ISTE SEAL OF ALIGNMENT REVIEW FINDINGS REPORT

TechFactors Inc.

ICTopia

March 2022

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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
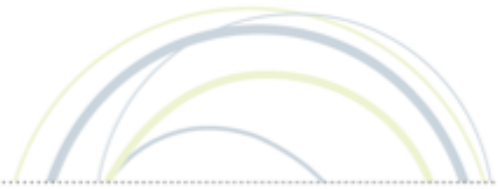
RESOURCE DESCRIPTION

WHAT IS ICTOPIA?

ICTopia is a catalog of 4 courses offering students an in-depth introduction and foundational knowledge in distinct areas of ICT workforce development:

- **Desktop Productivity** - This course focuses on the general suite of office software including word processors, spreadsheets, presentation, electronic mail, and the Internet for research and data gathering. The general approach is to emphasize the interoperability of the software being taught.
- **Programming and Databases** - Basic Java concepts and principles are the focus of this course. In addition, students explore the various concepts and models necessary to store, manipulate and handle data using MariaDB.
- **Project Management and Video Production** - In this course, the students learn effective management of a project. The content includes Web page development as an essential partner to video production.
- **Web Scripting** - Students are taught to create their own webpages using Notepad, the basic text editor of the Windows® operating system to ensure that the students learn the basic structure and syntax of HTML. Students then learn how to create client-side web applications using JavaScript.

HOW IS ICTOPIA IMPLEMENTED?

Each course has a hard-copy textbook that guides students through the concepts and activities. Students may work from the textbook or through the online platform. The content in the textbook is mirrored on the learning management system.

If the course is delivered through the online platform/learning management system, all tasks may be assigned and turned in through the platform. ICTopia tasks require access to a computer with desktop productivity software. All tasks may be completed using the applications included in the Windows operating system applications.

The use of built-in software available makes these courses accessible to even those schools where Internet access is not available.
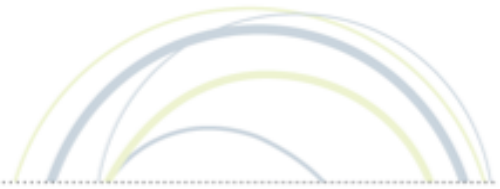
ISTE SEAL OF ALIGNMENT REVIEW

Product: ICTopia
**Organization:** TechFactors Inc.
Date of Award: March 2022

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.

SCOPE OF REVIEW

ICTopia was reviewed for alignment against the ISTE Standards for Students. ISTE reviewers examined the student facing materials, both hardcopy and through the learning management system. Teachers' Guides were also consulted to understand the guidance the teacher is given regarding learning outcomes, assignments, questioning techniques, and assessments.
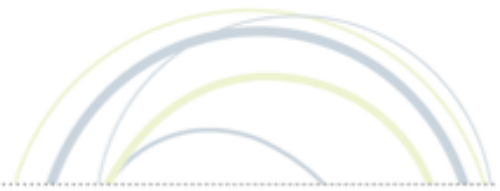
REVIEW FINDINGS

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.

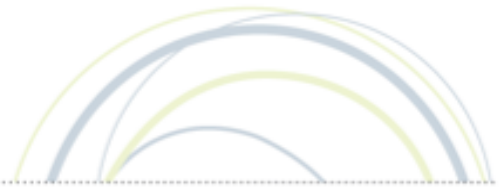ICTopia was found to align to the ISTE Standards for Students in the following areas:

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	Applied	Applied	Applied	Foundational	Applied	Foundational	Applied
Indicator B	Applied	Foundational	Applied	Foundational	Foundational	Foundational	Foundational
Indicator C	Applied	Foundational	Applied	Foundational	Foundational	Applied	Foundational
Indicator D	Foundational	Applied	Applied	Foundational	Foundational	Foundational	Applied

Foundational resources and activities focus primarily on knowledge that facilitates skills acquisition to eventually meet ISTE Standards indicators.
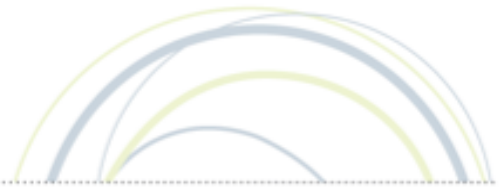
Applied resources and activities focus primarily on practical, real-world and/or relevant opportunities to practice the skills and knowledge learned in the curriculum.
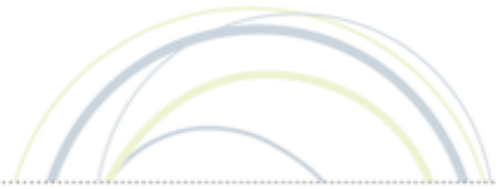
ICTopia was found to address the ISTE Standards for Students in the following ways:
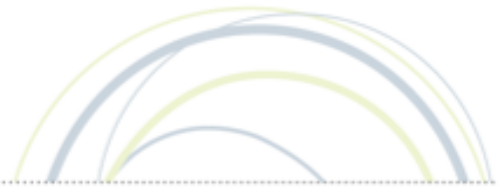
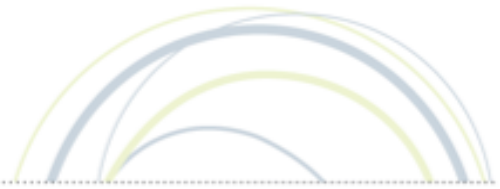| ISTE STANDARD	FOUNDATIONAL FINDING STATEMENT
1. Empowered Learner. Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.	
1.a. Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	
1.b. Build networks and customize their learning environments in ways that support the learning process.	
1.c. Use technology to seek feedback that informs and improves their practice and to demonstrate their 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.	The ICTopia courses are focused on introducing and instructing students to fundamental concepts and skills in productivity software, web design, computer fundamentals. It is teacher directed. Each lesson has a prescribed performance task that asks students to demonstrate their knowledge and skill.

| **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.	
2.b. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	Internet Etiquette is referenced to refer to the Dos and Don'ts of communication and presentation.
2.c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	Where appropriate, citing sources is referenced.
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.	
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.	
3.b. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other 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.	
3.d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	

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.	Desktop publishing, presentation, web scripting courses model the design process when creating artifacts.
4.b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	The interoperability of the software applications is included as a way to model making the choice of available tools to achieve the design goal.
4.c. Develop, test and refine prototypes as part of a cyclical design process.	Design choices are evaluated and revised using a given rubric.
4.d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	Higher grade courses challenge students to modify a previous code to meet specific (given) criteria.

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.	
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.	Project Management course explores setting metrics for determining measurable outcomes. Web scripting includes using web visits; Spreadsheets covers data visualization options.
5.c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	Course content presents guided steps for assigned artifacts as a system of component parts and presents models, both in the hard copy text and in the platform.
5.d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	The courses are designed to build on the concept of automation and how tools available within the software can be leveraged to automate user responses.
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.	Each of the 4 courses includes guidance for choosing the appropriate format, included elements, and maximizing the visual presentation.
6.b. Create original works or responsibly repurpose or remix digital resources into new creations.	The artifacts created are created based on given criteria and resources, but do include some options for student choice.
6.c. Communicate complex ideas clearly and effectively by creating or using a variety of	

digital objects such as visualizations, models or simulations.	
6.d. Publish or present content that customizes the message and medium for their intended audiences.	Students are encouraged to share their content in a number of ways depending on resources available.
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.	
7.b. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	Courses guide students in working with peers to provide feedback..
7.c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	Project management includes working in teams as a model of the roles and dependencies inherent in any project.
7.d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	
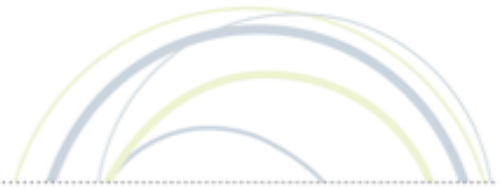
CONCLUSION

ICTopia provides middle years students with a deeper dive into the specific ICT area included in this catalog. Students are guided through the steps to learn the introductory skills in each of the topic categories. Students completing these courses would have a strong foundation to complete their own artifacts independently, making these courses a valuable starting point.