ISTE SEAL OF ALIGNMENT REVIEW FINDINGS REPORT

Certiport/Pearson VUE

IC3 Digital Literacy Global Standard 6

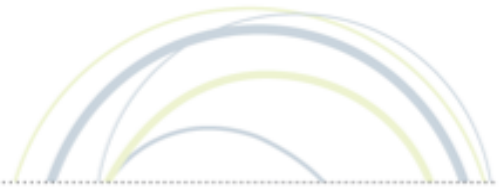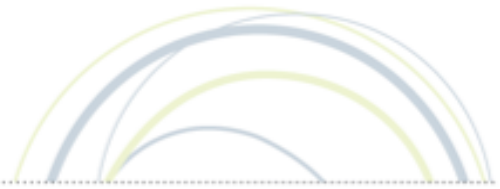March 2021

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ABOUT

ABOUT ISTE

The International Society for Technology in Education (ISTE) is the premier nonprofit membership organization serving educators and education leaders. ISTE is committed to empowering connected learners in a connected world and serves more than 100,000 education stakeholders throughout the world.

As the creator and steward of the definitive education technology standards, our mission is to empower learners to nourish in a connected world by cultivating a passionate professional learning community, linking educators and partners, leveraging knowledge and expertise, advocating for strategic policies, and continually improving learning and teaching.

ISTE SEAL OF ALIGNMENT

Resources and products designed with the ISTE Standards in mind are choosing to demonstrate their commitment to support critical digital age learning skills and knowledge. Regardless of a solution's intended grade level, purpose or content area, by addressing the ISTE Standards and earning a Seal of Alignment, a solution is shown to consciously, purposefully and meaningfully support best practices for digital age teaching and learning.

ISTE considers a solution aligned to the ISTE Standards only after an extensive review conducted by trained ISTE Seal of Alignment reviewers, and it has been determined to meet all critical elements of a particular standard indicator in accordance with specific review criteria.

By earning a Seal of Alignment, ISTE verifies that this product:
- Promotes critical technology skills
- Supports the use of technology in appropriate ways
- Contributes to the pedagogically robust use of technology for teaching and learning
- Aligns to the ISTE Standards in specific ways as described in the review finding report
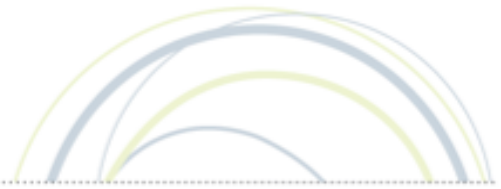
RESOURCE DESCRIPTION

WHAT IS IC3 DIGITAL LITERACY GLOBAL STANDARD 6?

Certiport's Internet and Computing Core Certification (IC3) Global Standard 6 (GS6) Assessment consists of three levels of increasing complexity. In addition to the exams, Certiport has created documentation which describes the full list of objectives cross referenced with the ISTE Standards for Students and all items for each of the three levels.
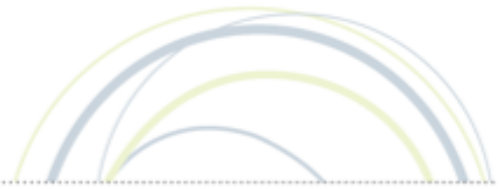
The assessments are administered online. Test takers have a limited amount of time (around 50 minutes each for 40-50 test items) to complete each of the three levels. The test format includes multiple choice and matching items. Many of the multiple choice items require choosing all that apply, thus requiring careful consideration of each response option. The performance items involve the use of simulations of various software environments that have an authentic look and feel and allow multiple paths for completion of a task (e.g. menu options, keyboard shortcuts).

The IC3 Assessment uses a scaffolded approach to address the ISTE Student Standards. The tests at all three levels address each of ISTE's standards, with the indicators being distributed across the three levels. Thus, the students are engaged with the standards on three distinct occasions. Even more important, the students are engaged with the standards as a whole and experience the connections between the standards.

The tests at the three levels embody a number of high quality assessment strategies suited to the content they address with a mix of items appropriate to various kinds of knowledge and skills. While the threshold of correct answers required to pass the individual modules is just over 50 percent, the number and type of answers required in the whole suite were sufficient to ensure coverage of knowledge and skills that were acceptable.

Items related to multiple devices such as mobile hardware, web-based software and social networking applications appear, in addition to several items related to adaptive technologies.

While Certiport awards completion certificates for each level, IC3 Certification is awarded only when all three levels have been completed successfully. Thus, the IC3 GS6 assessment suite was submitted for ISTE review as a whole. ISTE Reviewers considered the scope, depth and quality of the knowledge and skills assessed in the IC3 GS6 suite.

HOW IS IC3 DIGITAL LITERACY GLOBAL STANDARD 6 IMPLEMENTED?

Each of the three levels has its own test of 40 - 50 items, and each test has a 50 minute maximum time limit. There is a minimum passing score for each test. Respondents may save items for review later on in taking the test. An attempt must be submitted by the end of the time allotted. Immediate feedback report is provided after submission indicating items correct and incorrect and whether the attempt is passing or failing. A passing score is a scaled score of 700 or greater.
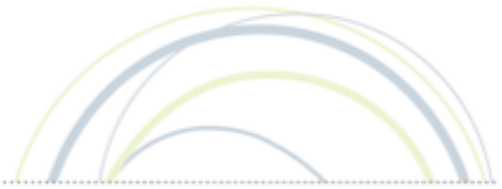
ISTE SEAL OF ALIGNMENT REVIEW

Product: IC3 Digital Literacy Global Standard 6
Organization: Certiport/Pearson VUE
Date of Award: March 2021

REVIEW METHODOLOGY

ISTE Seal of Alignment reviews are conducted by a panel of education and instructional experts. Reviewers use data collected both separately and collectively to determine how a solution addresses specific elements described in each of the indicators of the ISTE Standards. Special instruments are used by reviewers to collect data on potential alignment across all resource materials. Alignment is determined based on the extent to which all or some of specific elements are addressed within the materials. Reviewers conduct regular calibrations to assure the validity and reliability of the results and final review findings are combined for an overall score for alignment on each individual indicator.

During the review process for IC3 Digital Literacy Global Standard 6, reviewers:
- Collected data on when and how each activity addressed specific skills and knowledge described in the ISTE Standards for Standards at either a foundational or applied level
- Compiled findings to determine overall alignment across all ISTE Student standards and indicators.
- Used aggregate findings to form the basis of the overall alignment results.

SCOPE OF REVIEW

IC3 Digital Literacy Global Standard 6 was reviewed for alignment against the ISTE Standards for Students. ISTE Reviewers examined all test items, test background materials, and a crosswalk provided by the vendor aligning the test objectives with the ISTE standards.
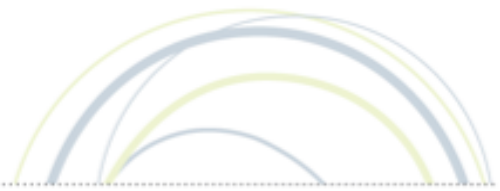
REVIEW FINDINGS

The ISTE Standards can be aligned at the following levels:

- Foundational - Resources and activities aligned at the *foundational* level primarily focus on skills and knowledge that facilitate skill acquisition to eventually meet ISTE Standard indicators.
- Applied – Resources and activities aligned at the *applied* level primarily focus on practical, real-world, and/or relevant opportunities to practice the skills and knowledge learned in the curriculum.

IC3 Digital Literacy Global Standard 6 was found to align to the ISTE Standards for Students in the following areas:
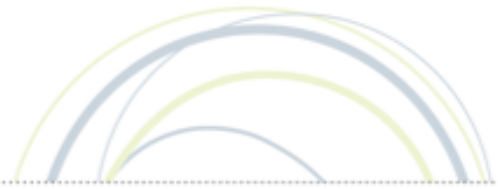
ISTE STANDARDS FOR STUDENTS

	Standard 1 Empowered Learner	Standard 2 Digital Citizen	Standard 3 Knowledge Constructor	Standard 4 Collaborator	Standard 5 Innovative Designer	Standard 6 Computational Thinker	Standard 7 Creative Communicator
Indicator A	◼	◼	◼	◼	◼	◼	◼
Indicator B	◼	◼	◼	◼	◼	◼	◼
Indicator C	◼	◼	◼	◼	◻	◼	◼
Indicator D	◼	◼	◼	◼	◼	◼	◼

Foundational resources and activities focus primarily on knowledge that facilitates skills acquisition to eventually meet ISTE Standards indicators.
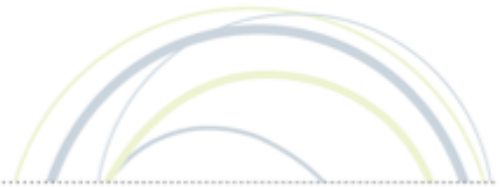
Applied resources and activities focus primarily on practical, real-world and/or relevant opportunities to practice the skills and knowledge learned in the curriculum.
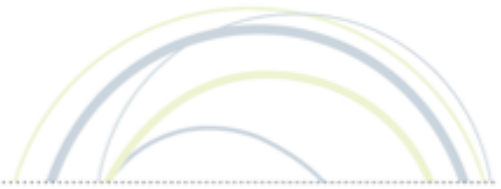
IC3 Digital Literacy Global Standard 6 was found to address the ISTE Standards for Students in the following ways:
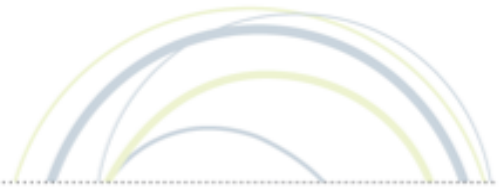
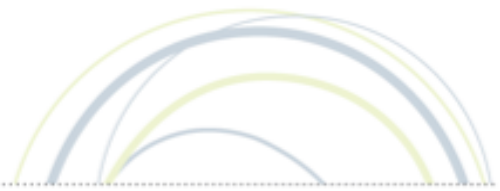| ISTE STANDARD	FOUNDATIONAL FINDING STATEMENT
1. Empowered Learner. Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.	
1.a. Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	One or more objectives/test items address how to leverage/apply tools to achieve learning goals.
1.b. Build networks and customize their learning environments in ways that support the learning process.	One or more objectives/test items address how to leverage/apply tools to customize learning environments.
1.c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	One or more objectives/test items address seeking feedback and demonstrating learning in a variety of ways.
1.d. Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.	One or more objectives/test items address technology operations and troubleshooting.

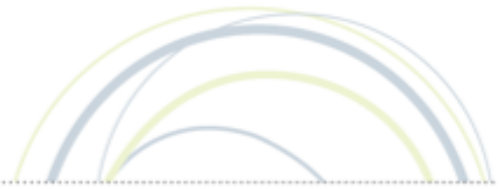|	
2. Digital Citizen. Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.	
2.a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	One or more objectives/test items address seeking feedback and demonstrating learning in a variety of ways.
2.b. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	One or more objectives/test items address safe and ethical behavior including social interactions.
2.c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	One or more objectives/test items address intellectual property, copyright, etc.
2.d. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.	One or more objectives/test items address digital privacy and security.
3. Knowledge Constructor. Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.	
3.a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	One or more objectives/test items address research strategies.

|	
3.b. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	One or more objectives/test items address validating resources.
3.c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.	One or more objectives/test items address developing and curating a set of resources.
3.d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	One or more objectives/test items use real life situations in defining and solving questions and problems.
4. Innovative Designer. Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.	
4.a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	The crosswalk document has an objective for design process, Level 3, 4.6.
4.b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	One or more objectives/test items address planning managing a design process.
4.c. Develop, test and refine prototypes as part of a cyclical design process.	One or more objectives/test items address a cyclical design process.

4.d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	One or more objectives/test items address ambiguity in open ended problems.
5. Computational Thinker. Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.	
5.a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	One or more objectives/test items address problem definition.
5.b. 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.	One or more objectives/test items address appropriate and multiple forms for representing data sets.
5.c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	
5.d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	One or more objectives/test items address appropriate and multiple forms for representing data sets.

6. Creative Communicator. Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.	
6.a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	One or more objectives/test items address identifying technology tools matching the need.
6.b. Create original works or responsibly repurpose or remix digital resources into new creations.	One or more objectives/test items address creating and repurposing resources.
6.c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	One or more objectives/test items address creating digital objects for clear communication.
6.d. Publish or present content that customizes the message and medium for their intended audiences.	One or more objectives/test items address customizing content for audiences.
7. Global Collaborator. Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.	
7.a. Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.	One or more objectives/test items address diverse audiences.
7.b. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	One or more objectives/test items address collaborating with various partners.

7.c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	One or more objectives/test items address working with teams and the individual skills needed.
7.d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	One or more objectives/test items address solution seeking for real life problems.
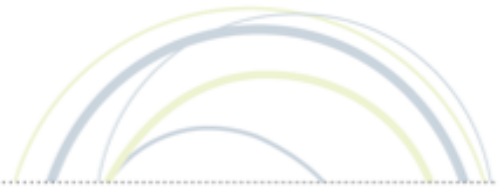
CONCLUSION

The IC3 GS6 Assessment was found to align to the ISTE standards on a Foundational level because it is designed primarily to assess the knowledge and understanding users have of the technology tools and strategies, versus how well respondents use technology to directly complete tasks. The IC3 Assessment uses a scaffolded approach to address the ISTE Student Standards. All seven standards are distributed across the three exams with varying degrees of coverage. Exam three was found to have the most coverage. Thus, particularly for Standards One and Two, the respondents are engaged with the standards on multiple exams. Even more important, the respondents are engaged with the standards as a whole and experience the connections between the standards. The exams at the three levels embody a number of high quality assessment strategies suited to the content they address with a mix of items appropriate to various kinds of knowledge and skills.

As discovered in the Review findings, not every standard received the same emphasis. For example, the deliberate design process of Standard Four and Standard Five's formulating problem definitions and understanding complex systems for decision making were light in their emphasis. However, the number and type of answers required across exams one through three was sufficient to ensure coverage of knowledge and skills that was acceptable for a Foundational rating.

Certiport has excelled in integrating the language of the standards into the exam objectives and items, which provided clear alignment of items to the standards. This will aid students in seeing the connection between the assessment and the ISTE Standards for Students.

Considering the scope, depth, and quality of the knowledge and skills assessed in the IC3 GS6 suite, ISTE Reviewers found significant alignment to the ISTE Standards for Students at the Foundational level.