REFLECTION TOOL for ENGAGEMENT

Mathematical Practice Standard # 1: Make sense of problems and persevere in solving them

WORD EXAMPLES	ENGAGEMENT STRATEGY USED BY THE EDUCATOR	I USED THIS STRATEGY TODAY	OTHER COMMENTS
"We are going to start with a problem of the month..."	Distinguish this lesson from other daily tasks.		
"What do you observe?"	Encourage observations for different approaches to tasks.		
"It's a new type of math, a new way of doing them."	Acknowledge that this is new and different and setting expectations.		
"Talk as a team about what your strategies are."	Model how a team begins project work.		
"When I work with a team, it's a really good idea to discuss what strategies we're going to use"	Connect educators' experiences with what the students can hope to experience.		
"It's interesting, I heard you say... "I'm trying to..."	Redirect in a positive/strength based phrases.		
"Have you discussed your strategy as a team?"	Ask purposeful questions that implicitly lead students to work as a team.		
"I like how you communicated that to your group."	Reinforce positive teamwork skill expressions.		
"Does anyone have a backup plan?" "Do we want to create a backup plan?" "What do you want to do if your first plan doesn't work?"	Model consideration to accept failure of first plan, and acknowledge need to persevere.		
Other			

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PLAN & PREPARATION EXAMPLES	ENGAGEMENT STRATEGY USED BY THE EDUCATOR	I USED THIS STRATEGY TODAY	OTHER COMMENTS
Problem of the month is perfect vehicle for introducing perseverance.	Choose a difficult task purposefully to model confidence.		
"I went into it knowing that my students would be struggling with it."	Plan and prepare to be WITH students in their struggle.		
Changes in the environment (sitting in circle, conversational).	Set up learning environment to support group work, change of mindset.		
"My students not used to tasks that require extensive amounts of teamwork."	Plan support through large group and small teamwork to build confidence and perseverance.		
"My students are not used to tasks that are a little open and loose."	Pre-correct to observe and guide when students were 'lost'.		
Connects "levels" of difficulty to spiciness "mild," "medium," and "hot."	Connect new concepts (of "levels of struggle") to real-world previous student knowledge.		
Naming the fact that 'This feels different.'	Make very explicit acceptance of struggle.		
Other			

Mathematical Practice Standard # 3: Construct viable arguments and critique the reasoning of others

WORD EXAMPLES	ENGAGEMENT STRATEGY USED BY THE EDUCATOR	I USED THIS STRATEGY TODAY	OTHER COMMENTS
Provide "wait time" to process posed critique question.	Model listening and contemplation time before answering.		
"Something good in the problem…"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"My favorite wrong answer that shows good math…."	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
Calls the "nos" interesting	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"The mistake I was looking for…"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"What I love about that [incorrect] problem is…"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"What is going well?"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"What do I like about this problem?"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"What am I happy to see?"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"How far are you from getting it right?"	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		
"The mistake didn't ruin the whole thing."	Strength-based wording: focused attention on acknowledging what students know and moving them forward.		

Mathematical Practice Standard # 3: Construct viable arguments and critique the reasoning of others

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Plan and prepare for a daily warm up routine activity.	Assist students with consistency and setting tone for classroom discussion (respectful).		
Provide formative assessment of student learning through note cards.	Use a quick scanning of individual (and classroom) understanding of math concept presented.		
Other			

Mathematical Practice Standard # 4: Model with mathematics

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"..create a fantasy dream team that includes the greatest homerun hitter."	Connect to immediate and real world student interests- empowerment of decision making.		
"Students wrestle with which player to put in the 3rd and 4th place..."	Encourage perseverance in challenging work.		
"Write the rationale."	Model math with language as well as numbers.		
"What observations did you based your conclusion?"	Use real-life data points to create viable arguments.		
"Explain your math reasoning."	Offer opportunities for feedback and response versus lecturing.		
Other			

Mathematical Practice Standard # 4: Model with mathematics

PLAN & PREPARATION EXAMPLES	ENGAGEMENT STRATEGY USED BY THE EDUCATOR	I USED THIS STRATEGY TODAY	OTHER COMMENTS
Point of lesson was to give students experience in comparing and analyzing distributions using graphical displays.	Use comfortable data to build their skills at 'analyzing...'		
"Sports are full of usable data, readily available to access."	Plan skill capacity building by using familiar data.		
"Names that we use are icons, people that most individuals have already heard of."	Plan skill capacity building by using interesting and real life data.		
"I find the pairing and the sharing a really great strategy…when they can share with another student, it means that they've made the learning their own, not just memorization."	Plan confidence building through small group work.		
Statistical software assists in seeing data graphed quickly versus inputting numbers.	Offer experience working with software that may be part of later work settings.		
"They [students] get to the point that illness and injury data impacts decision making…who they would choose for their own team?"	Guide students towards autonomy and decision-making skills.		
Go out and get some real data that the students are interested in.	Provide choices based on student interest.		
"This lesson is adaptable to as sophisticated as you'd like or as basic as you'd like."	Pre-correct for student capacity at levels ahead or behind through differentiation.		
Other			