

# AGA

Algebra 1 Geometry Algebra 2

## Meets ESSA "DEMONSTRATES A RATIONALE" Evidence Criteria

The Every Student Succeeds Act (ESSA) promotes evidence-based education programs by ensuring that programs are proven to be effective in increasing student achievement. ESSA includes four levels of evidence: strong, moderate, promising, and evidence that demonstrates a rationale. The ratings of the ESSA level of evidence reflect the quality, rigor, and statistical significance of the research study design and findings of the study. HMH's evidence ratings are based on the U.S. Department of Education's nonregulatory guidance for ESSA. Evidence ratings issued by clearinghouses and independent research agencies (e.g., Evidence for ESSA) may differ due to the varying criteria used to judge evidence.

### PROGRAM OVERVIEW

*Houghton Mifflin Harcourt Algebra 1, Geometry, and Algebra 2 (AGA)* was developed to help address rigorous standards and turn students into problem solvers who master concepts, become fluent with procedures, and apply the principles they've learned to real-world situations. While presenting algebra and geometry in a traditional three-course path, *HMH AGA* delivers this content with a truly innovative, adaptive approach, offering the rigor, depth of coverage, and guidance needed to prepare students for success on high-stakes assessments, in college, and in their careers.



**STUDY LOCATION:** Four schools in Missouri, New York, and Ohio  
**STUDY YEAR:** 2014–2015  
**STUDY CONDUCTED BY:** Educational Research Institute of America

### EVIDENCE CRITERIA

Provides a well-specified logic model informed by research or evaluation

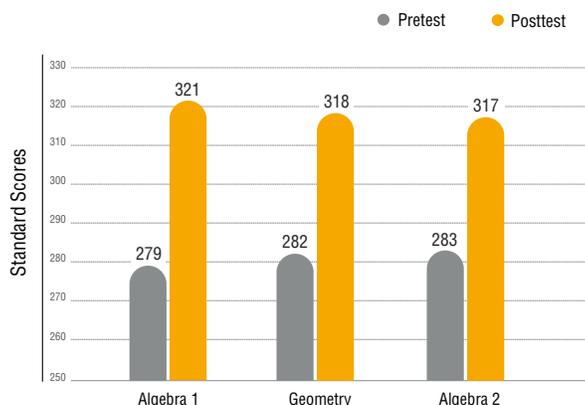
### STUDY EVIDENCE & HIGHLIGHTS

*HMH Algebra 1, Geometry, and Algebra 2 (AGA)* is a balanced, rigorous high school math curriculum sequence that is designed to provide a deeper understanding of math concepts through inquiry-based exploration and effective technology-based tools. The program was designed to meet the focus, rigor, concepts, and practices of modern standards. *HMH AGA* offers an interactive and engaging student experience with seamless integration of print and digital features for in-class and on-the-go learning. A supportive instructional model enables focused, balanced, and rigorous teaching of math standards. An accessible 5E framework enables teachers to deliver lessons that immerse students in math procedures and concepts, guiding them to interact with mathematics by engaging, exploring, explaining, elaborating, and evaluating.

Relevant research or an evaluation that suggests that the intervention is likely to improve student outcomes or other relevant outcomes; an effort to study the effects is underway at the higher evidence levels

Using a pretest/posttest research design, researchers examined the performance of 531 students who used *HMH AGA* program as their core math instruction during the Spring 2015 academic semester. Statistical analyses indicated that students using *HMH AGA* made statistically significant gains over the course of the year. This achievement occurred across all three courses and for students identified as low achieving and high achieving based on the results of the pretest scores.

HMH AGA Standard Scores from Pretest to Posttest



To learn more about the research behind HMH AGA, visit [hmhco.com/programs/aga](http://hmhco.com/programs/aga)

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