

8th Grade Mathematics Syllabus 2025 - 2026

Instructor Information

Teacher: ____Ms.Villarreal_____
Email: ____Victoria.Villarreal@hcisd.org_____
Conference Period: ____9:44-10:42_____
Room: ____115_____

Course Overview

8th Grade Mathematics is designed to prepare students for Algebra I by developing a deep understanding of linear relationships, functions, geometry, and data analysis. Students will engage in problem-solving, real-world applications, and mathematical reasoning aligned to the Texas Essential Knowledge and Skills (TEKS).

Learning Objectives

- Build conceptual understanding of geometric transformations, similarity, and congruence.
- Develop algebraic foundations through proportionality, slope, linear relationships, and systems of equations.
- Strengthen problem-solving using equations, inequalities, and functions.
- Explore data representation, scatter plots, and lines of best fit.
- Apply the Pythagorean Theorem, properties of real numbers, and scientific notation.
- Apply mathematics to financial literacy and real-world scenarios.

Instructional Materials

Primary resources include the district-adopted Carnegie Learning Curriculum, TEKS-aligned resources, Lead4ward Field Guides, and supplemental technology-based tools (Desmos, Khan Academy, SuccessEd reports).

Classroom Expectations

- Be prepared with materials and a growth mindset each day.
- Participate actively in lessons, group work, and discussions.
- Respect yourself, your peers, and your learning environment.
- Follow school and classroom procedures consistently.

Assessment & Grading Policy

Students will be assessed through daily practice, quizzes, unit assessments, projects, and benchmarks. Grades will follow district policy:

- Major Assessments (Tests, Projects): 40%
- Daily Work/Quizzes: 40%
- Participation/Homework: 20%

Small Group and Intervention Structure

Small group days are built into the instructional calendar to provide targeted support, enrichment, and reteaching opportunities. Data conferences will guide intervention strategies to meet student needs.

Major Units of Study

Quarter 1:

- Module 1: Transforming Geometric Objects (Rigid Motion, Similarity, Angle Relationships)

Quarter 2:

- Module 2: Developing Function Foundations (Proportions, Linear Relationships, Functions)
- Module 3: Data, Data Everywhere (Bivariate Data and Statistics)

Quarter 3:

- Module 4: Modeling Linear Equations (Solving Equations, Systems of Equations)
- Module 5: Applying Powers (Real Numbers, Pythagorean Theorem, Scientific Notation, Financial Literacy)

Quarter 4:

- Module 5 Continued: Volume of Curved Figures
- STAAR Review and End of Year Performance Tasks

Important Dates

- BOY Assessment: September 2, 2025
- Fall Checkpoint: November 6, 2025
- MOY Assessment: January 20, 2026
- Spring Benchmark: March 10, 2026
- Math STAAR: April 21 - May 1, 2026
- EOY Assessment: May 11, 2026