

# 8th GRADE MATHEMATICS



Welcome to Eighth Grade! Our goal is to help you understand the mathematics your child will be learning this year. This letter will help you better understand the mathematics expectations for 8th Grade and the supporting resources to provide ideas of how to work with your child at home throughout the school year. For additional support and questions, please contact your child's teacher at their school.

In 8th Grade, there are eight mathematics content standards for students to learn. Your child will learn to demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, effective collaboration and expression. Your child will also be encouraged to seek help and to apply feedback to the task at hand while setting and monitoring individual goals. Learning to solve problems successfully will be a goal for students all year.

## 8th GRADE MATHEMATICS CONCEPTS

### NUMERICAL REASONING

solve problems involving rational and irrational numbers

solve problems involving radicals and exponents; apply scientific notation to explain real world situations

### PATTERNING & ALGEBRAIC REASONING

create and interpret expressions, equations, and inequalities

explain connections between proportional and nonproportional relationships

### FUNCTIONAL & GRAPHICAL REASONING

describe the properties of functions; define, evaluate, compare relationships

solve problems involving linear relationships and data with two variables

solve problems involving angle measurement, circles, surface area, and volume

### GEOMETRIC & SPATIAL REASONING

solve problems involving angle measurement, circles, surface area, and volume



## How will your child engage when learning mathematics?

<u>Positive Mathematical Mindsets</u>	<u>Mathematical Practices</u>
<p>Fostering positive mathematical mindsets is essential to support your child's mathematical growth and development.</p>	<p>Mathematical practices are the habits of mind for learners to demonstrate as they are engaging in exploring the mathematics content.</p>
<u>Mathematical Modeling</u>	<u>Statistical Reasoning</u>
<p>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.</p>	<p>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.</p>

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.



Parent Resources

GEORGIA MILESTONES



STANDARDS DOCUMENT



PARENT VIDEO SERIES



DIGITAL LEARNING PLANS



BEDTIME MATH STORIES



GEORGIA NUMERACY PROJECT TASKS & ACTIVITIES

Richard Woods, Georgia's School Superintendent

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