

Family Guide for Student

SUCCESS

High School & ACT



AMSTI
Alabama Math, Science,
and Technology Initiative

FAMILIES + SCHOOLS = STUDENT SUCCESS

Parents and family are a child's first teachers in life and have valuable insights into the needs, strengths, and interests of their child. The collaboration of caregivers and educators is vital in guiding each child toward success. The achievement of high school critical content will help your child meet the assessment standards established by our state. The ACT with Writing will be administered to all students in grade 11 and will start between March 29th until March 30, 2022. You can encourage your child's academic growth by reinforcing classroom activities at home. It is only through your support and active participation in your child's education that we form a partnership for success for all the children in Alabama.

WHAT CAN YOU DO TO HELP?

Ask your child the following questions to incorporate math into their everyday life:

- Determine how long your child will have to save their allowance to reach their goal in their savings account.
- Figure out if it is more cost-effective to lease or buy a car.
- Discuss the layout for building a driveway and purchasing the materials using your application of math.
- Compare the cost of different cell phone plans.

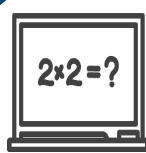
HIGH SCHOOL CONTENT PRIORITIES

This guide provides an overview of what your child will learn in high school mathematics. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for future specialized high school courses. High school mathematics focuses on four essential areas, all of which have equal importance:



NUMBER and QUANTITY

Your child can use work with rational, irrational, and complex numbers within algebraic expressions to solve problems.



ALGEBRA and FUNCTIONS

Your child can formulate, analyze, and solve equations and functions, and explain the relationship between quantities.



STATISTICS and PROBABILITY

Your child can represent data and use statistical reasoning about data collected to draw conclusions, assess risks, and make predictions.



GEOMETRY & MEASUREMENT

Your child can use proportional relationships to explore the effects of changing quantities of 2D shapes, volume of 3D figures, and use transformations to verify congruence and similarity of figures.

ACT Assessment Tips

State assessments are used by teachers and administrators for intervention, curriculum review, course planning, collaboration, and professional development. State assessment reports are excellent tools that can be used by counselors and teachers as they assist students in preparing for their futures. State assessments provide knowledge of students' educational strengths and weaknesses, college plans, and career interests.

- The mathematics section of the ACT is designed to assess students' mathematical skills up to the beginning of grade 12. The ACT Math Test has 60 questions that must be completed in 60 minutes. Therefore, students have about 1 minute per question on the ACT.
- Students are allowed to use a calculator on the ACT. For calculator policies, check out: www.act.org/calculator-policy.html
- There are 8 reporting categories addressed on the math portion of the ACT. Preparing for Higher Mathematics (57-60% of the test)
 - Number and Quantity (7-10%)
 - Algebra (12-15%)
 - Functions (12-15%)
 - Geometry (12-15%)
 - Statistics and Probability (8-12%)

Integrating Essential Skills (40-43% of the test) which addresses students' prior knowledge from middle and elementary grades.

Modeling (>25% of the test) is embedded throughout the categories above.

Planning for College and Career

Sit down with your child's teachers and counselors to discuss what it will take for your child to graduate, your child's goals, and their plans after high school. Create a plan together to help your child reach their goals. This plan should include:

- An appropriate course sequence
- The most appropriate extracurricular activities

WHAT IS AMSTI?

The Alabama Math, Science, and Technology Initiative, commonly referred to as AMSTI, is the Alabama Department of Education's initiative to improve STEM teaching & learning statewide. Its mission is to support Alabama educators and students in learning STEM by doing STEM. Check us out by scanning the QR Code.



“Assessment is the engine which drives student learning.”

HOMEWORK & EXAM PREP HELP

Create a designated learning space & set a schedule.



AMSTI

Quick links for Family Resources to do math at home.

www.amsti.org/912-math-student-family

Motivate & encourage commitment & perseverance.




Khan Academy

Instructional Math Videos with Interactive Guided Practice

www.khanacademy.com

Stay involved & check-in daily.



Math Help!

Instructional Math Videos with Interactive Guided Practice & Self-Assessment

www.mathhelp.com

Teach work/life balance & minimize distractions, social media included.



DESMOS

Free Scientific Calculator similar to the one on the ACAP.

www.desmos.com/scientific

Connect learning in school to future pathways and career goals.

ACT

Scroll to the bottom for free test prep in various platforms.

<https://www.act.org/content/act/en/products-and-services/the-act/test-preparation.html>