

ALGEBRA: CONCEPTS & CONNECTIONS



Welcome to the Algebra: Concepts and Connections Course! Our goal is to help you understand the mathematics your child will be learning in this course. This letter will explain the mathematics expectations and supporting resources to support student learning in the course. For additional support and questions, please contact your child's teacher at their school.

In Algebra: Concepts & Connections is the first required course in high school mathematics. The mathematical practice standard, **A.MP**, will allow students to demonstrate skills and strategies needed to succeed in the course, including critical thinking, reasoning, effective collaboration and expression. Students should be able to use the content learned in this course to create a mathematical model to explain real-life phenomena. Students should be able to navigate fluently between mathematical representations that are presented numerically, algebraically, and graphically. Students should also be able to determine, identify, and use appropriate quantities for representing the situation.

MATHEMATICS COURSE CONTENT

MATHEMATICAL MODELING

Model real-life situations

PATTERNING & ALGEBRAIC REASONING

work with linear inequalities to model real-life phenomena

build and solve quadratic equations

build and analyze exponential equations

NUMERICAL REASONING

investigate rational and irrational numbers

FUNCTIONAL & GRAPHICAL REASONING

interpret sequences and identify key characteristics of linear functions

describe, construct, and interpret quadratic functions

describe, construct, and interpret exponential functions

GEOMETRIC REASONING

solve problems involving distance, slope, area, and perimeter

DATA & STATISTICAL REASONING

ask questions and collect data to solve problems with one and two variables



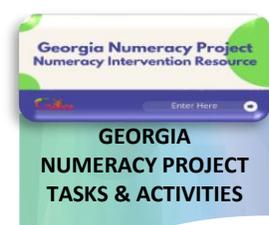
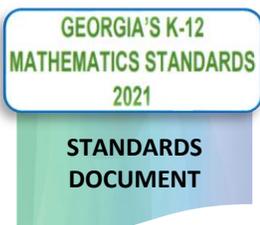
How will your child engage when learning mathematics?

<u>Positive Mathematical Mindsets</u>	<u>Mathematical Practices</u>
Fostering positive mathematical mindsets is essential to support your child's mathematical growth and development.	Mathematical practices are the habits of mind for learners to demonstrate as they are engaging in exploring the mathematics content.
<u>Mathematical Modeling</u>	<u>Statistical Reasoning</u>
Students will be expected to engage in the cycle for Mathematical Modeling in all learning tasks and activities to support student engagement at the highest level.	Students will be expected to engage in the four-part statistical problem-solving process K-12 by asking statistical questions, collecting data, analyzing data, and interpreting the results.

Scan the QR code for more information and access to all links within this document.



Getting to know your child's teacher is important and communication with them throughout the year will support your child's individual growth while learning mathematics. The resource links below are provided to help support learning at home as you engage your child in meaningful work while they are learning mathematics. If at any time you have additional questions or need to request additional support, please reach out to your child's teacher.



Richard Woods, Georgia's School Superintendent

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