Observational Tool

Directions: As observers watch the lesson, use the observational tool below to identify areas of strength and growth for each indicator listed. The look-fors are color-coded by math narrative: **making math relevant**, **affirming the value of mistakes**, and **encouraging help-seeking**.

Instruction **Process of engaging with mathematics through purposeful actions taken by teachers and students, emphasizing interaction, exploration, and meaning making during learning.**			
Indicator	**Teacher Look Fors**	**Student Look Fors**	**Notes**
Lesson Goals & Relevance	Articulates lesson goals as they pertain to both mathematics and real life (PAS #1)	Explains lesson goals in terms of both mathematics and real-life (SMP #1)	
Context & Modeling	Uses authentic contexts and messy real data that support mathematical modeling (PAS #2, 8)	Creates and uses models to represent and solve real-life quantitative relationships (e.g., finance, authentic problems)	
Mistakes & Feedback	Invites students to identify/correct mistakes (PAS #4, 5, 8) Celebrates mistakes as learning opportunities (PAS #1, 3)	Shares thinking confidently, engages with feedback, and views mistakes as part of learning math	
Student Thinking	Generates math learning opportunities from student-suggested contexts and thinking (PAS #7, 8)	Demonstrates curiosity and ownership in exploring peer- or self-suggested math ideas	

Dialogue & Collaboration	Invites/supports student dialogue (PAS #4, 5, 8) Invites students to answer classmates' questions (PAS #4, 8) Group students strategically for collaboration (PAS #4, 7, 8)	Engages in peer-to-peer dialogue; responds to classmates' questions; collaborates to build understanding
Relevance & Application	Gives real-life and career-oriented examples during instruction. (PAS #1,2) Facilitates discussions where students apply reasoning to community or social justice issues.(PAS #1,2) Invites guest speakers who explain how they use math in their careers. (PAS #1,2) References college and career concepts when connecting math topics. (PAS #1,4) Demonstrates how math applies to everyday adult tasks (e.g., budgeting, scheduling). (PAS #2,3)	Asks genuine questions about why a topic is relevant to real life. (SMP #1,4) Shares personal examples that relate to the math concept. (SMP #4) Creates math problems based on real-life situations. (SMP #2,4) Uses real-world examples in explanations to peers or teacher. (SMP #3,4)

Assessment

Process of determining the impact of instruction through iterative opportunities for drafting, revising, and reflecting on thinking, where mistakes are recognized as learning opportunities. It incorporates formative, summative, peer, and self-assessment to provide ongoing feedback and guide continuous learning.

Indicator	Teacher Look Fors	Student Look Fors	Notes
Mistakes as Learning	Facilitates whole-class or small-group error analysis. (PAS #2,4,7,8) Thinks aloud to show how they learn from a mistake. (PAS #7) States explicitly that mistakes are normal and valuable for learning. (PAS #7)	Revises written work or explanations after feedback or challenges. (SMP #1,7,8) Explains errors and new understanding to peers or teacher. (SMP# 1,3,6) Volunteers to share their thinking, even when uncertain. (SMP #3) Raises questions to clarify confusion with teacher or peers. (SMP #1,3) Says aloud, “I don’t understand” or similar statements comfortably. (SMP #1)	
Feedback, Revision, Reflection	Provides formative assessments that include opportunities for retakes or corrections. (PAS #7,8) Points out specific strengths in student work during feedback. (PAS #8)	Describes what they know, what is confusing, and what they want to learn. Revises work after feedback is given. Talks about the changes they made and why. (SMP #1,3)	

	Asks students to revise their work based on feedback given. (PAS #1,7,8) Schedules or structures time for multiple draft–revise–reflect cycles. (PAS #7,8) Reflects on how relevant assessments were to students and how well they measured real-life problem solving. (PAS:2,3,4,8)	Reflects on what was learned and why it matters. (SMP#:1,3)
Support & Resources	Says aloud that needing help is normal during learning. (PAS #7) Points students to available resources (school supports, after-school help, online tools). (PAS #7) Shares helpful resources with families (PAS #1,7)	Uses provided resources (e.g., online tool, study guide) while working. Approaches teacher or peers to seek help.