

What makes a successful advanced and accelerated math student?

Forsyth County Schools (GA), compiled January 2024

This document is an attempt to provide information to students and families in finding the best fit in the FCS Math program. Because **students in advanced, accelerated, and honors math courses learn more than just grade or course standards**, students need to exhibit strong habits of learning in order for them to succeed. The skills and behaviors listed below will be developed during middle school, with the goal of students entering high school with many of these tools in their “mental toolbox.”

In short, students who take math classes above grade level can expect to work harder and learn more content, requiring more time for individual, independent practice. The pace of learning more than a year’s worth of content requires students to be able to adopt learning behaviors that prepare them for success in high school and beyond. Below are characteristics and behaviors found in students who have been successful in advanced, accelerated, and honors mathematics courses:

1. Students are eager to learn about the math behind the concept.
 - a. Students are not interested in just learning “tricks” for a math procedure.
 - b. In addition to getting a final answer, students learn process and reasoning.
 - c. Students pay attention to details such as notation.
2. Students practice math on their own and are interested in math as a discipline.
 - a. Homework is completed without prompting.
 - b. Homework is seen as a tool to develop understanding.
 - c. Homework is done even though it is not graded.
 - d. Students research math topics on their own to deepen their understanding.
3. Students don’t just grab a calculator, having strong number sense and mental math skills, including the following topics
 - a. Fraction fluency
 - b. Understanding equivalent answers and when certain formats are appropriate
 - c. Factoring using strategies based on the situation, beginning with numbers and extending to variables
 - d. Radical decomposition by hand (starting in Algebra)
4. Students independently take notes during class.
 - a. Students make personal emphasis on ideas, such as highlights, sketches, and diagrams.
 - b. Students write more than just what is presented by the teacher.
5. Students self-monitor as they learn.
 - a. Students stick with a problem even when difficult.
 - b. Students make inferences from what they are reading and computing.
 - c. Students actively seek feedback and make changes based on the feedback.
 - d. Students determine whether they retain and recall the information they have learned, going beyond just looking at grades when assessments are returned.
6. Students communicate effectively with teachers and peers.