

# Secondary Mathematics Pathways for Georgia's New K-12 Mathematics Standards

Georgia's K-12 Mathematics Standards, adopted August 26, 2021, provide school districts the opportunity to offer a variety of mathematics courses that support students on their individual paths toward achieving post-secondary success. For the specific grade-level and course expectations adopted by the State Board of Education, **local districts can determine how the specific expectations are organized within and between courses** (i.e., support courses, enhanced courses, accelerated courses, advanced placement courses and courses that blend multiple content areas, such as STEM/STEAM interdisciplinary teaching and learning).

Unique support course options, such as Foundations of Algebra, Early Intervention Program, Mathematics Remediation Education Program, Co-Requisite Support Course options, and Technical College Readiness, as well as STEM/STEAM programming, and acceleration, advanced, and enrichment course options in various grades, K-12, can be provided by local school districts to ensure that each student receives the instruction best suited for them.

## Key Highlights

The minimum core mathematics course requirements to earn a high school diploma in Georgia include:

- Algebra: Concepts and Connections or the equivalent
- Geometry: Concepts and Connections or the equivalent
- Advanced Algebra: Concepts and Connections or the equivalent
- A fourth core mathematics course option

Though all students have the same core mathematics requirements for graduation, there are many paths to meet those requirements. For example, STEM/STEAM programming offers unique opportunities for content in mathematics to be blended with other content areas for students to develop a deep understanding of the expectations outlined in each grade level and course.

The Georgia Department of Education has created a catalog of secondary courses to help students meet their graduation requirements. These course options include support, enrichment, enhanced, advanced placement, International Baccalaureate (IB), dual enrollment, and more.

The mathematics pathways of courses should be offered as an option for all students based on student interest and post-secondary goals. All paths should provide open access for all students with multiple on-ramps and off-ramps as they matriculate through the secondary grade levels.



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# Middle School Mathematics

Middle school is a time for students to explore various pathways in preparation for high school and the course pathways should provide open access to all courses taken at the secondary school levels. At each grade level, acceleration and support options can be provided by the local district to support students' unique needs.

Students should also receive interventions and supports through a well-designed instructional support infrastructure through Georgia's Tiered System of Supports for Students. Highly able learners, identified by the local school district, will continue to have the opportunity to engage with accelerated and/or enhanced content to meet their unique needs. Local school districts will continue to have the flexibility to offer accelerated models that best meet their needs.

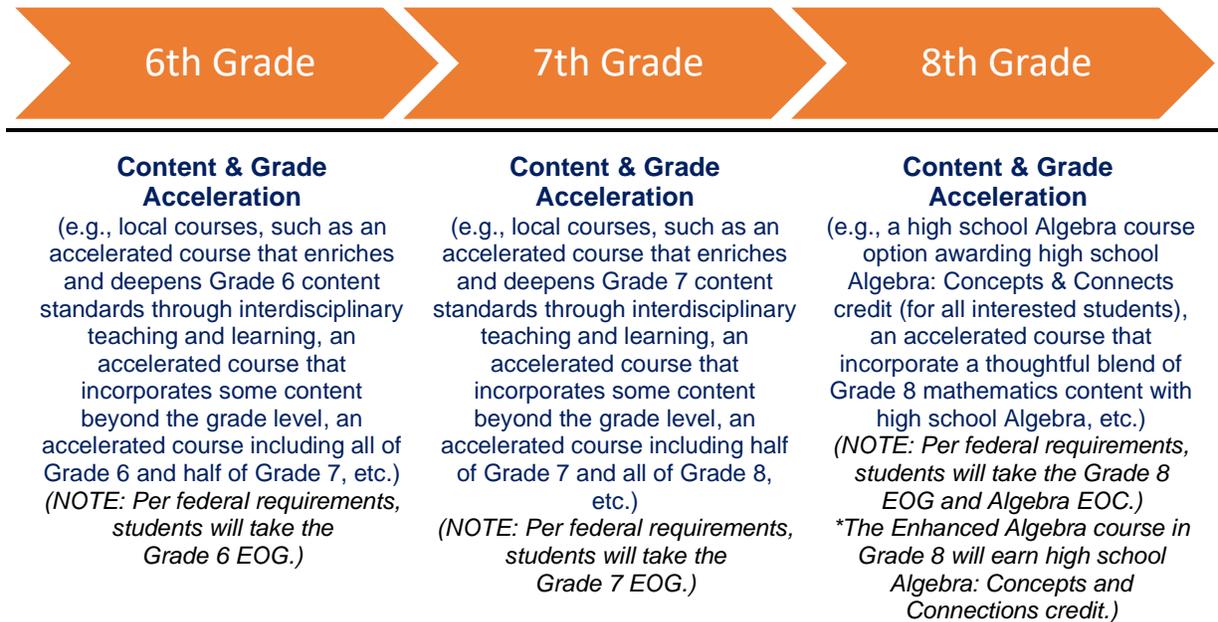
The following table provides the minimum assessment and accountability requirements as well as a list of ideas for support, enhancement, and acceleration at each grade level. **This list is not all-inclusive.** Students who successfully complete 8<sup>th</sup> Grade Mathematics are adequately prepared to enroll in Algebra: Concepts and Connections in 9<sup>th</sup> grade.

<b>Grade-Level Assessment &amp; Accountability Expectations</b>	<b>Grade 6 Georgia's K-12 Mathematics Standards 6<sup>th</sup> Grade</b>	<b>Grade 7 Georgia's K-12 Mathematics Standards 7<sup>th</sup> Grade</b>	<b>Grade 8 Georgia's K-12 Mathematics Standards 8<sup>th</sup> Grade</b>
<b>Ideas for Support, Enhancement, &amp; Acceleration</b>	<ul style="list-style-type: none"> <li>• Content and grade acceleration and support</li> <li>• STEM/STEAM interdisciplinary programming with embedded mathematics content</li> <li>• Courses that blend multiple content areas or grade-level standards</li> <li>• *District approved options</li> </ul>	<ul style="list-style-type: none"> <li>• Content and grade acceleration and support</li> <li>• STEM/STEAM interdisciplinary programming with embedded mathematics content</li> <li>• Courses that blend multiple content areas or grade-level standards</li> <li>• *District approved options</li> </ul>	<ul style="list-style-type: none"> <li>• Content and grade acceleration and support</li> <li>• New enhanced course option: Enhanced Algebra: Concepts and Connections</li> <li>• STEM/STEAM interdisciplinary programming with embedded mathematics content</li> <li>• Courses that blend multiple content areas or grade-level standards</li> <li>• *District approved options</li> </ul>

**\*NOTE: All options include opportunities for support and content acceleration. Local school districts have flexibility to offer additional course options that meet the needs of students in their specific school communities.**

## Middle School Acceleration

Accelerated mathematics moves at a rapid pace, with challenging and demanding material. Students must be proficient with mathematical problem-solving and work in a fast-paced instructional environment. This path is designed for students who excel at mathematics, are self-motivated, and are interested in pursuing more advanced mathematics classes in high school. See the graphic below for **typical** accelerated structures.



**Local school districts have the flexibility to offer accelerated models that best meet the needs of their school communities.**

## New Middle School Accelerated Option

A new Enhanced Algebra: Concepts and Connections course blending option will be offered for learners seeking advanced and accelerated mathematics in Grade 8. This course option can be provided for all learners seeking to pursue accelerated mathematics content in Grade 8 regardless of the course taken previously. The new Enhanced Algebra: Concepts and Connections course will be provided for students interested in pursuing advanced mathematics courses in middle and high school, including courses that go beyond the four core mathematics course options. This accelerated course option aligns with federal assessment and accountability requirements for the grade level to benefit students and teachers and provides a thoughtful blend of SBOE approved standards.

The Enhanced Algebra: Concepts and Connections course, designed for students who have mastered the Grade 7 Mathematics standards, is a blend of the topics addressed in Grade 8 Mathematics (i.e., linear functions) and the topics addressed in Algebra: Concepts and Connections (i.e., non-linear functions). The content of this course prepares students for the federal assessment requirements, including the content assessed on the Grade 8 EOG and the HS Algebra EOC. Students who successfully complete Enhanced Algebra: Concepts and Connections will be prepared for Geometry: Concepts and Connections as a subsequent course.

## High School Acceleration and Supports

*(Local districts may add additional options, as needed.)*

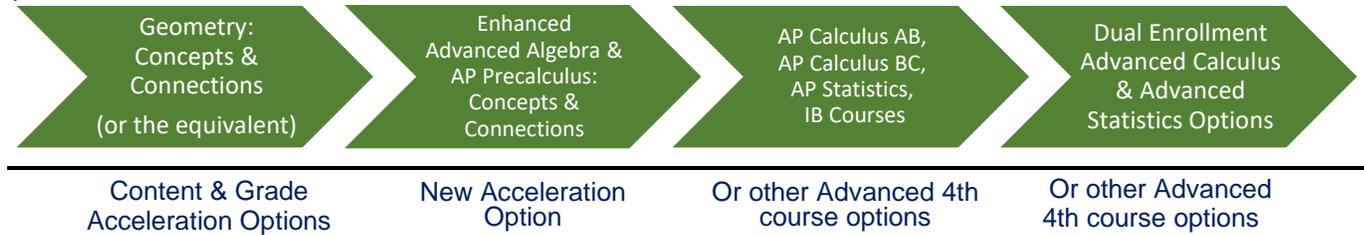
High school course acceleration options and supports may also be provided by the local district to support the learner through a tiered instructional support model. Support courses and advanced-level mathematics courses, such as **Foundations of Algebra, Technical College Readiness Mathematics, Enhanced Advanced Algebra and AP Precalculus: Concepts and Connections,**

**Advanced Placement Calculus, Advanced Placement Statistics, Advanced Placement Calculus BC, and any other enhanced learning opportunities** are made available for students' unique needs based on their interests and post-secondary plans.

**A new course blending option has been made available for advanced learners that includes Enhanced Advanced Algebra and AP Precalculus: Concepts and Connections starting in 2023-2024.** All learners should have the opportunity to enroll in support courses and advanced placement mathematics courses at the high school level based on their course-taking patterns at the middle school level. All options should be made available for all students.

## High School Acceleration

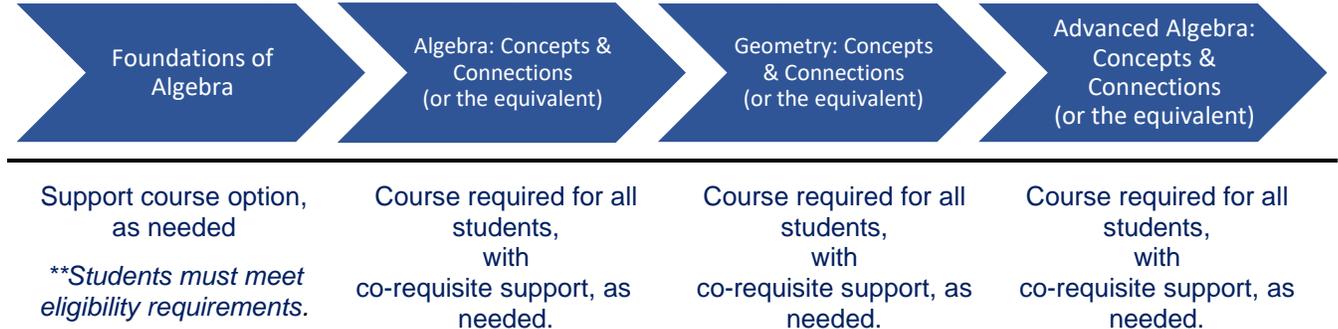
*(Local districts may add additional options, as needed.)*



**\*Local school districts maintain the flexibility to offer courses that best meet the needs of students in their school communities.**

## High School Supports

*(Local districts may add additional options, as needed.)*



**NOTE: Technical College Readiness as an ACCUPLACER® Prep Support course may be taken, as needed, for students interested in Dual Enrollment Option B. Students must meet eligibility requirements.**

**Co-Requisite support courses may be taken in conjunction with the core mathematics course they are paired with to provide students with the necessary intervention support in real time as they are working toward mastery of the grade-level standards. The co-requisite support courses are not stand-alone courses; these courses assist students as they work to earn the required core course credit.**

## More Information and Contact Information

For more information regarding accelerated and support options and instructional resources aligned to Georgia's K-12 Mathematics Standards (2021), visit [www.gadoe.org/mathematics](http://www.gadoe.org/mathematics) and [www.georgiastandards.org](http://www.georgiastandards.org).

For more information regarding mathematics support and acceleration, please contact the Georgia Department of Education Mathematics at [mathematics@doe.k12.ga.us](mailto:mathematics@doe.k12.ga.us).

For more information regarding the most current version of the state-funded courses (SBOE 160-4-2-20) please visit: <https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Pages/default.aspx>.