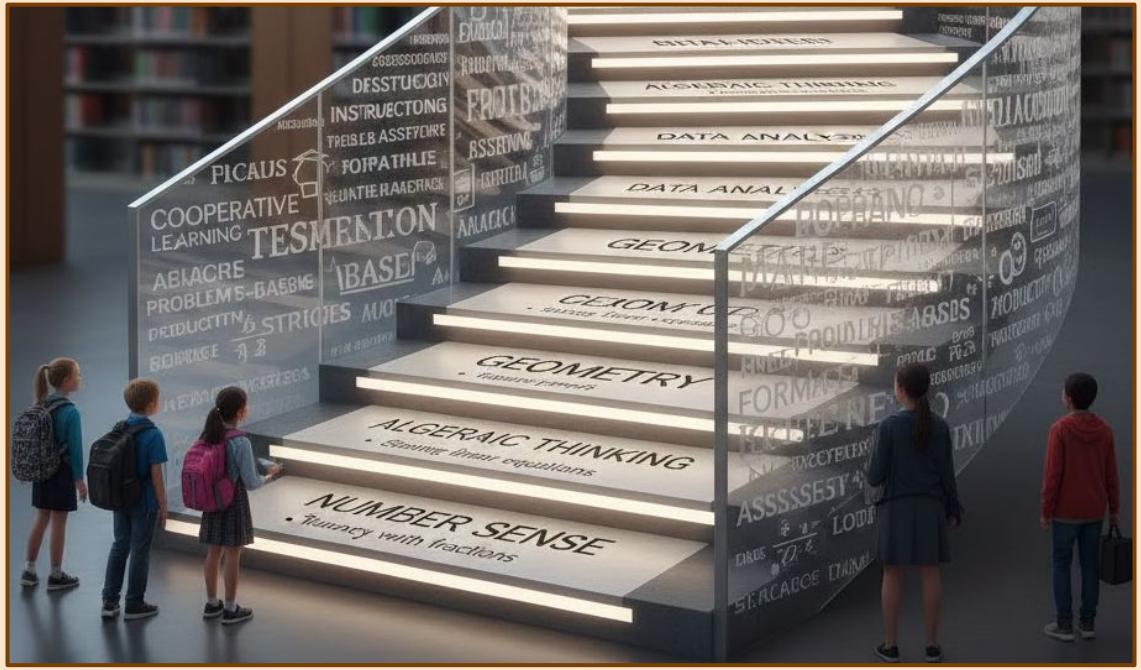
SCSD K-12 Mathematics

Mastery Through High-Leverage Instructional Practices



Ms. Angelica Babino

January 13, 2026

OUTLINE OF OUR FRAMEWORK FOR STUDENT ACHIEVEMENT

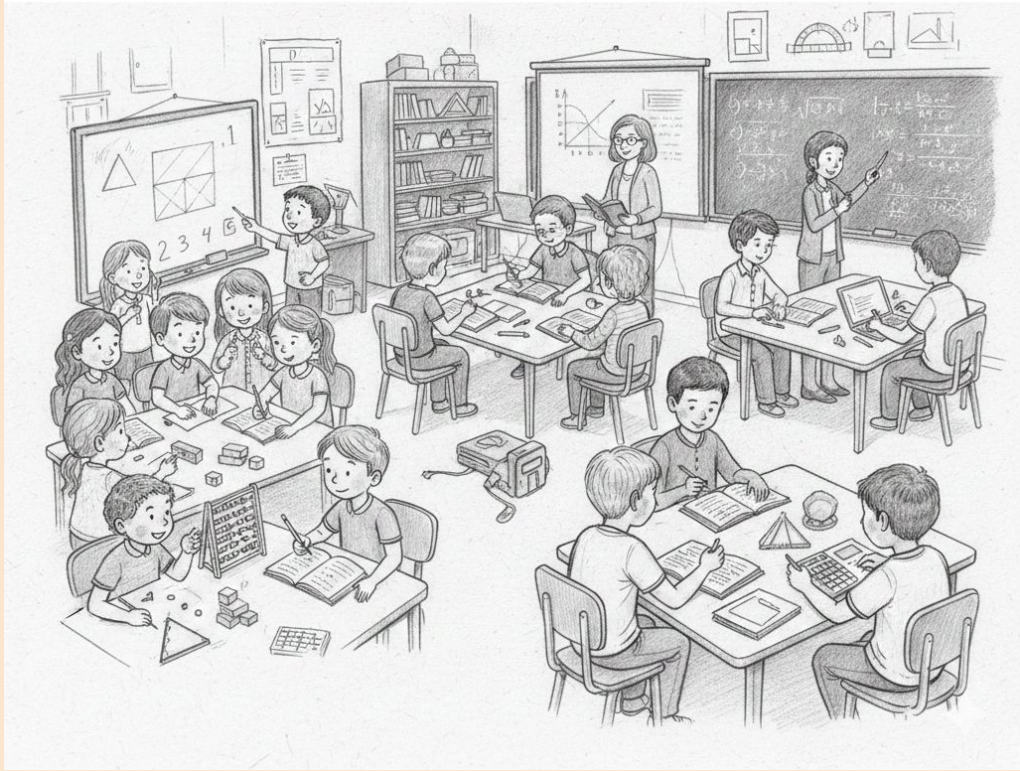
How are high-leverage instructional practices building K-12 student coherence and conceptual mastery?

1. **Anchoring instruction in the progression of learning standards**
2. **Connecting various instructional practices to this progression**

Enhancing Conceptual Understanding through

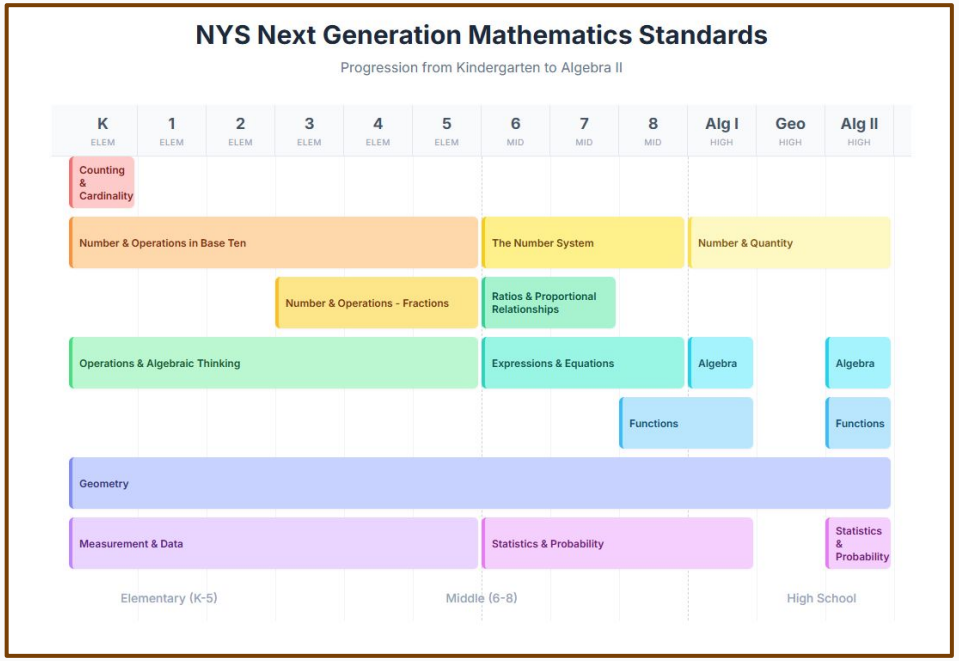
1. **Improved formative assessment**
2. **Enhanced professional growth opportunities**

Our students are mastering mathematics, learning from teachers that are dedicated to providing their students the highest quality instruction.



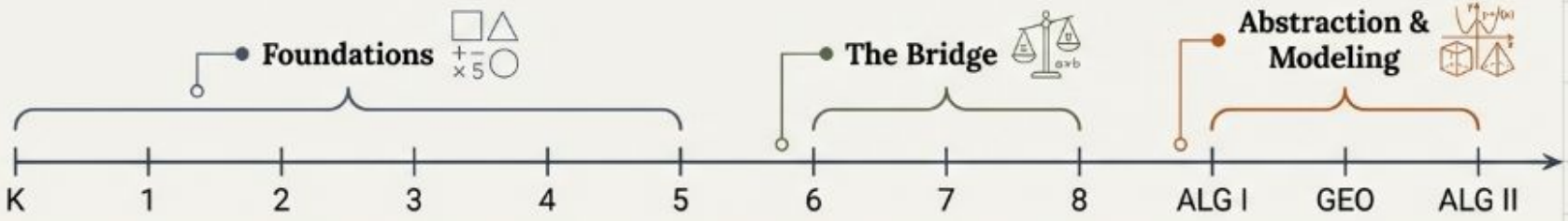
How are high-leverage instructional practices building K-12 student coherence and conceptual mastery?

1. **Anchoring instruction in the progression of The New York State Next Generation Mathematics Standards**



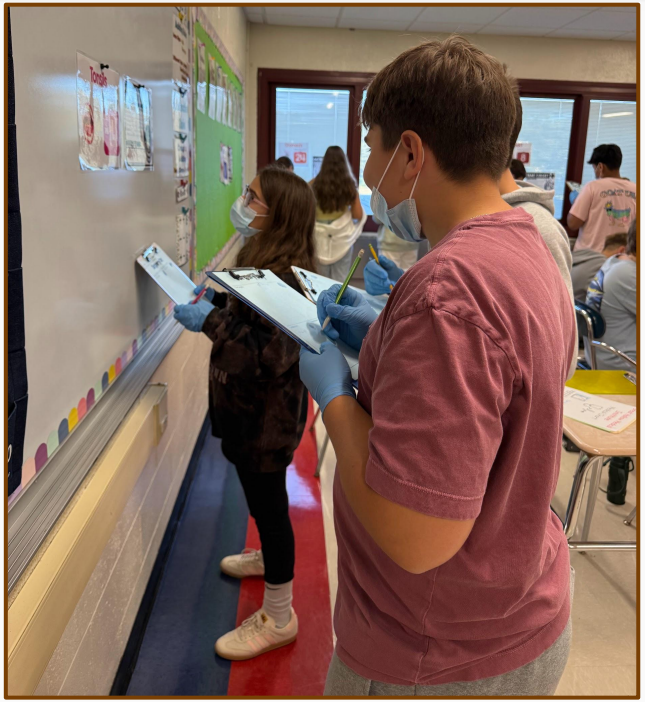
Our Mathematics Curriculum: A Deliberate Journey from the Concrete to the Abstract

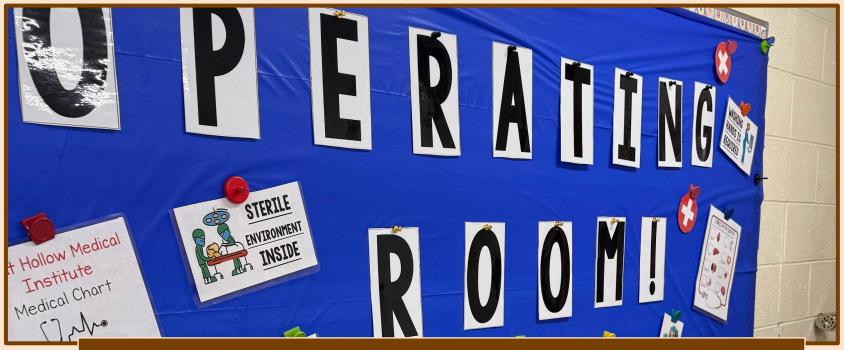
1. **Foundations** (K-5): Building a tangible, intuitive understanding of numbers and operations by connecting concepts to the physical world.
2. **The Bridge** (6-8): Transitioning from concrete arithmetic to the symbolic language of algebra, developing critical abstract thinking.
3. **Abstraction & Modeling** (HS): Achieving fluency in the language of mathematics, using functions to model complex situations and solve problems.



How are high-leverage instructional practices building K-12 student coherence and conceptual mastery?

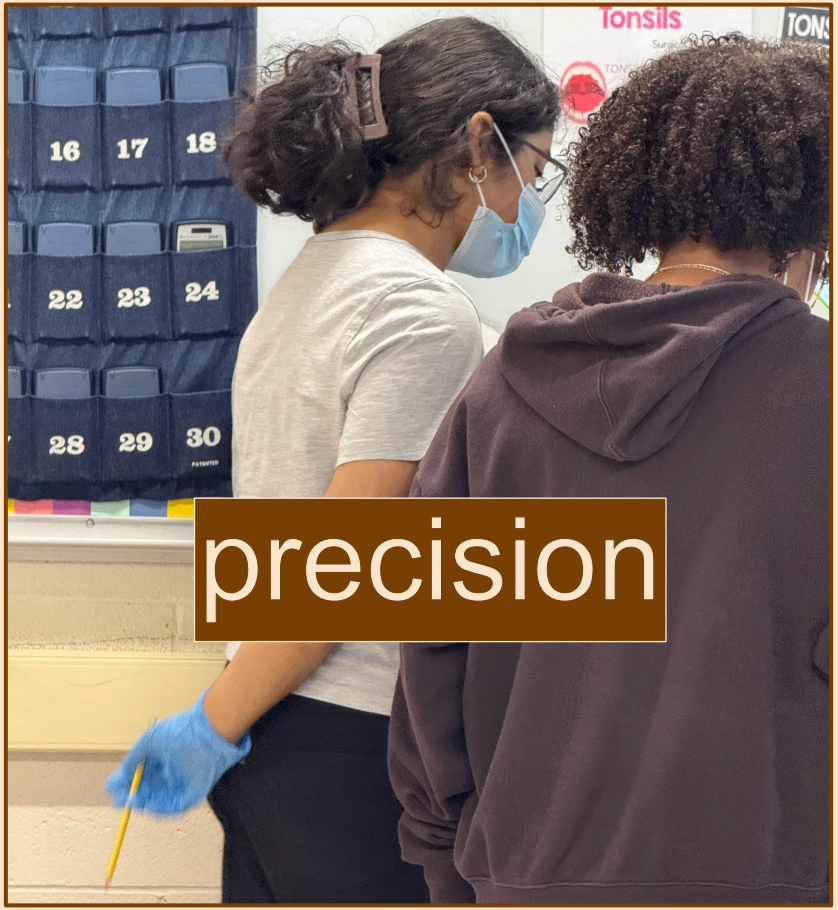
1. Anchoring instruction in the progression of The New York State Next Generation Mathematics Standards
2. Connecting effective instructional practices to this progression





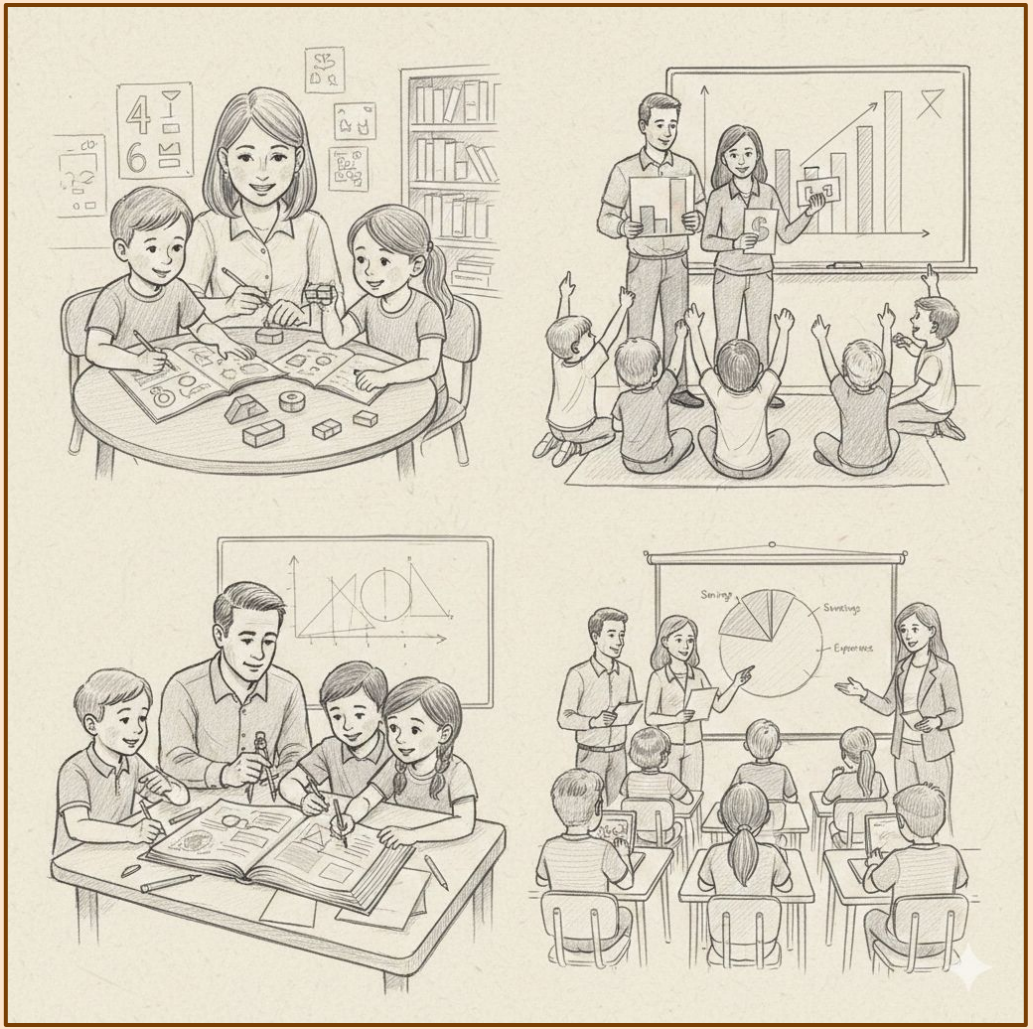
communication

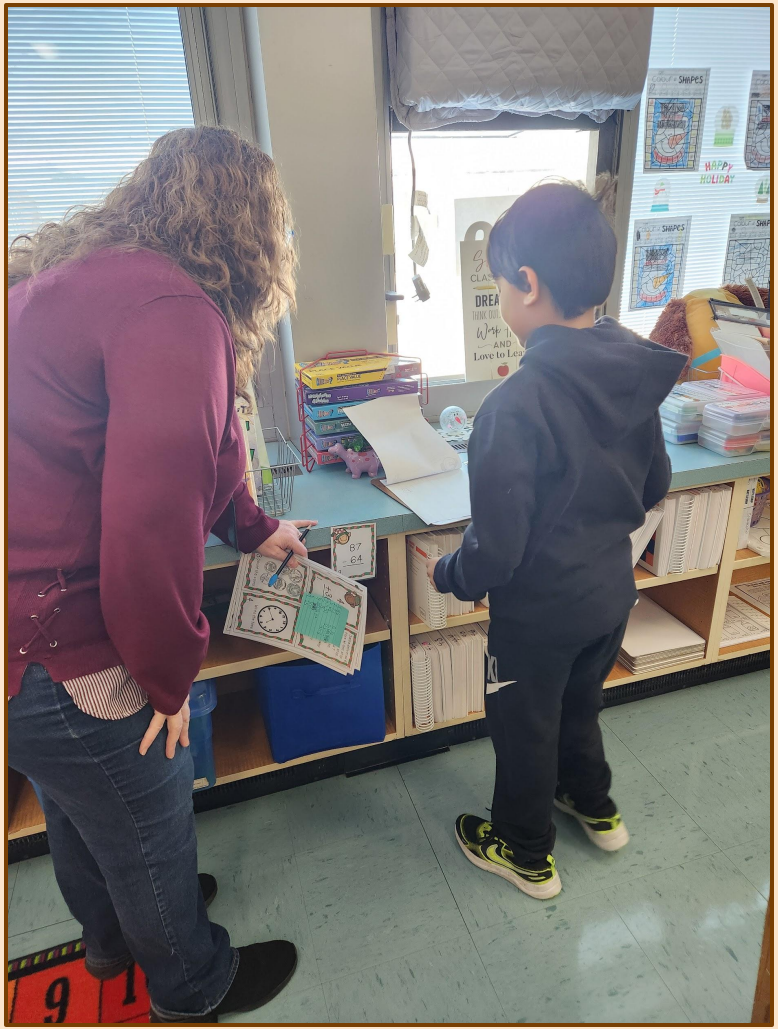
modeling



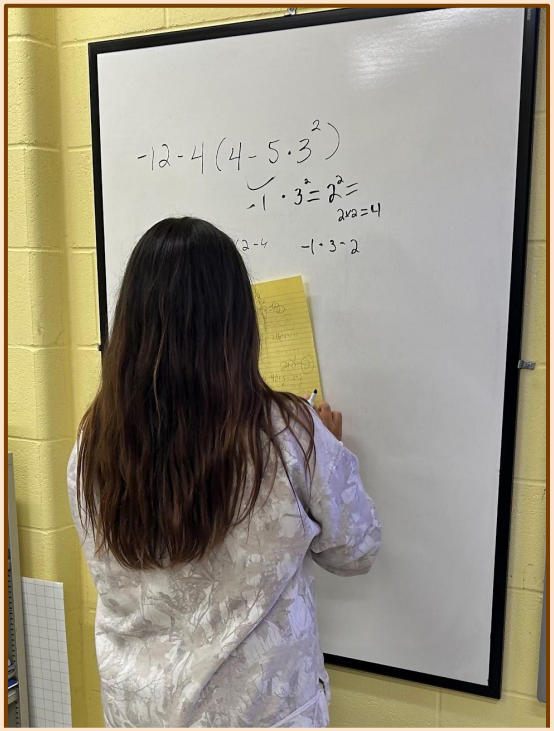
precision

K-12 Mathematics Academic Intervention Services

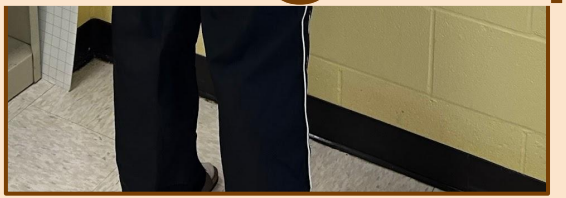


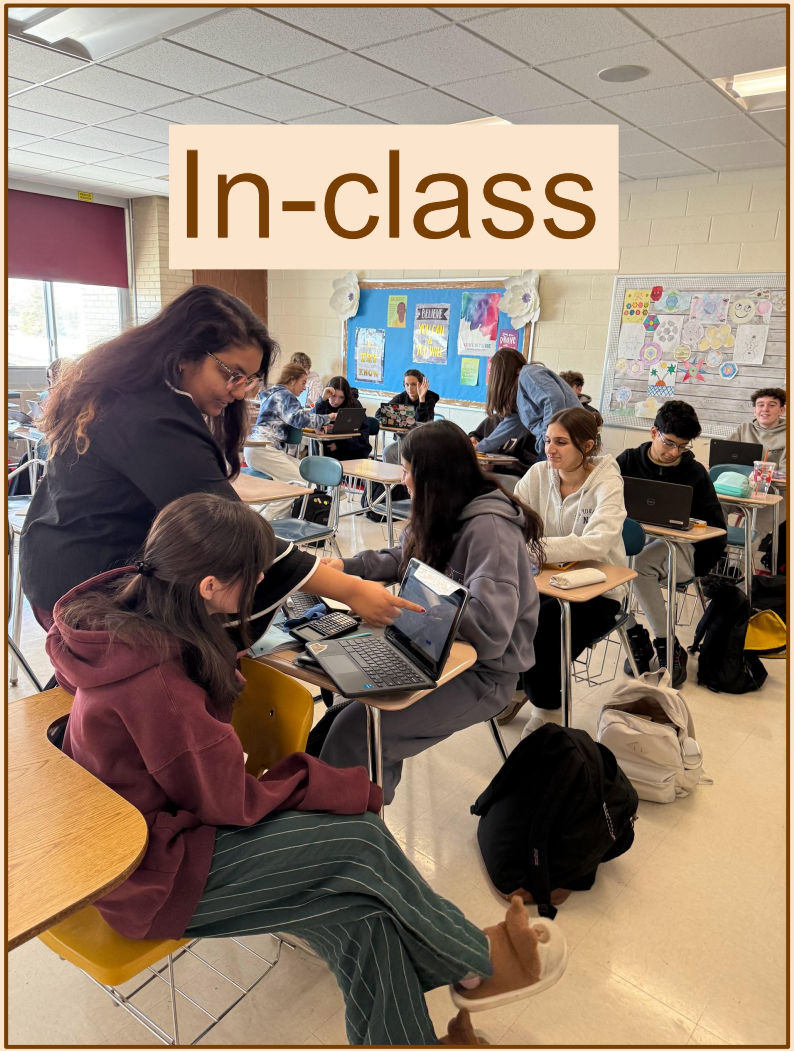

SHAPES
HAPPY HOLIDAY
SHAPES


hello class



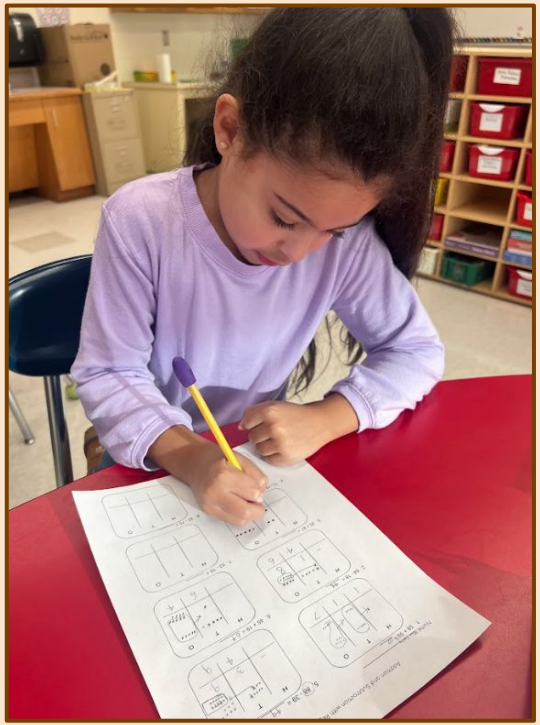
small-group

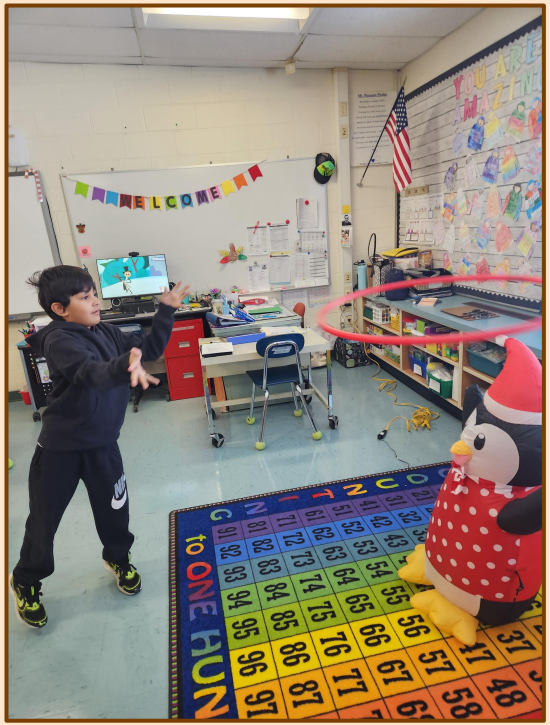


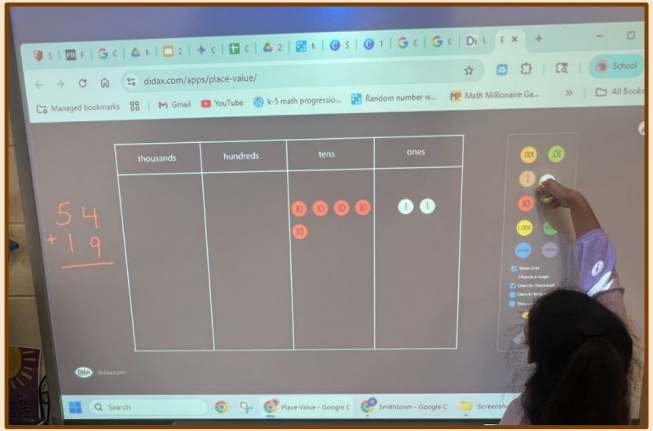


In-class

Academic Intervention Services are provided for students in a pull-out model







Skills practice
Addition and Subtraction
Multiplication

Fun Activities
Holiday Hop!

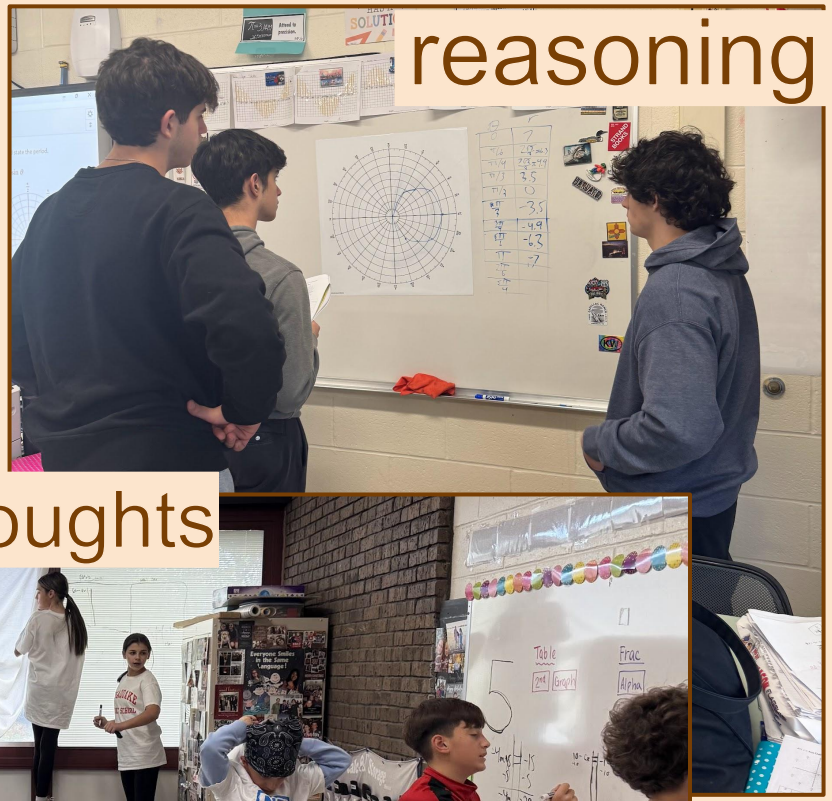
Our high school math learning centers are also open for students to walk in.

High School East	Room 313
High School West	Room G307
Monday - Thursday	6:40 am - 2:45 pm
Friday	6:40 am - 2:03 pm

Enhancing Conceptual Understanding through…

1. Improved formative assessment

critiquing

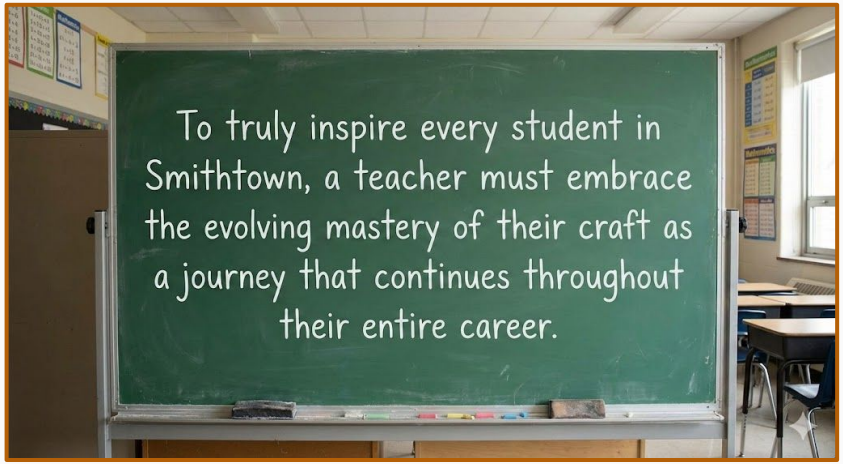


reasoning

sharing thoughts

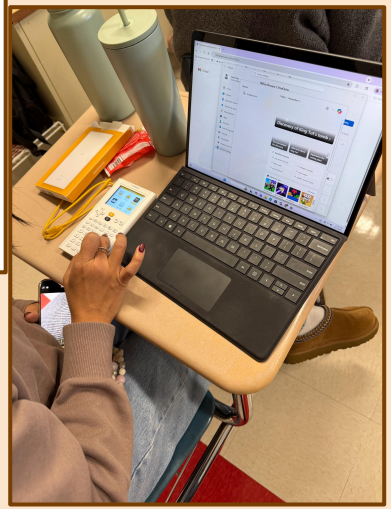
Enhancing Conceptual Understanding through…

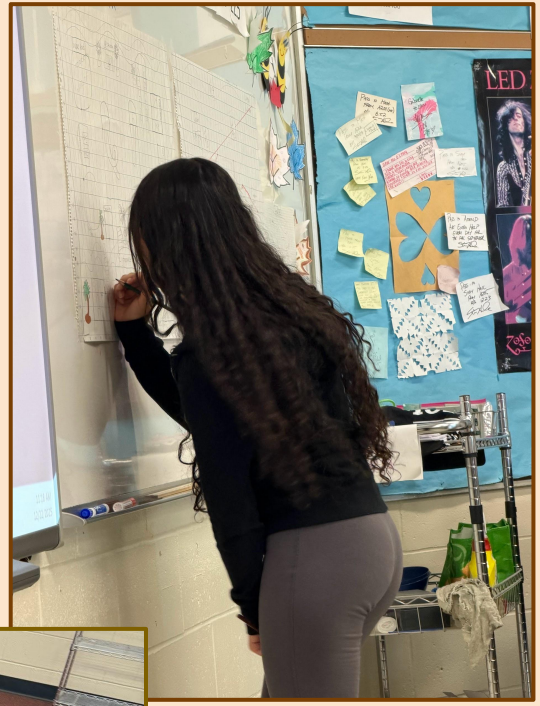
1. **Improved formative assessment**
2. **Enhanced professional growth opportunities**

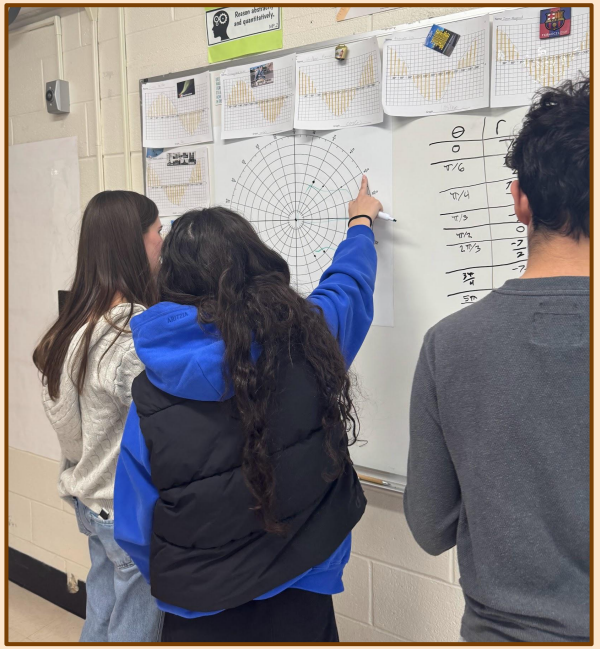


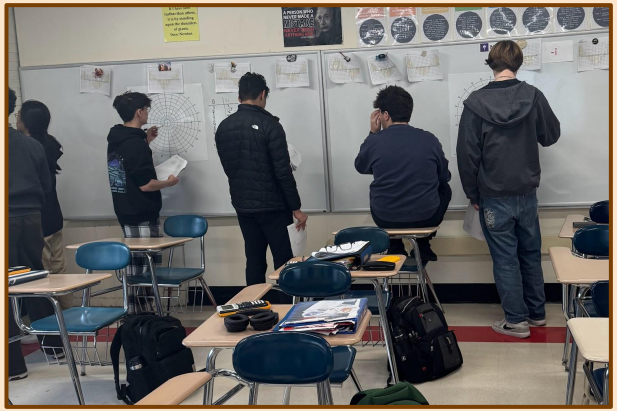
Welcome to the math portion of SCD
Math Ed Camp
Angelica Babino, K-12 Director of Mathematics

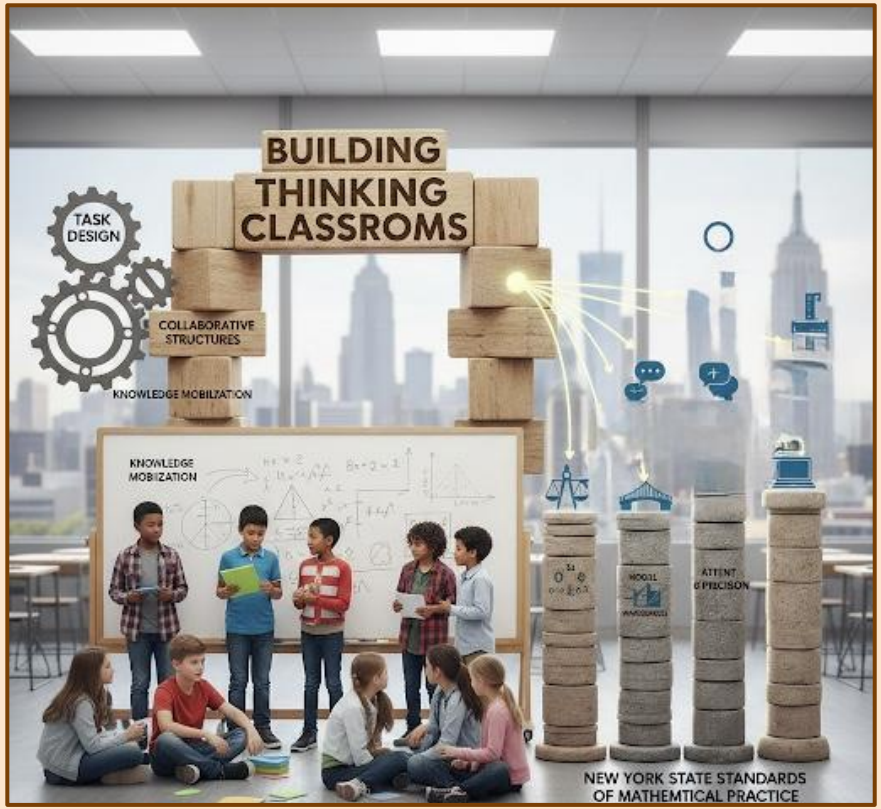
Time	HSE Little Theatre	Rm 312	Rm 315	Rm 317	Rm 319
8:00-9:00 AM	Welcome Our very own Tim Needles K-12				
9:00-10:00 AM	Amplify Desmos Jeremy from Amplify 6-12	Creating Science Assessments K-5 STEM specialists			FastBridge Data Retreat Randy from Renaissance K-5 AIS
10:00-11:00 AM	AI Tim Needles 10-12			NumWorks Calculator Kylie from NumWorks 6-9	
11:00-12:15 PM	AI Tim Needles K-9			NumWorks Calculator Kylie from NumWorks 10-12	
12:15-1:00 PM	LUNCH				
1:00-2:00 PM	Albert David from Albert 6-8	Building Thinking Classrooms Our very own Marianne 6-12	Topics in Secondary Math Pros & Cons of Retakes Algebra 2 Resource Planning Explore AP Cybersecurity Delta Math user discussion Led by: Kate, Regina, Michele, and Lenora		ST Math Data Dive Kara from ST Math K-5 AIS and STEM Specialists
2:00-3:00 PM	Albert David from Albert 9-12	School AI to create resources Our very own Marianne K-12	Topics in Secondary Math Pros & Cons of Retakes Algebra 2 Resource Planning Explore AP Cybersecurity Delta Math user discussion Led by: Kate, Regina, Michele, and Lenora		





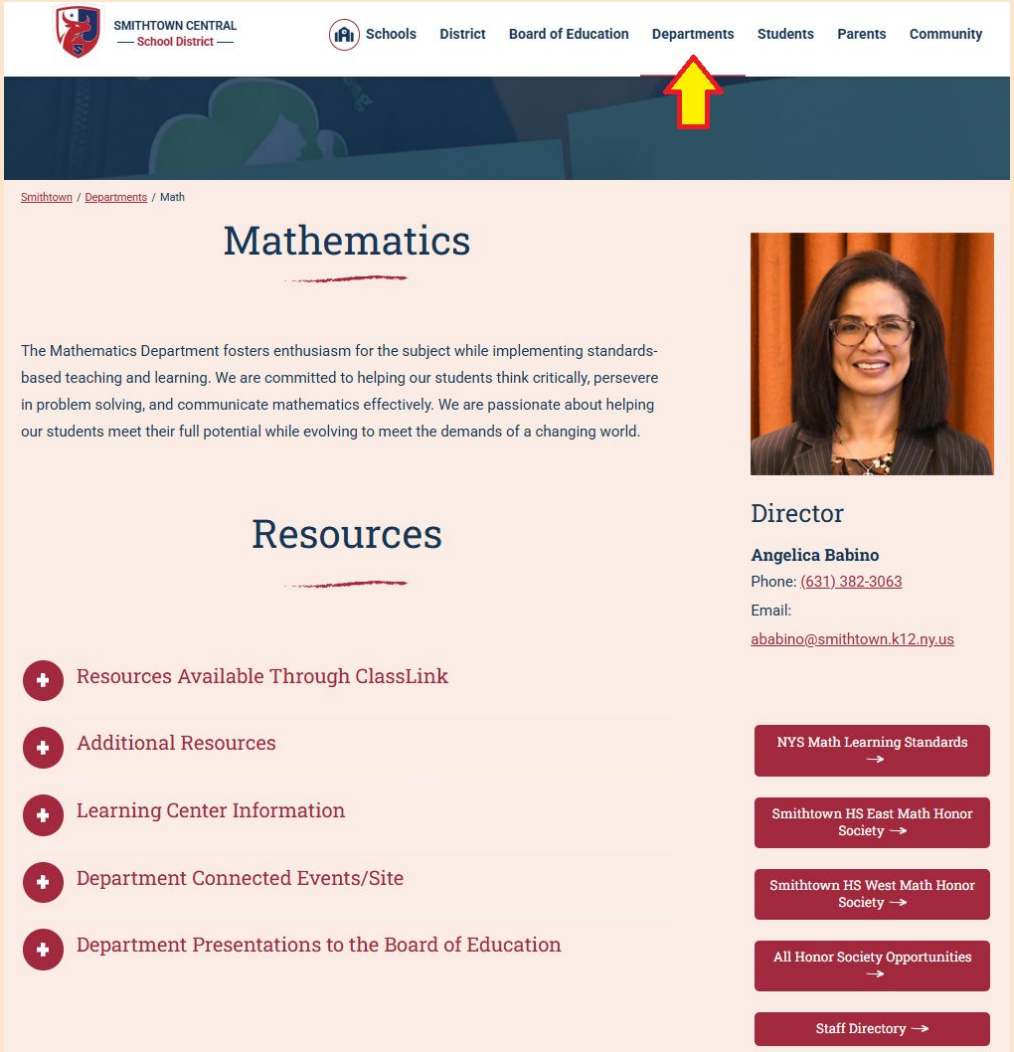


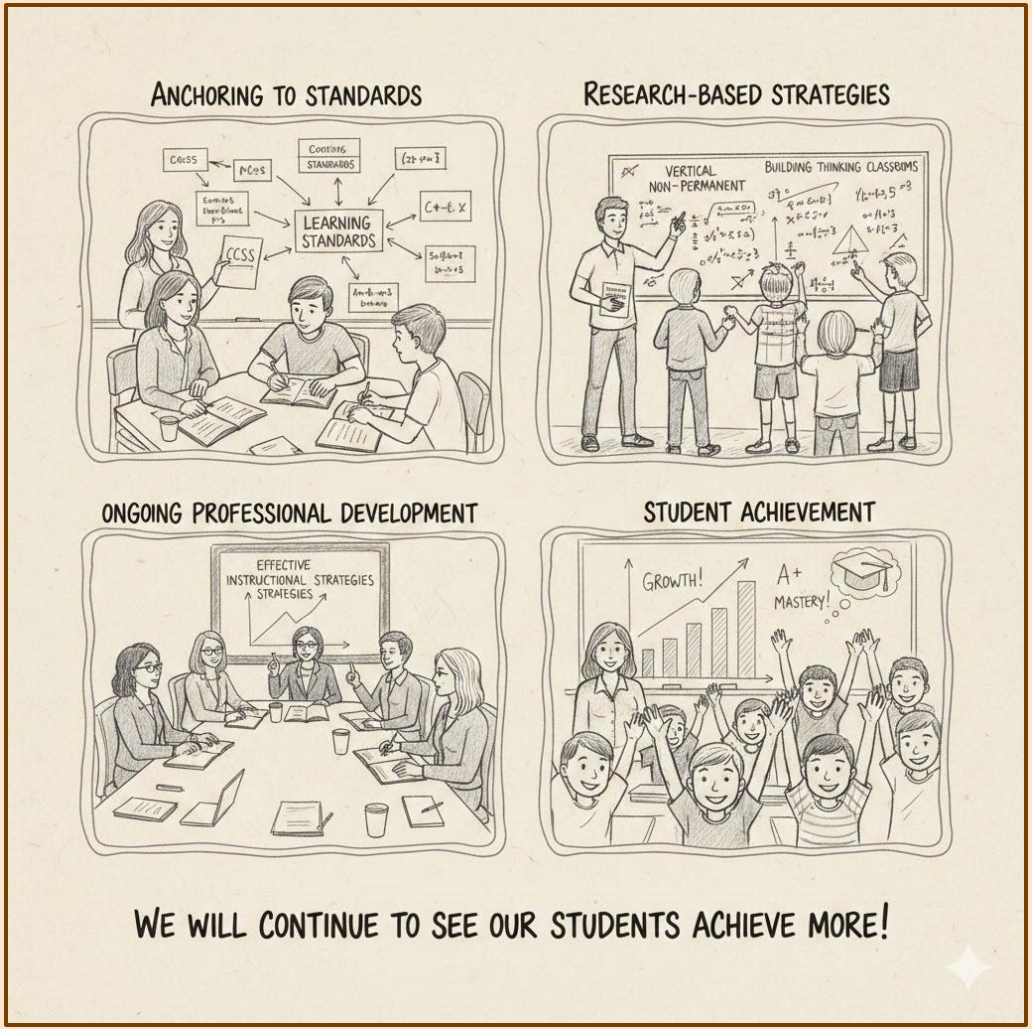




- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

Resources for Students/Families on the Mathematics Department Webpage





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