



ISTE Seal Review Findings Report

Mathletics

2024



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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 *Mathletics*?

Mathletics is a dynamic web-based math program for students ages 5-16 that offers instant access to a vast array of digital activities designed to enhance practice, fluency, and critical thinking. The program's curriculum-aligned lessons and diverse rewards system empower students to excel. Mathletics covers everything from early learner numeracy to problem-solving and reasoning. Teachers benefit from its intuitive features, enabling them to assign activities, track progress, and review results effortlessly. With powerful formative assessment tools, including automated marking and detailed progress reports, Mathletics ensures students and educators a comprehensive and enjoyable learning journey.

HOW IS *Mathletics* IMPLEMENTED?

The platform is accessible anywhere through an online login. The ideal implementation of the program is as a supplemental math resource for less than an hour per week. It has simple tracking tools that make gathering student insights easier for educators, providing single-view reports highlighting students' strengths and struggles and offering meaningful insights. Parents appreciate the extension of learning at home with engaging activities that make learning mathematics enjoyable. Mathletics in the classroom engages and challenges students with gamified activities that blend extrinsic and intrinsic rewards, maintaining students' learning motivation and momentum. Comprehensive mathematics coverage and ease of use make the program a flexible tool to meet a school's unique challenges.



ISTE SEAL REVIEW

Product: Mathletics

Product Type: Curriculum

Organization: 3P Learning

Date of Award: June 2024

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

Mathletics 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.

Knowledge Constructor 1.3.d

Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.


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 tools for meeting the desired objectives of their creation or communication.




FEEDBACK	OUTCOME
<ul style="list-style-type: none"> • Students can document their progress on the digital workbook page, which allows them to post screenshots, upload voice recordings, or write. • Students have the opportunity to solve real-world issues through the platform's "Problem Solving and Reasoning" section. • In the digital workbook, students can break problems into steps, interpret and create graphs and charts, and use various tools to find solutions. • Students can use creativity to design an avatar to represent themselves and access graphing and other tools to solve problems. 	
<p>DIMENSION 1: USER INTERFACE AND AGENCY</p> <p>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.</p>	
FEEDBACK	OUTCOME





<ul style="list-style-type: none"> • The product is intuitive for educators, with clearly labeled buttons and pop-up instructions showing "how to" guidelines. • The login page is easy to find; users can log in through other apps or scan a QR code. • Teachers can access a generic student view or select a student profile to view how they see the content. • A Technical Support button at the top of the screen takes users to support documents, videos, and other chunked resources. 	
<p>DIMENSION 2: LEARNING DESIGN</p> <p>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.</p>	
<p style="text-align: center;">FEEDBACK</p>	<p style="text-align: center;">OUTCOME</p>
<ul style="list-style-type: none"> • Each assignment clearly states state or national standards and learning outcomes. The activities display the main topic and mathematical concepts for students. • Instruction videos are bite-sized, and the activities are age-appropriate. 	



<ul style="list-style-type: none"> • Self-assessment activities throughout the lessons allow students to check their understanding of math concepts. • Instructional videos use concrete examples to illustrate key points, and concrete math functions and visuals illustrate the concepts. 	
<p>DIMENSION 3: DIGITAL PEDAGOGY</p> <p>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.</p>	
<p style="text-align: center;">FEEDBACK</p>	<p style="text-align: center;">OUTCOME</p>
<ul style="list-style-type: none"> • The program presents students with real-life problems to solve through mathematical skills. • Students can use a scribble board to take notes. 	
<p>DIMENSION 4: INCLUSIVITY</p> <p>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.</p>	



FEEDBACK	OUTCOME
<ul style="list-style-type: none"> • The student workbooks include many examples of different cultures and people without relying on stereotypes. • The avatar maker allows students to create a representation of themselves. • Videos include speed control and closed captioning in English and other world languages, and the platform features a high-contrast design. 	
<p>DIMENSION 5: ASSESSMENT AND DATA</p> <p>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.</p>	
FEEDBACK	OUTCOME
<ul style="list-style-type: none"> • Activities include both formative and summative assessments that align with learning objectives. • The platform offers a variety of assessment options, including fill-in-the-blank, drag-and-drop, and free response. • Within "Assign and Review," "Results," and "Reports," teachers can view results by groups or individual 	



students. They can also configure the results display using filters embedded in these pages.

- Student analytics include information like time online and points earned.

CONCLUSION

Mathletics offers a comprehensive mathematics program with thousands of activities for practice, fluency, and critical thinking. It enhances students' math skills through engaging, personalized learning experiences with curriculum-aligned activities to keep them motivated and on track. The program provides various rewards and incentives to empower students through gamification and differentiation. The product is highly intuitive for educators, featuring a user-friendly teacher login page with clearly defined buttons and pop-up instructions. Teachers can easily access "how-to" guidelines, video tutorials, and student view functions.

Teachers can easily differentiate for every learner, and students benefit from grade-appropriate chunking and seamless differentiation, which helps them progress through standards-based activities. Concise, age-appropriate instructional videos use concrete examples and visuals to illustrate important points. Students solve real-life problems using mathematical skills. The content features a variety of diverse, non-stereotypical images, especially in workbooks for younger grades. The product supports multiple languages, high contrast design, and various assessment options like fill-in-the-blank, drag-and-drop, and free response. Students can submit work in different formats and track their progress using features like automated feedback and digital workbooks. Additionally, the platform provides comprehensive analytics and reporting tools for teachers, ensuring a thorough and engaging learning experience for students.