, robust use of these tasks creates the context in which students utilize the learning and innovation skills of creativity, critical thinking, communication, and collaboration.

It is important to note that there will likely be opportunities for direct instruction within a task-based unit, but it should not be the primary teaching modality. Direct instruction shouldn't be thought of as lecture, but instead as an intentional opportunity for teachers to model and formalize ideas for students. During periods of direct instruction, teachers still need to provide students with opportunities to engage with the mathematics being studied as they conjecture, critique the reasoning of others, and use their sense-making abilities to deepen their understanding of the mathematics being taught. Teachers need to select the appropriate time for direct instruction so that it can support students in their learning, not take over the thinking process.

MNPS Mathematics Teachers should:

- Give "group-worthy" tasks that are complex enough to provide opportunities for productive struggle and the need for collaborative work. (communication, collaboration)
- Allow students to share various solution paths; acknowledge the importance of understanding the reasoning behind all viable solution paths. (creativity, communication)
- Utilize assessing and advancing questions to determine each student's current level of understanding and to push their thinking toward the mathematical goal for the lesson. (critical thinking)
- Implement tasks by circulating through the structures and routines of a lesson: task launch, exploration phase (both individual and small-group), and share-discuss-analyze phase. (communication, collaboration)
- Provide access to materials, models, tools and/or technology-based resources that assist students in making conjectures necessary for solving problems. (critical thinking)

LAUNCH · EXPLORE · SUMMARIZE		
Students should engage in critical thinking :	Students should engage in creativity :	
 Understand the meaning of a problem and look for entry points to its solution. Look for patterns to inform decision-making; use number sense to determine whether a solution is reasonable. Determine what tools and models to use in any given situation. Critique the reasoning of their peers; make connections between different solution paths and representations. Check his/her work for precision (appropriate labels, reasonableness of answers, precise 	 Explore multiple solution paths for a problem- solving scenario. Create visual models to represent a mathematical situation. Choose appropriate manipulatives or drawings to help make sense of the context. Move flexibly between representations of a mathematical model. 	
calculation, etc.)	Students should an as in collaboration.	
Students should engage in communication :	Students should engage in collaboration :	
 Share mathematical ideas with peers in partners, small-groups, and whole-group settings. Justify solutions using appropriate mathematical vocabulary. Ask questions of their peers and teacher to gain deeper understanding. Discuss representations, explaining how they connect to the quantities in a problem and the relationships between the quantities. 	 Co-construct solutions with a partner of small group. Propose possible solution paths with a small group in order to determine which path to follow. Support peers through periods of productive struggle. Listen to and decide if the arguments of others make sense; ask probing questions to clarify or improve the arguments. 	

Core Action 1: Implement tasks that promote reasoning and problem solving.			
Key Indicator/ Note Evidence Observed	Rating		
The task is launched in such a way that eliminates contextual or language barriers (e.g. using videos, pictures, or artifacts to provide context; utilizing multiple reading strategies to help students make sense of the task). Students are given clear expectations about the work they are to engage in.	YES	NO	NOT OBSERVED
Students are given adequate time to formulate ideas individually before working with a partner or small group.	YES	NO	NOT OBSERVED
Tasks have an entry point for all students. Students are given the opportunity to determine what tools, models, or visual representations to use to make sense of the context. NOTE: If students are practicing a known concept, a tool or model may be specified for them.	YES	NO	NOT OBSERVED

Core Action 2: Facilitate meaningful mathematical discourse.			
Key Indicator/ Note Evidence Observed	Rating		
Students share mathematical ideas with peers in partners/small-groups and in a whole-group setting. Students critique the reasoning of others.	YES	NO	NOT OBSERVED
Students are regularly encouraged to ask questions of their peers and teacher to gain a deeper understanding of the mathematical content.	YES	NO	NOT OBSERVED
Students discuss mathematical representations (e.g. tables, diagrams, equations, graphs, etc.) explaining how they connect to the quantities in a problem and the context.	YES	NO	NOT OBSERVED

Core Action 3: Provide opportunities for students to exhibit mathematical practices while en	gaging with the content of the	
lesson.		
Key Indicators		
Rubric:		
4 – Teacher provides many opportunities, and most students take them.		
3 – Teacher provides many opportunities and some students take them; or teacher provides some opportunities and most students take		
them.		
2 – Teacher provides some opportunities, and some students take them.		
1 - Teacher provides few or no opportunities, or few or very few students take the opportunities provid	led.	
The teacher poses challenging problems/tasks that provide opportunities for students to share their developing		
thinking about the content of the lesson.		
	4 3 2 1 NOT OBSERVED	
Students share their ideas, conjectures, and solution paths. Students persevere in solving problems in the face		
of initial difficulty.		
The teacher establishes a classroom culture in which students feel safe sharing their thinking, even if it is		
different than that of their peers. Multiple solution paths are both encouraged and explored during class		
discussion.	4 3 2 1 NOT OBSERVED	
Students elaborate on their ideas or the ideas of their peers in order to make connections.		
The teacher connects and develops students' informal language to precise mathematical language appropriate		
to their grade level standards.		
	4 3 2 1 NOT OBSERVED	
Students use precise mathematical language in their explanations and discussions.		
The teacher asks students to explain and justify their work and questions in such a way that helps students		
realize when to revise their thinking.		
	4 3 2 1 NOT OBSERVED	
Student work includes revisions, especially revised explanations and justifications.		

SCIENCE

The MNPS vision for science instruction stems from the Committee on a Conceptual Framework for New K-12 Science Education Standards.

The committee's vision takes into account two major goals for K-12 science education: (1) educating all students in science and engineering and (2) providing the foundational knowledge for those who will become the scientists, engineers, technologists, and technicians of the future...The framework and subsequent standards will not lead to improvements in K-12 science education unless the other components of the system—curriculum, instruction, professional development, and assessment—change so that they are aligned with the framework's vision." (Report of the Committee on a Conceptual Framework for New K-12 Science Education Standards, 2012).

Given the subsequent Framework for K-12 Science Education, the Next Generation Science Standards were developed. Concurrently, the State of Tennessee pursued their own set of new science standards, which similarly evolved from the same framework. Similar to the NGSS, Tennessee's new science standards incorporate three dimensions of science learning: Disciplinary Core Ideas, Crosscutting Concepts, and Science and Engineering Practices.



Disciplinary Core Ideas: the key ideas in science that have broad importance within or across multiple science or engineering disciplines. These core ideas build on each other as students progress through grade levels and are grouped into the following four domains: Physical Science, Life Science, Earth and Space Science, and Engineering. **Crosscutting Concepts:** help students explore connections across the four domains of science, including Physical Science, Life Science, Life Science, Earth and Space Science, and Engineering Science, Life Science, Earth and Space Science, and Engineering Design.

Science and Engineering Practices: describe what scientists do to investigate the natural world and what engineers do to design and build systems. The practices better explain and extend what is meant by "inquiry" in science and the range of cognitive, social, and physical practices that it requires. Students engage in practices to build, deepen, and apply their knowledge of core ideas and crosscutting concepts.

These foundational aspects of the new Tennessee Science Standards align with the 4Cs at the center of the MNPS Instructional Framework (United States-based Partnership for 21st Century Skills, 2017).

- Critical Thinking
- Communication
- Collaboration
- Creativity

As such, MNPS science educators will embed the 4Cs within the instruction, aligning them with the three dimensions of science learning.



From a pedagogical standpoint, the new standards will empower educators to design exceptional learning experiences that empower students' use all 4-C's to engage in Scientific and Engineering Practices. Critical thinking and creativity are essential to these practices and students must work collaboratively to problem solve and communicate their findings. The core ideas, which build upon each other as students progress through their K-12 learning experience, require students to think critically on building upon prior knowledge and scaffolding concepts as they master scientific content. Crosscutting concepts require students to be creative and think critically about how ideas permeate the silos of each core subject area and areas of science (physical science, chemistry, biology, earth and space science) in an interdisciplinary way. Additionally, students will work collaboratively with their peers to communicate the results of their investigations problems/projects (Project-Based Learning).

Core Actions in Effective Science Classrooms:

Note: Not all practices may observed during a given lesson; however, each practice should be consistent over time.

Toochors Will	Students Will
Heip students understand broad importance of multiple scientific and	Be able to think critically beyond lesson to communicate why concepts,
engineering disciplines.	practices and information are important to them as individuals and human
	kind.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Build upon students' knowledge as they progress through grade levels	Be able to connect previous scientific learnings (previous lessons and
and incorporate the 4 domains (physical-, life-, earth and space-science	grades/courses) to the concept at hand through use of critical thinking skills.
and engineering).	
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Help students explore connections across the four domains of science	Be able to explain and communicate how a specific concept related to other
and engineering.	domains of science.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Facilitate and environment where students act as scientists to	Be able to demonstrate high level scientific practices including collaboration
investigate and design and build systems as engineers do.	with others, creativity, critical thinking, and communication.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Develop and facilitate activities/lessons that foster students' inquiry and	Have opportunity to work collaboratively and as individuals to think
the broad range of cognitive, social, and physical practices.	critically and creatively through scientific inquiry and practices.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Facilitate and plan activities that engage students in activities to build,	Think critically about how lesson/activity applies in a broad sense and
deepen, and apply their knowledge of core ideas and crosscutting	creatively design research questions and possible solutions through
concepts.	hypotheses.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Engage in the use of technology as appropriate to enhance students'	Use technology to communicate their arguments and findings, collaborate
learning. Think in class and blended learning experiences.	with others in class and beyond, evaluate prior research through critical
	thinking.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Connect lesson/activities/objectives to concepts covered in related	Communicate an understanding of how scientific concepts connect to other
courses (math, science, arts, computers, ELA). Think Interdisciplinary.	disciplines.
YES NO NOT OBSERVED	YES NO NOT OBSERVED
Help connect students to importance of concepts in real world including	Through critical thinking and creativity, will collaborate and be able to
careers, college, and social issues/socio-scientific issues. Think setting	communicate the connection of scientific concepts' benefit to humans and
context to learning and why this matters/connects to students' lives.	the earth.
YES NO NOT OBSERVED	YES NO NOT OBSERVED

SOCIAL STUDIES

Students in the social studies classroom learn content by regularly applying the six social studies practices. As students apply the social studies practices to create and address questions, they progress through the inquiry cycle by analyzing primary and secondary sources, and synthesizing the information to construct and communicate their conceptual understanding of the content standards. They continuously increase their historical and geographic awareness while improving their ability to articulate their thinking both audibly and visibly.

Practice 1: Collect data and information from a variety of primary and secondary sources

Students **collaborate** with experts and others to gather information from a variety of primary sources (first-hand accounts or artifacts) and secondary sources (second-hand accounts). Sources include literary texts, newspapers, autobiographies, speeches, letters, personal journals, media sources, maps, timelines, charts, political cartoons, photographs, and artwork. These sources may be gathered from museums, presidential libraries, local and state archives, and other historical sites.

Practice 2: Critically examine a primary or secondary source

Students engage in **critical thinking** by examining each source to discern differences between evidence and assertion, recognize the author's purpose and point of view, recognize potential bias, and assess the strengths and limitations of arguments. Students think **creatively** to draw inferences and conclusions from the source(s).

Practice 3: Synthesize data from a variety of sources

Students **think critically** by comparing sources to synthesize the information and establish accuracy and validity. They recognize disparities among multiple accounts. They frame and **communicate** appropriate questions for further investigation.

Practice 4: Construct and communicate arguments

Students **think critically and collaborate** to construct and **communicate** arguments, citing supporting evidence to demonstrate and defend their understanding of ideas. Students **create** and **communicate** arguments to compare viewpoints, illustrate cause and effect, predict likely outcomes and devise new outcomes or solutions.

Practice 5: Develop historical awareness

Students **think critically** to recognize how and why historical accounts change over time. They perceive and **communicate** past events and issues as they might have been experienced by the people of the time - with historical empathy rather than present-mindedness. They evaluate how unique circumstances of time and place create context and contribute to action and reaction.

Practice 6: Develop geographic awareness

Students use geography to **think critically** about relationships, patterns, and diffusion across space at multiple scales (e.g., local, national, global). They analyze locations, conditions, and connections of places and events. Students consider how perceptions of regions are fluid across time and space and analyze interactions between humans and the physical environment.

(Only One or two of these may be present on a given day as students work through the inquiry cycle.)

SSP 1 Data Collection can include Collaboration with Experts or Peers			
Students are gathering information from a variety of printed materials (speeches, letters, personal accounts), graphic representations (maps, timelines, charts, political cartoons, photographs).	YES	NO	NOT OBSERVED

SSP 2 Analyzing Sources includes Critical Thinking and can include Collaboration			
Students are critically examining primary and secondary sources to discern differences between evidence and assertion while drawing inferences and conclusions.	YES	NO	NOT OBSERVED

SSP 3 Synthesizing Data includes Critical Thinking & Communication			
Students are comparing sources to recognize disparities among multiple accounts, establish accuracy and validity, and frame appropriate questions for further investigation.	YES	NO	NOT OBSERVED

SSP 4 Constructing Arguments includes Critical Thinking, Creativity, & Communication			
Students are creating arguments and citing evidence to support ideas, illustrate cause and effect, predict likely outcomes, or propose new solutions.	YES	NO	NOT OBSERVED

SSP 5 Historical Awareness includes Critical Thinking & Communication			
Students are identifying patterns of continuity and change over time and presenting past events as they might have been experienced, with historical empathy rather than present-mindedness.	YES	NO	NOT OBSERVED

SSP 6 Geographical Awareness includes Critical Thinking			
Students are analyzing relationships, patterns, diffusion, and interactions between humans and the physical environment, across local, national and global scales.	YES	NO	NOT OBSERVED

VISUAL AND PERFORMING ARTS

Tennessee Fine Arts academic standards include separate sets of standards for each of the four arts disciplines: music, visual art, dance, and theater. Each set of standards is based on the national standards for that content area. Standards are taught through four artistic processes:

Create	Perform/Present/Produce	Respond	Connect
Conceive and develop new artistic ideas and work	<u>Perform</u> : Realize artistic ideas and work through interpretation and presentation. <u>Present</u> : Interpret and share artistic work. Produce: Realize and present	Understand and evaluate how the arts convey meaning	Relate artistic ideas and work with personal meaning and external context.
	artistic ideas and work.		
Students will:	Students will:	Students will:	Students will:
 Generate and conceptualize artistic ideas and work. Organize and develop artistic ideas and work. Refine and complete artistic work. 	 Select, analyze, and interpret artistic work for presentation. Develop and refine artistic techniques and work for presentation. Convey meaning through the presentation of artistic work. 	 Perceive and analyze artistic work. Interpret intent and meaning in artistic work. Apply criteria to evaluate artistic work. 	 Synthesize and relate knowledge and personal experiences to make art. Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

CREATE · PERFORM · RESPOND · CONNECT

Each has grade level standards for elementary, subject area course standards for grades middle school, and course-level standards for grades 9-12.

These standards provide a common point of reference for district and local educators and provide direction in meeting the challenge of ensuring that all students attain the appropriate knowledge and skills as set forth in the standards.

Artistic literacy is the knowledge and understanding required to participate authentically in the arts. Fluency in the language(s) of the arts is the ability to create, perform/produce/present, respond, and connect through symbolic and metaphoric forms that are unique to the arts. It is embodied in specific philosophical foundations and lifelong goals that enable an artistically literate person to transfer arts knowledge, skills, and capacities to other subjects, settings, and contexts.

MUSIC	ELEMENTARY MUSIC (K – 4)	SECONDARY MUSIC (5 – 12)	
CREATE (Creativity and Innovation)	Students will compose, read/notate, and improvise sounds and movement, creating and demonstrating composition using songs, rhythms, poems, stories.	Students will notate rhythmic and melodic use by applying symbols of musical expression and using standard notation. Students will compose original compositions and arrangements.	YES NO NOT OBSERVED
PERFORM (Collaborate)	Students will sing melodies using accurate pitch, rhythm and dynamics in a variety of musical forms.	Students will sing or play an instrument alone or in an ensemble using correct technique, rhythm and pitch and dynamics in a variety of musical forms.	YES NO
(contact of a contact of			NOT OBSERVED
RESPOND	Students will recognize/identify/describe "same and different" in music, including tempo, dynamics,	Students will develop and use criteria for evaluating the quality and effectiveness of music performances. Students	YES NO
(Think Critically)	voices, musical forms, instruments.	will analyze and compare music using musical vocabulary.	NOT OBSERVED
CONNECT	Students will connect musical learning to math, English language arts, visual art, dance and theatre.	Students will describe the correlation between music and other academic disciplines. Students will compare	YES NO
(Communicate)	Students will identify and describe musical genres and cultures from around the world.	characteristics of art disciplines within world cultures, historical periods or styles.	NOT OBSERVED

VISUAL ART	ELEMENTARY VISUAL ART (K – 4)	SECONDARY VISUAL ART (5 – 12)	
CREATE (Creativity and Innovation)	Students will create art using a variety of techniques, including cutting, pasting, assemblage, mixing color, painting, contouring, printmaking.	Students will understand and apply the elements of art and principles of design in solving a visual art problem using a variety of techniques, including assemblage, painting, sculpting, and printmaking.	YES NO NOT OBSERVED
PERFORM (Collaborate)	Students will understand and apply media, techniques and processes through drawing, painting, printmaking, sculpting.	Students apply problem-solving skills to create solutions to a specific visual art task. Students present works with intentional organizational structures and expressive qualities.	YES NO
RESPOND (Think Critically)	Students will learn the elements of art, principals of design, understand purpose and context of art and apply those elements to critically evaluate craftsmanship of their own work and others. Students will compare artworks' subject matter, symbols, and ideas.	Students describe and reflect on the merits in a work of art and compare artworks and their meaning using a variety of criteria and techniques.	YES NO NOT OBSERVED
CONNECT (Communicate)	Students will demonstrate how culture, history and art influence the world we live in.	Students will understand how historical and contemporary works of art reflect and influence societies and cultures.	YES NO NOT OBSERVED

DANCE	SECONDARY DANCE (5 – 12)		
CREATE	Students will generate and analyze original movement phrases through improvisation, with a clear intent, purpose and structure. Students will recognize and utilize principles and structures of choreography.	YES	NO
(Creativity and Innovation)		NOT OB	SERVED
PERFORM	Students will use dance as a medium to develop self-awareness and self-confidence. Students will demonstrate technique and skill through locomotor and non-locomotor movements. Students will learn and demonstrate the	YES	NO
(Collaborate)	basic elements of dance—space, shape, time, energy.	NOT OB	SERVED
RESPOND	Students will apply critical thinking in analyzing student and professional performances. Students will analyze choreographic intent in performances.	YES	NO
(Think			SERVED
Critically)		NOTOD	SERVED
CONNECT	Students will use movement to communicate meaning and create awareness of social issues. Students will recognize the historical roots and diversity of expression in dance genres throughout the world and how it connects	YES	NO
(Communicate)	to other academic areas.	NOT OB	SERVED

THEATRE	SECONDARY THEATRE (5 – 12)		
CREATE	Students will demonstrate the elements of drama through improvisation and character development.	YES	NO
(Creativity and		NOT OBSERVED	
Innovation)			
PERFORM	Students will learn elements of performance, including character development, monologues, scenes, voice diction, auditioning.	YES	NO
(Collaborate)	Students will learn the roles of theatrical production, including acting, stage management, production, theatrical design (scenic, lighting, costume, makeup)	NOT OBSERVED	
RESPOND	Students will understand and compare genres and a variety of dramatic literature, dramatic structure, and history of drama and examine theme and motifs.	YES	NO
(Think			
Critically)		NOTOB	SERVED
CONNECT	Students will understand the contributions of various cultures in the development of theatre and the global significance of live performance, past and present.	YES	NO
(Communicate)		NOT OB	SERVED

ENGLISH LEARNERS

Metro Nashville's English Learners (ELs) are ultimately held accountable to the same goals and objectives as their native English-speaking peers. With this in mind, high-quality instruction for ELs must be accelerated and strategically scaffolded, rather than slowed-down or watered-down. Grade-level content must be made more accessible, not "easier", in order to ensure that ELs acquire the grade-level competencies they require to achieve academic success.

All teachers of ELs – whether in the context of ELD service time with an EL-certified teacher, i.e., ELA/ELD sheltered block, ELD Focus block, ELD 1, ELD 2, or Co-Teaching – are expected to implement the following high-leverage practices.

EL Practice 1: Grade-Level Work

English Learners across all proficiency levels are engaged in grade-level work, reflecting the WIDA Can-Do Philosophy.

EL Practice 2: Contextualized/Integrated Language Development

Language objectives are clearly identified; language development is consistently **contextualized & integrated**, attending to contentspecific registers (vocabulary & structures) as appropriate.

EL Practice 3: Academic Conversations

English Learners are given regular opportunities to engage in **academic conversations** that are directly tied to the instructional focus/objectives.

EL Practice 4: Complex & Compelling Text

English Learners are working within **complex & compelling text**, and given regular opportunities to deconstruct particularly "juicy" sentences, attending to register, genre, and author's craft.

EL Practice 5: Assets-Oriented

Instruction for English Learners is **assets-oriented**, with an emphasis on uncovering & activating prior knowledge, connecting new language & concepts to existing schema.

EL Practice 6: Balanced Approach

ELs are regularly engaged in instruction & tasks that develop a **balance of both receptive & productive language**.

EL Practice 7: Strategic Assessments

Formative and summative assessments are strategically calibrated to allow English Learners to demonstrate progress/mastery according to their level of language proficiency.

EL Practice 8: Culturally Responsive Practices

Instruction for English Learners is **culturally relevant and responsive**, and free of negative misconceptions, low expectations, or stereotypes.

EL Practice 1: Grade-Level Work				
Yes – there is evidence that ELs are given opportunities to master the same	□ No – ELs are given overly-simplified or watered-down texts and tasks.			
grade-level standards as Non-EL peers, with strategic/differentiated scaffolding				
to support students at varying levels of language proficiency.	□ Not Observed			
EL Practice 2: Contextualized/Integrated Language Development				
□ Yes – new language is consistently developed in the context of content, within	No – language objectives are note clear; new vocabulary & skills are			
phrases and/or sentences that are situated within grade-level readings.	often taught in isolation, word-by-word, or disconnected from grade-level			
	content.			
	Not Observed			
EL Practice 3: Academic Conversations				
Yes – there is evidence that ELs are provided with opportunities and	No – ELs are often silent, or disengaged from classroom conversations.			
models/sentence frames to elaborate/clarify, build on ideas, support ideas with	- Nat Observed			
examples, paraphrase, and synthesize – all related to grade level standards and	□ NOT Observed			
content.				
EL Practice 4: Complex & Compelling Text				
□ Yes – there is evidence that ELs are highly engaged with interesting texts that	No – ELs are mostly given simplified texts that are neither grade-level			
are well worth reading and discussing, and are allowed safe space to engage in	nor age-appropriate.			
productive struggle with particularly complex passages.	□ Not Observed			
El Practice 5: Assets-Oriented Instruction				
∇ Yes – the teacher consistently employs strategies to activate prior knowledge	\Box No – there appears to be little/po attempt to uncover or connect to ELs'			
and build on assets (language, culture, experiences), unleashing the rich	prior knowledge and/or experiences.			
potential that ELs bring to the classroom.				
	Not Observed			
EL Practice 6: Balanced of Language Modalities				
□ Yes – ELs are actively engaged in authentic/real world tasks that balance	\Box No – there appears to be a clear imbalance, favoring one or more			
regular opportunities to listen, read, speak, and write.	modes.			
	Not Observed			
EL Practice 7: Strategic Assessments				
Yes – there is evidence that assessment accommodations are made (without	\square No – ELs are provided with no accommodations (in process or product)			
sacrificing or compromising grade-level rigor) so that all ELs may demonstrate	to allow for demonstration of progress/mastery.			
grade-level standards/content mastery.	Not Observed			
EL Practice 8: Culturally Responsive Practices				
Yes – there is evidence that ELs' cultures & languages are valued and	No – There is little/no evidence that the cultures and language			
respected; texts are deliberately chosen to reflect the diversity of the student	backgrounds of ELs are acknowledged or taken into account.			
population.				
	🗆 NOT Ubserved			

Adapted from **Re-envisioning English Language Arts and English Language Development for English Language Learners**, Council of the Great City Schools [Second Edition, May 2017]