

# Math Content Leader Assessment Series

## Demonstrating Math Content Knowledge



Educators with high expectations for student outcomes will connect deep mathematical content and an understanding of the Louisiana Student Standards for Mathematics (LSSM) to the planning and implementation of a Tier 1 math curriculum. Within a Tier 1 curriculum, the educator will apply their knowledge of the key shifts in the mathematics standards: focus, coherence, and rigor. Doing so will allow them to engage in purposeful, collaborative planning while implementing the curriculum within the classroom and with fidelity.

## Facilitating Mathematically Productive Discussions



As the standards for mathematics have shifted from primarily routine procedures and algorithms to also include building conceptual understanding, students must be able to reason, justify, and model their thinking in mathematics. Achieving this requires that educators also shift their instruction so that students are doing more of the cognitive lift. Productive discourse is an instructional tool that facilitates this by allowing educators to use students' developing thinking to help others master the content. Productive discourse also helps educators collect important information about what students are thinking and learning that can be used to adjust instruction. A key component of productive discussion is educator facilitation.

The 5 Practices for Orchestrating Mathematically Productive Discussions provides a framework that can help educators improve the quality of mathematics discussion in their classrooms.

## Coherence and Alignment of the LSSM



Mathematics is not a list of disconnected topics, tricks, or mnemonics; it is a coherent body of knowledge made up of interconnected concepts. The educator connects deep mathematical content knowledge and understanding of the Louisiana Student Standards for Mathematics (LSSM) to the planning and implementation of a Tier 1 math curriculum. When educators understand the coherence of the LSSM, they are able to make connections explicit in their lesson design and delivery. They also gain competency in scaffolding knowledge for students within and across lessons and grade levels, resulting in increased student achievement in math.

## Collaborating with School Leaders to Achieve the School Goals



In order to achieve school goals effectively and efficiently, members of the school community must collaborate to attain shared vision, role clarity, and strong processes for carrying out those goals. Content Leaders support school leaders and fellow educators in achieving school goals by helping them deepen and apply their knowledge of content and content pedagogy while using their instructional materials effectively. Content Leaders should partner with school leadership to:

- Develop a shared understanding of the vision and goals for the school and how the Content Leader will contribute to achieving them.
- Outline the process and structures that the Content Leader will use to (re-)deliver the content modules.
- Set up recurring touchpoints to discuss progress towards goals and problem solve around issues.

## Facilitating Adult Group Learning



Facilitating adult group learning requires a strong grasp of content, purposeful planning, and methods to assess the impact of that learning. The plan and facilitation of an adult group learning session incorporates effective learning models, structures, and processes. When adult learners are engaged in experiential learning that links directly to their professional learning needs, instructional practices improve and have a direct impact on student achievement.

- **ANALYZE** a lesson from a Tier 1 math curriculum to demonstrate your knowledge of the Key Shifts in Mathematics.

- **DEVELOP** a set of instructional decisions aligned to the planning guide to ensure focus, coherence and rigor.

- **IMPLEMENT** the lesson you planned and collect student work samples.

- **EVALUATE** the implementation of your lesson by responding to reflection questions.

- **ANALYZE** a selected lesson from the Tier 1 math curriculum to prepare to lead a mathematically productive discussion in your class.

- **DEVELOP** or use the provided monitoring sheet to monitor, select, sequence and connect students' solution pathways.

- **IMPLEMENT** the lesson and capture a video that demonstrates your discussion facilitation.

- **EVALUATE** the implementation of your lesson by responding to reflection questions.

- **ANALYZE** a sequence of connected lessons (minimum of 3 lessons).

- **DEVELOP** an intervention plan to support student mastery through a series of lessons.

- **IMPLEMENT** the series of lessons and collect student work samples.

- **EVALUATE** the implementation of your lesson by responding to reflection questions.

- **ANALYZE** the ways in which you, in your role as a Content Leader, can contribute to specific school goals related to implementing curriculum.

- **DEVELOP** a plan for how you will (re-)deliver the content modules.

- **IMPLEMENT** your plan and collect artifacts of implementation.

- **EVALUATE** the implementation of your plan by responding to reflection questions.

- **ANALYZE** an upcoming opportunity to (re-)deliver a content module.

- **DEVELOP** annotations for a Facilitation Guide to ensure successful facilitation of the content module.

- **IMPLEMENT** your content module session and capture a video that demonstrates your facilitation.

- **EVALUATE** the success of your facilitation by responding to reflection questions and collecting participant feedback.