ISTE Seal Review Findings Report

Magma Math

2025

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ABOUT

ABOUT ISTE

The International Society for Technology in Education (ISTE) is home to a community of global educators and solution providers who are passionate about using technology to revolutionize learning. Our vision is to create a bold community where education innovators are supported in reimagining and redesigning learning with a focus on using technology to create transformational and equitable experiences for learners. We're making this vision a reality by delivering practical guidance, evidence-based professional learning, virtual networks, thought-provoking events and the ISTE Standards.

ISTE SEAL

The ISTE Seal serves as a mark of high-quality product design for solutions that enable and guide high-quality learning. By choosing to demonstrate their commitment to supporting best practices for teaching and learning, these products show a purposeful and meaningful dedication to practical usability, digital pedagogical implementation, and the ISTE Standards. With a focus on user experience, product usability, and the most essential elements of instructional technology today, the ISTE Seal provides a set of criteria and simple indicators to guide educators, students, and technology directors toward the very best products on the market.

ISTE awards a seal only after an extensive analysis conducted by trained ISTE reviewers that ensures a product meets all critical elements under specific review criteria.

By earning an ISTE Seal, ISTE verifies that this product:

- Promotes critical technology skills.
- Supports the use of technology in appropriate ways.
- Incorporates digital pedagogy and the learning sciences.
- Addresses key elements of tech usability, user experience and user interface.
- Aligns to ISTE Standards in specific ways.

RESOURCE DESCRIPTION

WHAT IS *Magma Math*?

Magma Math is a K-12 supplemental math platform that encourages students to show their work, enables teachers to understand each student's thinking and readiness level, differentiates instruction, and engages students in math discourse. Students engage with math problems assigned by their teacher in Magma one at a time on a virtual canvas that mimics the paper-and-pencil experience. When students submit an answer, they receive immediate feedback. Teachers can track student progress and understanding, review their students' solutions for each problem, and select student solutions for classroom discourse.

Magma has a bank of pre-loaded problems aligned to K-12 state standards nationwide, as well as test-preparation questions from most state tests. Additionally, teachers can create problems tailored to their students and upload them via a PDF loader. District-level leaders can monitor progress and support grade-level teams or teachers with specific content.

HOW IS *Magma Math* IMPLEMENTED?

Magma Math complements any math curriculum materials as a resource for teachers to create and deliver assignments and/or assessments to their students. Teachers utilize Magma to monitor, select, and share student solutions with their classes, track their students' understanding, and help students develop a deep conceptual understanding of mathematics. Teachers create and share assignments with colleagues, and students have time both in class and/or at home to do assignments, using a variety of math tools, including pen, highlighter, digital manipulatives, and/or calculator or grapher. Teachers monitor their students' work via a heatmap and can select student work to share with the class, promoting productive mathematical discussion.

ISTE SEAL REVIEW

Product: Magma Math
Product Type: Curriculum
Organization: Radish Education, Inc.
Date of Award: September 2025

REVIEW METHODOLOGY

ISTE Seal reviews are conducted by a distinguished panel of experts in education, instruction, and technology. These experts utilize the most up-to-date data provided by the organization to conduct thorough evaluations of each solution. The evaluations focus on assessing the solution's performance in addressing specific elements outlined in the technical and pedagogical usability framework and the ISTE Standards.

To complete their rigorous evaluations, the reviewers utilize a comprehensive rating system, categorizing each solution as either "meets expectations" or "does not meet expectations." This assessment covers both the required and optional "Look Fors" outlined in the application. To ensure the validity and reliability of their results, the reviewers regularly engage in calibrations. Final review findings are then analyzed and combined, providing an overall score for alignment with each indicator.

At ISTE, we take great pride in our unwavering commitment to delivering results that schools and districts can have full confidence in. To be deemed education-ready learning solutions, products must meet the high standards in learning sciences, user experience and interface, accessibility, and content quality.

SCOPE OF REVIEW

Magma Math was reviewed against the technical, pedagogical usability framework and the ISTE Standards to determine whether **the solution is education-ready**. ISTE reviewers examined all evidence provided by the organization and interacted directly with the product.

REVIEW FINDINGS

ISTE STANDARDS: The ISTE Standards provide the competencies for learning, teaching, and leading in the digital age, providing a comprehensive roadmap for the effective use of technology in schools worldwide. Grounded in learning science research and based on practitioner experience, the ISTE Standards ensure that using technology for learning can create high-impact, sustainable, scalable, and equitable learning experiences for all learners.	
Empowered Learner 1.1.c Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	
Innovative Designer 1.4.a & 1.4.d Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	
Computational Thinker 1.5.c Students break problems into component parts, extract key information and develop descriptive models to understand complex systems or facilitate problem-solving.	
Creative Communicator 1.6.a Students choose the appropriate platforms and digital tools for meeting the desired objectives of their creation or communication.	
FEEDBACK	**OUTCOME**
• The platform delivers feedback through multiple channels, providing both automated responses and personalized guidance to enhance student learning. • Digital manipulatives integrate seamlessly with drawing, writing, and graphing tools, enabling diverse solution approaches. • Students develop mathematical reasoning through abstract and quantitative thinking as they make sense of problems using their own approaches and understanding.	

• Tool selection is student-driven, as the platform offers various problem-solving resources, including a pen, highlighter, digital manipulatives, calculator, and graphing tool, empowering learners to choose the appropriate methods for their mathematical work.	

DIMENSION 1: USER INTERFACE AND AGENCY

Definition: The design of the product interface and user experience helps teachers quickly and reliably achieve instructional goals. This dimension includes features related to interface design, learnability, navigation, maximizing time on task, control over actions, and general usability.

FEEDBACK	OUTCOME
• Users can log in easily through the platform using Single Sign-On (SSO), such as Google, Clever, or a QR code. • Navigation flows seamlessly between screens, assignments, and feedback through intuitive dropdown filtering and clear left panel organization. • Consistent element placement and clean layout design ensure assignment creation tools and student data remain easily accessible and quick to use. • Real-time monitoring capabilities allow educators to observe student work in progress and dynamically update assignment content for immediate release to students. • A comprehensive support ecosystem includes in-app chat, a searchable resource library, and Magma Academy, addressing both technical assistance and pedagogical guidance. • A list of interoperable products appears prominently on sign-in pages and teacher guides, and publicly accessible privacy policies are linked throughout the platform.	

Dimension 2: Learning Design

Definition: The product has features that exhibit and promote design and customization of learning episodes in ways that align with research-based best practices, including those rooted in the learning sciences.

FEEDBACK	OUTCOME
• Three distinct rigor levels correspond to Depth of Knowledge frameworks, allowing educators to customize both problem quantity and cognitive complexity for each assignment. • Multiple attempt opportunities for students provide immediate feedback loops and require demonstrated understanding before advancing to subsequent problems. • Extensive customization options for educators include mild to complex problem variations, personalized problem creation, and individualized student assignments for authentic differentiation. • Concrete-to-abstract progression supports student learning through visual problem-solving before advancing to abstract concepts, while digital manipulatives enable hands-on exploration, and teacher-created real-world problems connect to school and community contexts.	

Dimension 3: Digital Pedagogy

Definition: The product is designed to support the development of digital age learning skills, capacities and knowledge. This dimension focuses on how technology can help students and teachers experience the best possible learning experiences, including the social and learning affordances that digital educational products uniquely offer.

FEEDBACK	OUTCOME
• Students must show their work in the form of diagrams, models, or other methods before submitting their answers.	

• The foundation of the student workflow is Iteration and collaboration. • The platform supports students in developing, discussing, and refining their solution strategies through collaborative partnerships and iterative revision processes.	
DIMENSION 4: INCLUSIVITY **Definition: The product helps teachers provide learning experiences that are relevant to students of many cultures, backgrounds, and abilities, and support learner motivation and agency in the learning process. The product meets current guidelines around accessibility, and supports a positive classroom culture.**	
FEEDBACK	**OUTCOME**
• Diverse representation appears throughout illustrations, showcasing various races, genders, ethnicities, body sizes, and abilities in mathematical contexts. • Internal content creation guidelines ensure inclusive, authentic scenarios by eliminating harmful stereotypes while incorporating diverse representations, real-world data, and age-appropriate social issues. • The platform meets levels A and AA of the WCAG Accessibility requirements, featuring text-to-speech functionality in English and 120 additional languages with 40 spoken options, plus adjustable text sizing for enhanced readability.	
DIMENSION 5: ASSESSMENT AND DATA **Definition: The product uses formative assessments – learning experiences that help make visible what students know and don't yet know – to generate data that inform teachers about student knowledge and skill gaps, and provide students assessment feedback that is specific, actionable, and constructive. As such, it guides teachers' instructional decisions and students' learning journeys.**	
FEEDBACK	**OUTCOME**

• Standards-aligned formative assessments are embedded throughout every unit, providing educators with clear visibility into what students understand and where they require additional support. • The platform offers a variety of question formats, including multiple-choice, multiple-select, and ordering options, while teachers can assign open-ended questions that require deeper analysis. • Immediate feedback to students indicates "correct" or "not quite" status, while an intelligent hint system provides progressive guidance to students requiring additional support. • A dashboard delivers student performance as per-problem and per-student analysis with standards-based strength and weakness breakdowns, multiple attempt tracking, and intuitive heatmap visualization for easy interpretation of learning patterns.	

CONCLUSION

Magma Math delivers a comprehensive supplemental mathematics learning platform that transforms how educators create standards-aligned assignments, monitor student thinking in real time, and make data-driven instructional decisions. The platform's strength lies in its ability to make mathematical thinking visible while providing meaningful support for diverse learners.

The platform's commitment to authentic mathematical practice creates a supportive learning environment that encourages mathematical risk-taking and conceptual development. The integration of digital manipulatives with traditional mathematical tools enables students to explore problems through multiple modalities while developing their problem-solving strategies. Magma Math's differentiation capabilities stand out through its three-tiered rigor system, which is aligned with Depth of Knowledge frameworks, and its extensive customization options for educators. The platform's real-time monitoring and solution-sharing features facilitate productive mathematical discourse by enabling teachers to select and showcase diverse student approaches.

The platform's inclusive design addresses diverse classroom needs through translation capabilities and WCAG accessibility compliance. Content ensures representative imagery and culturally responsive scenarios without stereotypes. This approach to inclusivity ensures that mathematical learning remains accessible and relevant for all students.

Magma Math's robust assessment ecosystem provides educators with actionable insights through formative assessments integrated throughout every unit. The combination of automated feedback, standards-based analysis, and comprehensive reporting tools supports individual student growth and broader instructional decision-making. Magma Math represents a valuable addition to any mathematics program focused on developing deep conceptual understanding and mathematical discourse.