

Non-Negotiables for Mathematics 9-12

The list below outlines district expectations regarding the district's Mathematics programs in grades 9-12

- District-approved curriculum/ unit guides and adopted programs (e.g. Illustrative Mathematics, Carnegie Learning, Agile Mind, Elementary Statistics,..etc.) are to be used as the primary instructional supports; making use of all essential components
- Every core lesson should reflect the Ideal Math Block breakdown specific to their respective grade span
- Physical space should promote the teaching and learning of mathematics. Expected items are:
 - Progressive Word/Vocabulary Walls
 - Current student work exemplars
 - Anchor Charts that convey big ideas
 - 8 Standards of Mathematical Practices
 - 5 Practices for Orchestrating Productive Math Discourse
 - Grouping Chart and Rotation Schedule
 - Objectives/Learning Targets posted on the board
 - Daily itineraries (*optional*)
- Rotation Stations should reflect the needs of the students based on various types of data with activities that help to address learning gaps.
 - 9-12:
 - Rotation Stations must occur 45 minutes a week for a 5 credit course and 90 minutes a week for a 10 credit course
 - Stations must include a technology and teacher led small group instruction (Student exploration station is optional.)
 - Aleks must be used at least 30 -45 minutes per week in the technology station
- Physical resources / Manipulatives that are grade ban specific.
 - Use of document camera throughout a lesson
 - Use of manipulatives must be evident when introducing / reinforcing a concept.
 - Manipulatives should support the major work of the grade. For example,
 - Patty paper for work with transformation
 - Algebra tiles for completing square of quadratic functions
 - Graph paper to model and define key features of functions
- Lessons must include opportunities for students to be exposed to problem solving. This includes:
 - Anchor Task

- Exit Ticket
- Guided / Independent Practice
- Use of the 5 practices for Orchestrating Productive Math Discourse (anticipate, monitor, select, sequence, connect) or TQE (Task, Questions, & Evidences) must be evident.
Rich math discourse must be:
 - Prompted by teacher questioning
 - Allowing for students to reason / show their thinking
 - Provide opportunities for students to engage in discourse with peers
- Student Portfolios
 - Include ECRs with Corresponding Scoring Rubrics
 - Graded Curriculum Performance Tasks
- All students must maintain a Math Notebook
- Teacher- Led Small Group Instruction:
 - Area that is identified for small group must be evident and include: dry erase boards, chart paper, manipulatives, and in proximity to anchor charts