Kentucky Department of EDUCATION

Math Lesson Internalization Protocol

Lesson internalization is a core process of intellectual preparation that guides core teachers, special education teachers (co-teachers and resource teachers) and support specialists (e.g., interventionists, English learner) as they prepare to teach a lesson within a high-quality instructional resource (HQIR). **Prior to lesson internalization, educators should engage in unit internalization to understand the arc of learning for the unit and how a lesson supports the learning outcomes.** During lesson internalization, the emphasis should be on rich instructional conversation, and the accompanying note-catcher may be used to capture highpoints for later reference.

Allow core teachers and support specialists 45-60 minutes, collaborating in grade-level teams, to work through the protocol. **There are more steps and questions than can be fully discussed during that time; therefore, consider prioritizing those most aligned to district/school goals and professional learning focuses for the current stage of implementation (launch, early or ongoing).** For example, educators could choose to focus only on the "Understand" section of the protocol during early implementation to build initial understanding of the resource.

While this protocol can be used with any high-quality instructional resource (HQIR), check with your vendor for a specific protocol to use with your district-or-school- selected instructional resource.

UNDERSTAND: Internalize Lesson Notes and Complete Formative Task(s)

1. **Identify the Standards: "Which of the unit standard(s) or part(s) of standards are addressed in this lesson?"**
   - Consider the Standards for Mathematical Content within this lesson. Is the target of each standard conceptual understanding, procedural skill/fluency and/or application?
   - Consider which Standards for Mathematical Practice (SMPs) students will use to engage in mathematical thinking throughout this lesson.
2. **Complete the Formative Task(s): "What math skills/concepts from the standards are assessed in today's lesson?"**
   - Complete the formative task(s), applying the knowledge, understandings, skills and strategies students would be expected to use. (*This can be completed prior to the PLC meeting.*)
   - Compare answers and solution strategies to the teacher's guide. How do the questions require application of the knowledge, understandings and skills called for by the lesson's standard(s) and learning goal(s)?
3. **Read and annotate lesson, including any teacher's notes: "What are students learning?"**
   - Review the lesson learning goal(s) and compare it to the formative task(s) to understand the new learning students will engage in this lesson.
     - How does this lesson build on previous lessons and support upcoming lessons, including alignment to the big ideas of the unit/module and its essential questions?
     - How will you explain to students why this learning is important?
     - What success criteria will provide clear evidence that lesson goals have been achieved?

- Review new vocabulary. What academic language will students need to acquire?

4. **Read and annotate lesson, including any teacher's notes: "How are students supported in their learning?"**
   - How will you ensure students understand the lesson goal(s), success criteria and what success "looks like" (exemplars, student work samples, rubrics, etc.)?
   - What mathematical representations can be utilized to deepen understanding of the concepts and procedures and as tools for problem solving?
   - How will students use the mathematical practices identified for this lesson to support their understanding?
   - What key instructional practices and routines (posing purposeful questions, providing structured collaboration, facilitating mathematical discourse, eliciting and using evidence of student thinking, etc.) engage students and help them move toward mastery?
   - What key instructional practice, routine or other lesson element may need the support of rehearsal?
   - Where will students share and receive feedback on evidence of their thinking?

TAKE STOCK: Identify Learning Gaps and Student Needs

5. **Understand your students, their strengths, and anticipate the challenges they might face.**
   - Analyze student data from pre-assessments/tasks leading up to this lesson. Based on your analysis, what **HQIR-embedded supports** for differentiation are required during the lesson? For students at lower readiness levels, what relevant data and insights are offered by aligned support from Tier 2? (*For support, consider the Aligning Tier 2 Intervention with Tier 1 Instruction resource.*)
   - Are there any specific misconceptions students may have about the lesson content? What guidance and supports are provided by the HQIR to address the misconceptions?

TAKE ACTION: Make Adjustments to Lesson

6. **Prioritize and adjust the lesson: "How can I tailor this lesson to the specific needs of my students?"** (*When considering an adjustment, the **Adjusting High-Quality Instructional Resources Tool** offers guidance to support doing so effectively.)*
   - Review or create structures to support English learners and students with learning and thinking differences, including how they can demonstrate what they know in multiple ways. Decide which HQIR-embedded supports to use universally and which meet the needs of individual students.
   - Identify local instructional priorities that further support/enhance learning and the student experience (elements of project-based learning, inquiry-based learning, portrait of a learner competencies, cooperative learning, cognitive strategies, standards-based grading, etc.).
   - If needed, make adjustments to tasks within the lesson to ensure students can connect mathematics with relevant/authentic situations in their lives.
   - If needed, make adjustments to tasks within the lesson to address learning gaps and misconceptions that are shared by most learners.
   - If needed, adjust timing and/or cut out a portion(s) of the lesson confirmed as non-essential to students attaining the standard(s) or lesson goal(s). Vendors can support confirmation.

7. **Reflect on the planned lesson: "Do the lesson adjustments and added supports align with the standard(s) and the learning goals?"**
    - Revisit the lesson learning goal(s) and formative tasks to ensure they align with any lesson adjustments or added supports.
    - Determine what is most important to look for as evidence of student learning and refine lesson success criteria as needed.