

**RFP No. 2021-23**  
**High School Mathematics Core Resource Adoption**  
**Algebra 1, Geometry, Algebra 2**

**Rationale for Purchase:**

High quality mathematics instructional materials that are aligned to the Maryland College and Career Ready Standards have been provided within the WCPS Essential Curriculum (EC) for Algebra 1, Geometry, and Algebra 2 in lieu of a single core mathematics resource since Savvas (previously known as Pearson) broke contract with WCPS by discontinuing the primary resource identified in the EC during the 2019-2020 school year. Acquiring a core mathematics resource will once again provide teachers with a consolidated resource that supports content, pedagogy, planning, and now acceleration. This is imperative for high school mathematics teachers, many of whom plan daily for two to four different mathematics courses. A core resource must provide teachers with not only the “what”, but also with research-based best practices for “how” to teach mathematics and the instructional adjustments to meet the needs of all learners.

As a result of Savvas’s decision to no longer provide access to the previously identified primary resource, these three math courses currently have available a secondary resource to support the development of procedural fluency. This secondary resource was previously paid in full for yet another 3 years, however, in this review against the Maryland Rubrics for Reviewing Curricular Support Materials, it did not perform as well as the other options. This speaks volumes as to why we cannot continue to use the secondary resource and should transfer our energy toward *Into AGA* as a comprehensive resource which supports access and equity of a high quality mathematics learning experience for all learners.

With a goal to ensure that learners are College- and Career-Ready and that every mathematics pathway is available to all students when completing Geometry and/or Algebra 2, a core mathematics resource across the county provides access and equity to essential mathematics experiences for all students. Improving the viability of the WCPS Essential Curriculum is necessary in order to deepen the understanding of mathematics and its relevance and application in the real world, and in turn increasing student mathematics proficiency.

Given the need to improve the teaching and learning of Algebra 1, Geometry, and Algebra 2 for the sake of all learners through high quality materials and experiences, the teacher selection committee highly recommends the purchase of *Into AGA* by Houghton Mifflin Harcourt.

**Recommended Purchase:**

*Into Algebra 1, Geometry, Algebra 2 (Into AGA)* by Houghton Mifflin Harcourt

*Into AGA* is a comprehensive solution including digital delivery and consumable resources that are designed to monitor, predict, and propel student growth. Built from research, expert insights, and teacher feedback, *Into AGA* delivers a student-centered, outcomes-driven approach to learning mathematics. The authors crafted this next-generation program to reflect the recommendations of the National Council of Teachers of Mathematics (NCTM); the National Research Council (NRC); the Stanford Center for Assessment, Learning, and Equity (SCALE); and other significant research in the areas of mathematics education, language and mathematics, the science of learning and cognition, teacher preparedness and instructional

practices, equity and diversity in mathematics education, growth mindset, and digital learning. Its methodology generates deeper understanding of concepts, creates stronger conceptual-to-procedural connections, builds fluency, and embeds real-world application opportunities throughout.

Some of the key features of *Into AGA* include:

- coherent progression of content addressing all content and practice standards for this three-course sequence.
- Build Understanding lessons, bridging to procedural fluency (Connect Concepts and Skills), and supporting transfer of learning (Apply and Practice lessons).
- student-centered strategies, real-world connections, active mathematical discourse with language routines and talk moves, and continuous integration of Mathematical Practices.
- strong support for English learners woven throughout every component.
- formative assessment processes embedded into every learning cycle along with diagnostic and summative assessments to form a comprehensive assessment portfolio.
- differentiated activities, resources, and strategies for students who grasp concepts quickly and for those needing more support.
- focus on a growth mindset.
- professional growth opportunities to provide teachers with just-in-time support.
- learning progressions for each topic that clearly identify prior learning, current goals, and future connections.

**Cost of Purchase: Approximately \$593,000**

<b>Title of Item / Description</b>	<b>Order Quantity</b>	<b>Unit Price (per student per year)</b>	<b>Extended Price for 4 years</b>
Digital Student Licenses	5,000	\$18.00	\$360,000
*Student Print - Consumables	5,000	\$10.75	\$215,000
Digital Teacher Licenses	80	Gratis	Gratis
Teacher Print (one time)	120	\$150.00	\$18,000
Shipping		8% of print materials	\$18,640
Professional Development - 18 hours for each of 80 teachers over four years	18 hours	Gratis	Gratis
<b>GRAND TOTAL</b>			<b>\$611,640</b>

\*The amount of student print consumables can be adjusted on a yearly basis at a fixed unit cost per student not to exceed \$10.75. Therefore, the purchase of consumables is not to exceed a total of \$215,000 over four years.

**Selection Process:**

January 4, 2021	RFP Issued
February 9, 2021	Deadline for RFP proposal submission
February 17, 2021	Supervisor and Content Specialists narrowed selection
March 1, 2021	Finalist presented resource to selection committee
March 3, 2021	Finalist presented resource to selection committee
March 4 - May 10, 2021	Selection committee reviewed resources
May 12, 2021	Selection committee selected recommended resource
May 17, 2021	Presentation to C&I Committee

June 1, 2021

Request Board approval for purchase

**Selection Committee Members:**

Antietam Academy	Katie Mason
Barbara Ingram School for the Arts	Stephani Hoffman
Clear Spring High School	Lori Block, Jason McMillan, Erin Wadel
North Hagerstown High School	Brittney McDonald, Jena Staley
Smithsburg High School	Mike Hoover, Brenda Horning
South Hagerstown High School	Alex Hauryski
Washington County Technical High School	Joey Barvir, Kyle Thompson
Williamsport High School	Susan Kaltenbaugh, Pamela Kline, Elizabeth Wood
English Learners Supervisor/Specialist	Paula Moore, Georgine Rabenold

**Selection Criteria:**

Resources were evaluated in the following areas using the Maryland Rubric for Reviewing Curriculum Support Materials:

- Alignment to MCCR Mathematics Standards - Instructional materials for mathematics are aligned to content and practice standards in the Maryland College and Career Ready Mathematics Curriculum Framework.
- Evidence-Based Practices in Mathematics - Instructional materials are aligned to research- and evidence-based practices for mathematics.
- Culturally Responsive and Equitable Teaching Practices - Materials should be culturally responsive and include a variety of student experiences and representations to avoid bias and promote equity.
- UDL/Differentiation for Diverse Learners - Materials provide strategies and resources to help teachers ensure that content is accessible to and appropriately challenging for a full range of learners.
- Differentiation for English Learners - Materials provide support for English learners (ELs) of varying levels of English proficiency to allow them to access the academic language and content of the lessons. Materials enhance ELs' engagement and active participation in learning. Prerequisite lessons include specific EL support as needed.
- Formative Assessment Practices - This rating factor addresses the degree to which the curricular support materials offer teachers resources, tools, and guidance on key formative assessment practices such as how to collect ongoing evidence about student progress toward learning goals, how to interpret that evidence, how to provide feedback to students, how to adjust ongoing teaching to improve students' achievement, and how to encourage students to monitor their own progress.
- Summative Assessment Components - Curricular support materials include valid, reliable, and meaningful summative assessments and performance tasks that are fair, unbiased, and accessible to all students.
- Implementation Support - Curricular support materials for teachers are easy to use and help teachers plan for teaching and learning, as well as accommodate to special needs. There is also sufficient guidance on how to adapt materials when needed to fit students' needs and available time. In addition, curriculum resources should include

accommodations and/or additional resources to support regular and active participation in learning for all students, including those with sensory or physical disabilities.

### **Teacher Comments about Into AGA by Houghton Mifflin Harcourt:**

- Algebra 1 teacher (1) - Strong links in each unit to real-life context, and scaffolding to accelerate learning is present in most lessons.
  - Algebra 1 teacher (2) - There are lots of opportunities for students to interact with each other about the content.
  - Algebra 1 teacher (3) - Formative assessment throughout with questioning and checks for understanding that help guide the teacher to what the student should do next.
  - Algebra 1 teacher (4) - Asks good questions that students are encouraged to discuss with each other and encourages productive struggle and pushes students to show their thinking.
  - Geometry teacher (1) - Planning supports are excellent. including clear delineation of past and present learning and vocabulary for both teachers and students.
  - Geometry teacher (2) - The STEM Activities provide multiple entry points and many visuals are provided on the online interactive lesson.
  - Geometry teacher (3) - Fosters student discussion, builds in language routines for English learners and ALL students, and the comprehensive resources make it easy to plan and implement mathematics routines.
  - Geometry teacher (4) - Has Data-driven intervention that addresses the concept/skill in prior learning and then how you can intervene.
  - Algebra 2 teacher (1) - Tasks promote reasoning by having students write out their thought process. Allows them to come to conclusions through different methods.
  - Algebra 2 teacher (2) - The lessons are conceptual in nature and have a balance between understanding and procedural fluency.
  - Algebra 2 teacher (3) - Interactive lessons, cooperative learning opportunities. “Spark Your Understanding” may help to hook reluctant math students.
  - Algebra 2 teacher (4) - Clear reference to standards and practices found in the teacher version, and rubrics are provided to assess student performance.
  - Algebra 2 teacher (5) - Extensive resources for teachers to choose from to support productive struggle and elicit/use evidence of student thinking.
  - Special Education Content Teacher (SEC 1) - The teacher’s edition is very good, particularly for new teachers. It includes detailed information about mathematical progression, questioning, and differentiation.
  - SEC 2 - Online manipulatives including algebra tiles and geometry sketcher available for student investigation.
  - English Learner Supervisor & Specialist - Language Acquisition through Meaningful Routines is embedded and is structured but adaptable. These routines provide students with opportunities to listen, speak and write about mathematical practices and is effective for all English language proficiency levels.
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