LOUISIANA DEPARTMENT OF EDUCATION

Teaching and Learning

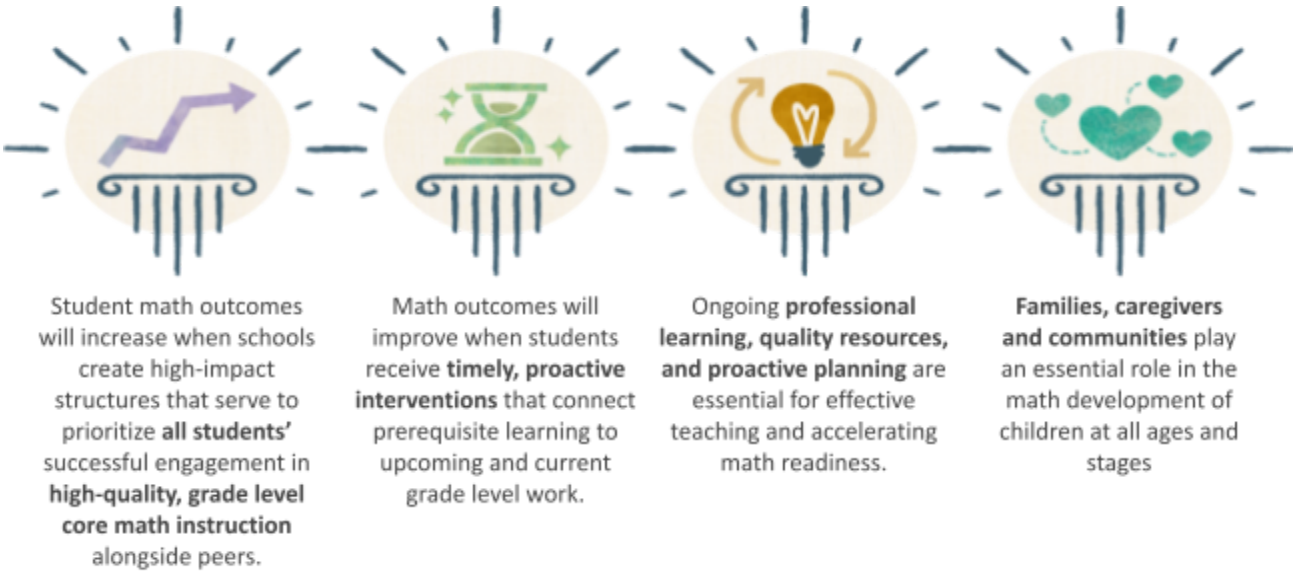
Math Leader Toolkit

Purpose

Instructional leadership is a model of system or school leadership in which leaders collaborate with teachers to provide support and guidance in establishing best practices in teaching. Part of being an instructional leader is to ensure that teachers have access to and understanding of the resources needed to impact student achievement. This toolkit enables leaders to internalize effective math practices to continue to have positive student outcomes. The Math Leader Toolkit is a comprehensive resource designed to support educators serving in an instructional leadership role by promoting excellence in math instruction through reflective practice. The Guidance included in the toolkit is aligned with the Louisiana Educator Advancement Development System (LEADS) rubric and includes a variety of resources to empower math leaders. The Math Leader Toolkit will be continually updated with information to assist in leading mathematics education.

Louisiana Math Pillars

All Louisiana students will have improved math outcomes when the four pillars of high-quality mathematics instruction designed for accelerating learning are effectively implemented at the school, system, and state levels.



The Louisiana Math Comprehensive Plan outlines all tools and resources that will impact math instruction.

Louisiana Educator Advancement Development System (LEADS)

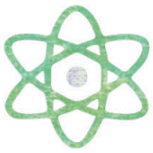
The Louisiana Educator Advancement Development System(LEADS) is named consistently with the vision of growth for Louisiana's educators and students. The Louisiana Department of Education and NIET collaborated to develop the Math Leader Toolkit to support teachers and leaders in transitioning to LEADS. The toolkit includes resources for teachers, coaches, and leaders; all of these tools are aligned with the Louisiana Educator Rubric and the Louisiana Leader Rubric. The LEADS system ensures the provision of useful, timely, and actionable feedback for improvement in the school systems. The changes to the evaluation system will allow feedback and coaching to be an integral part of the evaluation process. For more information about the educator rubrics, please see the Evaluation Learning Year Frequently Asked Questions.

Diverse Learners

The Louisiana Department of Education Special Education Playbook for School and System Leaders identifies three key instructional best practices as the central drivers of all support provided to students who struggle.

FOCUS ON CORE INSTRUCTION

EXTRA TIME TO LEARN



CONTENT STRONG TEACHERS

Contents of the Toolkit

- Student Work Analysis Process: A tool to encourage teachers' reflection on their instructional practices and the impact of those practices on student learning.
- Student Work Analysis Coaching Guidance: A resource to support coaches in supporting teachers through the Student Work Analysis Tool. It uses the same approach as the student work analysis tool but with specific support for master teachers and instructional coaches for coaching and supporting teachers in math.
- Content-Specific Feedback Framework for Leaders(coming soon): A resource to provide guidance to support school leaders through the student work analysis process implemented by teachers, coaches, and other instructional staff.
- Acceleration Program Appraisal: A tool for school leaders to determine whether their academic program is aligned to high-quality instructional materials with built-in acceleration tools and time for math intervention during the school day.

Student Work Analysis Process

Approach

Step 1: Defining expectations for students' performance

1. Identify the standards central to the assignment and articulate expectations for student performance.
2. Determine when full mastery of standard(s) is expected.
3. Define the lesson's intent and how it connects to student learning expectations.
4. Draft or analyze an exemplary response based on the assignment and the standards' expectations.
5. Select and finalize the expectations using the exemplar as a guide.

Step 2: Identify characteristics in student work using learning expectations

1. Analyze each sample for evidence that each student is progressing or meeting expectations of the learning outcomes.
2. Note characteristics in student work using the learning expectations for student performance.
3. Chart the results of your analysis.

Step 3: Reflect on the impact instructional practices have on student learning

1. Determine how this student work analysis process impacts instructional best practices.
2. Reflect on the next steps for shifting instructional practices to meet the needs of each learner.

Step 4: Implementing math-specific instructional supports to enhance learning

1. Analyze an upcoming lesson to determine where misconceptions from the student's work may hinder student learning.
2. Identify the highest priority opportunities for growth in student learning aligned to the targeted standards in the context of your instructional materials.
3. Intentionally plan to provide learning opportunities for students in the context of your instructional materials.

Guiding Questions

Step 1: Defining expectations for students' performance	
Guiding Questions	**Notes**
Which standards are central to the assignment? What do the standards call for? • *When is mastery of the standard(s) expected?*	
What is the intent of the lesson? • *How does this intent support progression or meeting expectations of standard(s)?*	
What do students need to demonstrate on the assignment to demonstrate progress or meet expectations of the standards?	

Step 2: Identify characteristics in student work using learning expectations	
Guiding Questions	**Notes**
On which expectations did students perform well?	
What characteristics indicate where students are not yet meeting the learning expectations?	
What patterns in student performance are evident?	
What does the student work reveal about each student's grasp of the grade-level standards?	

Step 3: Reflect on the impact instructional practices have on student learning	
Guiding Questions	**Notes**
What did I do or say at each point of the lesson to increase student outcomes? • *What did I do to ensure all students are successful?*	
Did the student work give me more information on what mastery or non-mastery looks like for this standard? • *What instructional practices, if elevated, will ensure students make progress or meet expectations in the future?*	
Was my instruction effective based on the student work analysis? How do I know?	

Step 4: Implementing math-specific instructional supports to enhance learning	
Guiding Questions	**Notes**
How do the learning outcomes for the upcoming lesson align with the characteristics covered in the previous lesson?	
Where within the lesson can intentional instructional supports be embedded?	
What instructional support strategies can be put in place to ensure students have the opportunity to meet expectations of the learning outcome?	

Student Work Analysis Coaching Guidance

This resource is tailored for coaches and instructional support staff working with teachers, providing support and guidance specifically aimed at enhancing the effectiveness of instructional practices through student work analysis.

Steps of the Student Work Analysis Process	Considerations and Coaching Questions
	**Approach: Step 1: Defining expectations for students' performance** 1. Identify the standards central to the assignment and articulate expectations for student performance. 2. Determine when full mastery of standard(s) is expected. 3. Define the lesson's intent and how it connects to student learning expectations. 4. Draft or analyze an exemplary response based on the assignment and the standards' expectations. 5. Select and finalize the expectations using the exemplar as a guide. **Coaching Considerations:** • Collaborate with teachers to determine when mastery of the identified standard(s) is expected and what mastery of the standard looks like. • Help teachers define the lesson's intent and how it aligns with student learning expectations related to the identified standards. • Support teachers in selecting and finalizing expectations for the assignment, using the exemplary response as a guide. **Coaching Questions:** • How did you determine the performance expectations of this lesson? • How will you obtain evidence that most students have met or exceeded performance expectations? What will this evidence look like? • How can this content or standard be presented to all students in a way that maintains depth of instruction, but also provides varying degrees of support? ○ What will those varying degrees of support look like? • What connections can you draw between the lesson objectives, the standards, and the expectations for student performance? • Based on the exemplar, what specific expectations will you use to define success for this assignment?

Steps of the Student Work Analysis Process	Considerations and Coaching Questions
	**Approach Step 2: Identify characteristics in student work using learning expectations** 1. Analyze each sample for evidence that each student is progressing or meeting expectations of the learning outcomes. 2. Note characteristics in student work using the learning expectations for student performance. 3. Chart the results of your analysis. **Coaching Considerations:** • Ensure teachers have a clear understanding of the learning outcomes or objectives that students are expected to achieve. • Encourage teachers to look for evidence of understanding, application of concepts, and demonstration of skills as outlined in the success criteria. • Facilitate opportunities for teachers to collaborate with colleagues during teacher collaboration meetings to deepen their understanding of student progress and share best practices for supporting student learning. **Coaching Questions:** • As you analyze each sample, what evidence do you observe indicating whether students are progressing towards or meeting the learning outcomes? • How do these characteristics align with the learning expectations you've defined for the assignment? • What insights do you anticipate gaining from charting the results of your analysis, and how will these insights inform your instructional decisions moving forward?

Steps of the Student Work Analysis Process	Considerations and Coaching Questions
	Coaching Questions: • As you analyze each sample, what evidence do you observe indicating whether students are progressing towards or meeting the learning outcomes? • How do these characteristics align with the learning expectations you've defined for the assignment? • What insights do you anticipate gaining from charting the results of your analysis, and how will these insights inform your instructional decisions moving forward?
	**Approach Step 3: Reflect on the impact instructional practices have on student learning** 1. Determine how this student work analysis process impacts instructional best practices. 2. Reflect on the next steps for shifting instructional practices to meet the needs of each learner. **Coaching Considerations:** • Guide educators in examining how the process of analyzing student work influences instructional practices and why it is critical to shift instructional practices based on student needs • Assist educators in identifying instructional practices that have positively impacted student learning based on the analysis of student work. • Help educators pinpoint areas where instructional practices may need refinement or adjustment. **Coaching Questions:** • In what ways do you foresee adjusting or refining your instructional approaches based on the findings of this analysis process?

Steps of the Student Work Analysis Process	Considerations and Coaching Questions
	• What instructional practices will you enhance to ensure that your instructional practices are responsive to the individual needs and progress of each student?
	**Approach Step 4: Implementing math-specific instructional supports to enhance learning** 1. Analyze an upcoming lesson to determine where misconceptions from the students' work may hinder student learning. 2. Identify the highest priority opportunities for growth in student learning aligned to the targeted standards in the context of your instructional materials. 3. Intentionally plan to provide learning opportunities for students in the context of your instructional materials. **Coaching Considerations:** • Guide educators to use reflection from last lesson within this step of the student work analysis process • Guide educators in analyzing upcoming math lessons to identify potential misconceptions that students may encounter. • Assist educators in prioritizing opportunities for student growth aligned with targeted math standards within the context of high quality instructional materials. • Guide educators in integrating formative assessment practices into their instructional plans. **Coaching Questions:** • How can you proactively address these misconceptions to prevent them from hindering student learning during the upcoming lesson while keeping the expectations for the upcoming lesson in mind? • How do these opportunities for growth align with the content and objectives of the upcoming lesson? • How will you intentionally plan and incorporate learning opportunities within the context of your instructional materials to address the identified areas for growth?

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LDOE Math Leader Toolkit

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Content-Specific Feedback Framework

Purpose:

This resource is designed for coaches and other instructional support staff to facilitate the delivery of content-focused feedback to educators as they engage students in rigorous learning experiences. Drawing upon best practices rooted in the Louisiana Educator's Rubric, it offers guidance tailored to elevate math instruction, propelling student learning. This resource equips staff with guidance on providing feedback to educators, including concrete "look-fors" aligned with high-quality feedback practices. These practices encompass focus, coherence, and rigor, essential for meeting the depth demanded by the Louisiana Student Standards for Math. This feedback framework aims to provide comprehensive support for teachers by addressing key areas of instruction and offering actionable recommendations for improvement. By utilizing evidence-based practices and aligning feedback with curricular goals, educators can effectively enhance the quality of teaching and learning in the classroom. This tool provides a framework for content-specific feedback; however, it's not an exhaustive list, and observers should tailor it to their contexts to consider the depth of feedback that should be provided to educators.

Considerations:

- Root in the major work of the grade level
    - Determine where the teacher is in the scope of that major work
- Refer to the teacher data to determine the depth of feedback provided to teachers
- Connect to learning in teacher collaboration cycle
- Leverage the student work analysis process
- Consider school improvement goals

Step 1: Provide explicit evidence from the observed lesson that connects to the area of strength that most impacted student mastery of the objective. Guiding Question: What was done well in this lesson that directly impacted student work? Guiding Question: How can I highlight the instructional strength in the lesson to build teacher capacity?	
Assess student progress toward meeting the expectations of the standards/lesson objectives. (Identify strengths in student work)	Determine how evidence of student work aligns with strengths within instructional practices.
Evidence of meeting expectations of standards/lesson objectives	Evidence of instructional practices that contributed to student success
Which instructional practice, rooted in the high-quality instructional materials, contributed to student success (as outlined above)? (Provide content-specific feedback aligning instructional best practices and evidence of students meeting expectations of standards/ lesson objectives)	

Step 2: Use teacher and student data gathered from evidence to determine what instructional best practices will best increase the quality of teaching and learning. Guiding Question: What is the teacher(s)' most recent reinforcement and refinement area? Guiding Question: Is there data from this group of students to identify a specific need/opportunity for growth?	
Assess student progress toward meeting the expectations of the standards/lesson objectives. (Identify opportunities for growth in student work)	Determine how evidence of student work aligns with the opportunity for growth within instructional practices.
Evidence of opportunity for growth toward meeting expectations of standards/lesson objectives	Evidence of opportunity for growth within instructional practices that align with student need
What instructional practices, rooted in high-quality instructional materials, will ensure students make progress or meet expectations in the future? (provide content-specific feedback aligning instructional best practices and evidence of students meeting expectations of standards/ lesson objectives)	

Step 3: Develop a concrete suggestion that explicitly connects instructional best practices to high-quality instructional materials. Guiding Question: How deep is this teacher's content knowledge? • What do you know about this teacher's professional background? • What does the evidence of instructional practices in the lesson show you? Guiding Question: Reflecting on the lesson, what are the slight improvements to this teacher's instructional practices to improve student outcomes?	
Where in the curriculum did the teacher have the opportunity to accelerate learning forward using the instructional best practice identified during step 2?	What questions might you ask this teacher during the conference to help them see the connections between the activities and materials within the HQIM and instructional best practices and how their integration impacts student learning?
Develop a concrete suggestion for embedding the instructional practice within the high-quality instructional materials for an upcoming lesson.	

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Teaching and Learning

Acceleration Program Appraisal

	Materials	Yes	No
Section One Considerations	High-quality instructional materials are in place for both core and support time.		
	If yes, move to implementation. If no, move to the next question.		
Section Two Considerations	Do supplemental materials identify remediation content without connecting to core instruction topics?		
	Do supplemental materials focus students solely on content that is more than 1 year (or grade level) below the students' current grade level?		
	Do supplemental programs place students on a computer-based learning path that is not adjusted or only adjusted 2-3 times per year?		
	Does the supplemental program give the student the answer after answering? For example, if a student completes a problem, the problem is incorrect, a text box pops up with a text-based explanation, and the answer is provided.		
	If yes on any of the section 2 questions, remove the supplemental materials and choose materials that • directly connect to current core grade-level work; • focus students on preparation for core; and • allow for flexible and frequent adjustment based on student needs according to timely data.		
	Implementation	**Yes**	**No**
Considerations	Do all students have frequent and consistent (at least 3 times per week) extra tutoring time built into the school day?		
	Is there a clear connection to core instruction for students?		
	Is instruction during extra time provided by a qualified educator?		
	If you answered no to any of the above questions in this section, consider restructuring your tutoring time to include at least 3 times per week provided by a qualified educator aligned to core instruction.		