



Course Name: Grade 8 Math
School Year: 2021-2022

Course Purpose and Relevance:

The **primary content focal areas** in Grade 8 are proportionality; expressions, equations, relationships, and foundations of functions; and measurement and data.

The **process standards** weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, algorithms, paper and pencil, and technology and techniques such as mental math, estimation, number sense, and generalization and abstraction to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, computer programs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Overview of Student Outcomes:

- The student uses concepts, algorithms, and properties of real numbers to explore mathematical relationships and to describe increasingly complex situations.
- The student uses concepts of proportionality to explore, develop, and communicate mathematical relationships.
- The student uses algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other.
- The student connects verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities.
- The student begins to develop an understanding of functional relationships.
- The student uses geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems.
- The student communicates information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems.
- The student uses appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations.
- The emphasis on algebra readiness skills necessitates the implementation of graphing technology.

Available Support for Student Learning:

Refer to the teacher's Course Syllabus for resources and course specific opportunities. The adopted textbook for Grade 8 Math is Houghton Mifflin Texas Go Math! Student textbook and/or digital version are available through the CCISD Student Portal.

Links to Course TEKS and RESOURCES FOR PARENTS on TEA website:

[Texas Knowledge and Skills for Grade 8 Mathematics](#)
[Resources for Parents](#)



First Semester

Unit 1: Real Numbers

Unit 2: Equations and Inequalities with Rational Numbers

Unit 3: Geometry of Planar Figures

Unit 4: Linear Proportional Relationships

Unit 5: Linear Non-Proportional Relationships

Review and District Exam

Unit 6: Linear Relationships and Functions

Unit 7: Geometry of Solids

Unit 8: Transformational Geometry

Unit 9: Real-Life Math: Data Analysis and Personal Financial Literacy Part 1

Unit 10: Real Life Math: Data Analysis and Personal Financial Literacy Part 2

Week of May 9: STAAR Test

Unit 11: Bridge to Algebra: Equations and Inequalities