



Saginaw Public School District K-12: High Quality Mathematics Instruction

Vision of high quality mathematical instruction:

1. Teachers plan and develop lessons based on Michigan Math Content Standards, Mathematical Practices, and learning progressions.
2. Teachers provide a gradual release of instruction: I do, We do, You do.
3. Instruction develops student reasoning to make sense of quantities and relationships between numbers and concepts.
4. Instruction includes the use of multiple mathematical tools for teaching and learning concepts (addition, subtraction, multiplication, division, systems of equations, area, etc). Students will use tools for learning, such as: protractors, graph paper, virtual tools, calculators, base ten blocks, two-sided counters, number lines, etc.
5. Effective teaching of mathematics includes purposeful assessment of student conceptual understanding and procedural skills.
6. Instruction includes opportunities for students to solve real-life problems using multiple entry points, productive struggle, and evidence to support thinking.
7. Teachers deliver instruction that includes multiple solution pathways.
8. Teachers guide student learning with questions from various depths of knowledge.
9. Instruction will emphasize student conversations that includes mathematical vocabulary and reveals misconceptions (misunderstandings).

During high quality mathematical instruction, teachers are:

Engaging students to expand critical thinking about the how and why of mathematics, and to build skills for application and reasoning.

During high quality mathematical instruction students are:

Making sense of mathematics through discussions, problem solving, persevering and using varied solution paths.

High quality mathematical classrooms look like:

Teachers actively facilitating student engagement in learning to solve problems while interacting with math tools and exploring multiple solutions.