

# What is ambitious, equitable math instruction?

## October 2021 Math Fellow Convening

Math stations/rotations	It is okay to make mistakes	Content accessible to all students in gen ed classroom	Math that is supported with intentional visuals/real life connections	Math that is done throughout the day (when applicable) not just during the math block	Focus on student strengths	Families know about student progress	All ideas are recognized	Assessments (and practice) that values quality (depth) over quantity (e.g. "math vitamin "CGI	All voices share or are heard
Math games	Welcoming, mistakes, revisions and seeing them as opportunities to learn	Curriculum accessible for all	Making thinking visible with models	Real-world problems. Authentic reasons for use of math	Asset based	Families are involved and informed	Students feel recognized and represented	Assessment that informs instruction	Students collaborate, teach, and practice
Rigor		Meeting students where they are at	Visual models	Build procedural fluency from conceptual understanding		Curriculum is culturally appropriate	Valuing all ideas and contributions	Focus on learning (instead of "readiness")	Student share ideas with each other
A belief that everyone can do math		Tailor made to the individual	Different ways to show knowledge	Pose purposeful questions		Students create the context for problems	Experience honoring	Focus on growth	Students work together and are NOT groups by ability
Students know the standard		Math problems have many entrance points	Multiple strategies	Use and connect mathematical representations		relatable	Opportunities to show learning in many ways	Assessments that promote learning	Intentional grouping/pairing
Small-group time		Lesson with multiple access points		Implement tacks that promote reasoning and problem solving		Culturally relative math probs/activities	Mutual respect and rapport	Meaningful feedback	Flexible grouping that is actually flexible
Practice and review		Opportunities for extension		Establish mathematics goals to focus learning		Anti-racist	Everyone has a voice that is valued	Portfolio-based assessment reviewed by community	Fluid groupings
High expectations for effort and participation		Many entry points				Background knowledge, culture & experience plays a role	Create multiple pathways to success	Take time to analyze student work	Student discussions about each other's thinking that are not teacher heavy
Practice and review		Open ended				Context that is relevant to shared experiences			Students supporting each other's growth in a

									judgement -free way-appreciating each other's strengths
		Open-ended questions- everyone can learn from challenges				Building on prior knowledge seeing what the kids already know and making use of funds of knowledge			Students discourse Teaching and practicing conversation skills
		Multiple door into the room				Making math relevant to students lives			Fostering students' confidence
		Scaffolding (manipulative, partners)				In context			Safe Space to share & discuss
		Scaffold different lessons				Providing context (not just calculation)			Instruction includes a safe environment for risk-taking and exploration
		Apply progression of standards							To be human is to do math If you say a student is incapable you are saying they are something other than human (also if you say it about you)
									Theirs to claim, not to give
									Respect flowing in all directions
									Authority to challenge

									Giving students ownership over their ideas
									Student discussions
									Students drive learning
									Inquiry-based, students attempt a problem in their own way and then share
									Student-led activities
									Diverse strategies that allow for rich discourse