ISTE Seal Review Findings Report

IT Specialist Computational Thinking

2025

TABLE OF CONTENTS

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 *IT Specialist Computational Thinking*?

The IT Specialist Computational Thinking certification validates foundational computational thinking skills essential for problem-solving in technology-enhanced environments. The certification assessment evaluates students' abilities to decompose complex problems, collect and analyze data, recognize patterns, and develop algorithmic solutions. The LearnKey IT Specialist Computational Thinking course provides comprehensive preparation materials designed to align with the certification exam objectives. This preparatory course includes instructional content, practice activities, and a practice exam that delivers targeted feedback to help candidates identify areas requiring additional study.

HOW IS *IT Specialist Computational Thinking* IMPLEMENTED?

Students progress through the preparatory course materials and complete practice assessments to develop proficiency in computational thinking concepts before attempting the certification exam. The implementation follows a structured approach where learners engage with course content, utilize practice exams for skill assessment, and receive detailed feedback on their performance. Upon completion of the preparatory materials, candidates take the official certification exam to validate their computational thinking competencies.

ISTE SEAL REVIEW

Product: IT Specialist Computational Thinking
Product Type: Assessment Tool
Organization: Certiport, Pearson Vue
Date of Award: August 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

IT Specialist Computational Thinking 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

Computational Thinker 1.5.a
Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.

Computational Thinker 1.5.b
Students collect data or identify relevant data sets, use digital tools to analyze them and represent data in various ways to facilitate problem-solving and decision-making.

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.

Computational Thinker 1.5.d
Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

FEEDBACK	OUTCOME
- Multiple opportunities throughout the six domains in the course enable students to identify and create algorithms while using computational thinking to explore solutions. - Students collect or identify relevant data sets and represent the data in various ways to support problem-solving and decision-making. - Problem-solving within the content necessitates breaking challenges into component parts, extracting key information, and developing descriptive models to understand complex systems.	✓

• Algorithmic thinking applications guide users in developing and testing sequential steps for creating automated solutions.	

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
• The product enhances workflow by enabling teachers to track student progress and proficiency as they develop computational thinking skills and prepare for the certification exam. • An introductory video and walkthrough of basic functionality create an intuitive onboarding experience for first-time users. • Straightforward navigation features a consistently accessible menu on the left side, with the course organized into domains that include dropdown menus for accessing detailed content. • Comprehensive support resources are available in the "Help" section, organized by category, and feature search functionality, as well as support ticket submission capabilities.	✓

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

Feedback	Outcome
• Clear articulation of learning outcomes establishes explicit connections between objectives, content, and activities throughout the modules. • The content, organized into domains, creates appropriately sized learning chunks that facilitate comprehension and retention. • Diverse presentation methods, including videos, flashcards, and memory games, reinforce content through multiple modalities appropriate for the target audience. • Teachers can select, filter, and share content with students based on instructional needs.	✓

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
• Authentic data collection opportunities enable students to gather information from relevant sources and create original works through project-based activities. • Structured learning episodes guide students through problem definition and decomposition processes, with workbook activities requiring detailed step descriptions. • Activities require students to find information within the application, and interface elements help students reference and describe the information they use. • Learning activities employ a structured approach to solution design, guiding learners toward strategic problem-solving methodologies.	✓

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
• Universal access features include closed captioning on all video content and adjustable playback speed controls. • High contrast design elements utilize white text on dark grey backgrounds for enhanced readability and visual accessibility.	✔

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
• Comprehensive formative assessments span all six domains, beginning with pre-assessments that clearly align with domain-specific learning objectives. • Varied assessment formats include multiple-choice questions, memory games, and flashcards. • Immediate feedback addresses incorrect responses, while post-assessment analysis identifies individual strengths and areas for growth. • Detailed progress monitoring enables teachers to view individual student mastery and class-level performance across all course learning objectives.	✔

CONCLUSION

The IT Specialist Computational Thinking certification and preparatory course provide a comprehensive learning environment for developing and validating essential problem-solving skills through structured computational thinking activities. Students master the ability to decompose complex problems, collect and analyze data, identify patterns, and apply algorithmic thinking to create automated solutions. The preparatory course features targeted practice assessments, while the official certification exam provides comprehensive performance analysis, highlighting strengths and areas for improvement across key domains of computational thinking.

The platform demonstrates strong educational design through its intuitive user interface, clear learning objectives, and flexible content organization that supports diverse instructional approaches. Interactive learning episodes incorporate authentic data collection opportunities and structured problem-solving methodologies that guide students toward developing strategic solutions. Multiple assessment formats, including formative evaluations and immediate feedback mechanisms, enable teachers to monitor individual and class-level progress while providing students with actionable insights for continued growth.

The comprehensive integration of learning, practice, and assessment creates a cohesive educational experience that prepares students for professional certification. Straightforward navigation, varied content presentation methods, and robust support resources establish an accessible learning environment where students can successfully develop computational thinking competencies and demonstrate their mastery through meaningful assessment opportunities.