

The Math Observation Protocol¹ articulates the vision for skillful mathematics teaching and learning, grounded in research about how students best learn to become mathematical thinkers. Purposes include: 1) preparing lessons; 2) reflecting on instructional practices; 3) developing professional learning on standards-aligned practice; and 4) providing feedback on classroom practice.

Culture of Learning: Are all students engaged in the work of the lesson from start to finish?

- Students complete instructional tasks, volunteer responses, and/or ask appropriate questions.
- Students follow behavioral expectations and directions.
- Students execute transitions, routines, and procedures in an orderly and efficient manner.
- Students are engaged in the work of the lesson from start to finish; there is a sense of urgency about how time is used.
- Students and their teacher demonstrate a joy for learning through positive relationships and strong classroom culture.

Not Yet	Somewhat	Mostly	Yes
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High-Quality Mathematical Content: Does the enacted lesson reflect the Focus, Coherence, and Rigor required by college and career ready standards for Mathematics?

- **Focus:** The enacted lesson focuses on the grade-level cluster(s), grade-level content standard(s), or part(s) thereof. *
- **Coherence:** The enacted lesson appropriately connects mathematical concepts within and/or across grades as appropriate, reflecting the coherence in the standards. *
- **Rigor:** The enacted lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed. *

*Each individual indicator should be rated as either Not Yet or Yes.

Not Yet	Yes
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High-Quality Instructional Practices: Does the teacher employ instructional practices that allow all students to learn the content of the lesson?

- The teacher makes the mathematics of the lesson explicit by using explanations, representations, and/or examples beyond just showing students how to get the answer.
- The teacher provides opportunities for all students to work with and practice grade/course -level problems and tasks with appropriate numbers and number types.
- The teacher strengthens all students' understanding of the content by strategically sharing students' representations and/or solution methods.
- The teacher deliberately poses questions and/or tasks that make students' current understanding (including misconceptions) of the math visible and adapts the lesson to support student understanding.
- The teacher facilitates the summary of the mathematics with references to student work and discussion in order to reinforce the focus of the lesson.
- The mathematical thinking and solutions presented by the teacher are accurate.

Not Yet	Somewhat	Mostly	Yes
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Student Ownership: Do students exhibit key mathematical practices while engaging with the content of the lesson?

- Students do the majority of the work of the lesson.
- Students use reasoning and problem-solving skills to persevere through difficulty. When teachers provide support, students still own the complex thinking.
- Students use appropriate tools strategically when solving problems.
- Students explain and justify their thinking beyond just stating answers.
- Students talk about and ask questions about each other's thinking in order to clarify or improve their own mathematical understanding.
- Students use precise mathematical language in their explanations and discussions.

Not Yet	Somewhat	Mostly	Yes
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¹ This tool draws heavily from Student Achievement Partners' [Instructional Practice Guide Coaching Tools \(IPGs\)](#) and the Culture of Learning competency of the [TNTP Core Teaching Rubric](#).