

Missoula County Public Schools Mathematics Curriculum



Forward Thinking. High Achieving

Missoula County Public Schools
215 South 6th Street West
Missoula, MT 59801
(406)728-2400
www.mcpsmt.org

Elise Guest, Ed.D
Executive Director of
Teaching and Learning
eguest@mcps.k12.mt.us

Missoula County Public Schools recently adopted a new Mathematics curriculum for our middle school students. The Missoula County Public Schools K-12 Mathematics Curriculum aligns to the Montana Common Core Standards. The standards, which are divided into broad strands: Ratios and Proportional Relationship, The Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability, reflect the essential skills necessary for life, college and career readiness and responsible citizenship in the 21st century. All students need to be skillful in Mathematics to successfully learn in school, to become productive members of society, and to achieve their full potential through life-long learning.

The board approved the adoption of the Carnegie Learning curriculum materials in June 2019 and we are implementing those resources in 6th - 9th-grade classrooms.

How does MCPS define “curriculum?”

The curriculum is the standards that we teach. It is the answer to the first question of our four questions within a Professional Learning Community - “What is it that we want our students to know and be able to do?” Once the standards are clearly defined, then the materials and resources we use to address the standards are aligned. This answers the second question of a Professional Learning Community - “How will we know if they know it?”

“The curriculum must provide clear guidance regarding the content to be addressed in specific courses and at specific grade levels. “ (Marzano et al., 2014, p. 69)

What is a guaranteed and viable curriculum?

- Guaranteed curriculum means every student is provided the opportunity to learn a core curriculum, which provides them with the probability of success in school.
- Viable curriculum means that the necessary time is available in the day, and protected, so students will be able to learn the guaranteed curriculum.

What are curriculum materials?

We choose to utilize common curriculum materials to promote consistency across each school, ensuring that all students are learning in an equitable educational setting. The benefit of common materials enables teachers to come together in a collaborative manner, as a Professional Learning Community, to share in best instructional and assessment practices that ensures improved outcomes for all students.

Mathematics Curriculum Materials

Carnegie Learning is a set of curriculum materials selected by the District because they promote high quality mathematics skills by blending opportunities for students to learn collaboratively and with focused individual learning that enable all students to access learning opportunities and achieve.

Student experience in the classroom

You might have already seen your student about what they are doing in class. Students in each grade level will be building a deep understanding of mathematics through a variety of activities and peer analysis-in an environment where collaboration, conversations and classroom questioning are routine practices.

Students will also learn independently using MATHia, a tutoring technology that adapts to give students exactly what they need at any given moment.

A goal of this new curriculum is to teach our students to be creative problem solvers, critical thinkers, life long learners and more capable adults. We focus on moving beyond memorizing equations to delivering deep conceptual learning as a community.

Here is a summary of topics students will see in their math classrooms during middle school:

6th Grade:

- Composing and Decomposing
- Relating Quantities
- Determining Unknown Quantities
- Moving Beyond Positive Quantities
- Describing Variability

7th Grade:

- Thinking Proportionally
- Operating with Signed Numbers
- Reasoning Algebraically
- Analyzing Populations and Probabilities
- Constructing and Measuring

8th Grade:

- Transforming Geometric Objects
- Developing Function Foundations
- Modeling Linear Equations
- Expanding Number Systems
- Applying Powers

9th Grade:

- Searching for Patterns
- Exploring Constant Change
- Investigating Growth and Decay
- Describing Distributions
- Maximizing and Minimizing

In class, your student will be participating in a lot of small group discussions and activities that help them engage directly with the mathematics concepts. These discussions are designed to help students think critically, reason mathematically, and learn from each other.

