International Society for Technology in Education

ISTE SEAL OF ALIGNMENT REVIEW FINDINGS REPORT

Digital Media Academy

DECEMBER 2019

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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 THE DIGITAL MEDIA ACADEMY CERTIFIED SCHOOLS PROGRAM?

The Digital Media Academy Certified Schools program offers online courses for students in Pre-K through 9th grade and beyond. All the course topics within the Digital Media Academy library include significant technological components and cover a wide range of topics including coding, entrepreneurship, game design, journalism and photography. Each course consists of various modules and within each module are several lessons.

The illustrative examples used in the courses are focused on real world issues and problems and the projects assigned involve hands-on activities and products. Teacher materials include suggestions for ways to integrate the course topics and activities into existing curricula, and correlations to a variety of educational standards are also suggested.

HOW IS THE DIGITAL MEDIA ACADEMY CERTIFIED SCHOOLS PROGRAM IMPLEMENTED?

Courses usually begin with an introduction to the general topic presented via text, graphics and short videos. These are followed by the introduction of a problem or issue to be investigated and a step-wise approach to understanding and exploring the problem/issue. Short quizzes are interspersed to provide formative assessments for students and to inform teachers about the students' progress. Quiz feedback is automated for immediate reinforcement. Courses typically end with a project to be completed. Some include additional supplemental materials or projects.

The courses are "flex" courses meaning that they can be completed by students in a self-guided way or facilitated by teachers as part of a classroom learning experience. In facilitated mode, students have the opportunity to interact with other students and with the teacher(s). Each course is accompanied by a set of teacher resources including course overviews, questions and assignments for each module, student assessment suggestions and rubrics along with estimated alignments to different learning standards.

ISTE SEAL OF ALIGNMENT REVIEW

Product: Digital Media Academy Certified Schools Program
Organization: Digital Media Academy
Date of Award: December 2019

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 the DMA Certified Schools program, reviewers:

- collected data on when and how each activity addressed specific skills and knowledge described in the ISTE Standards for Students 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

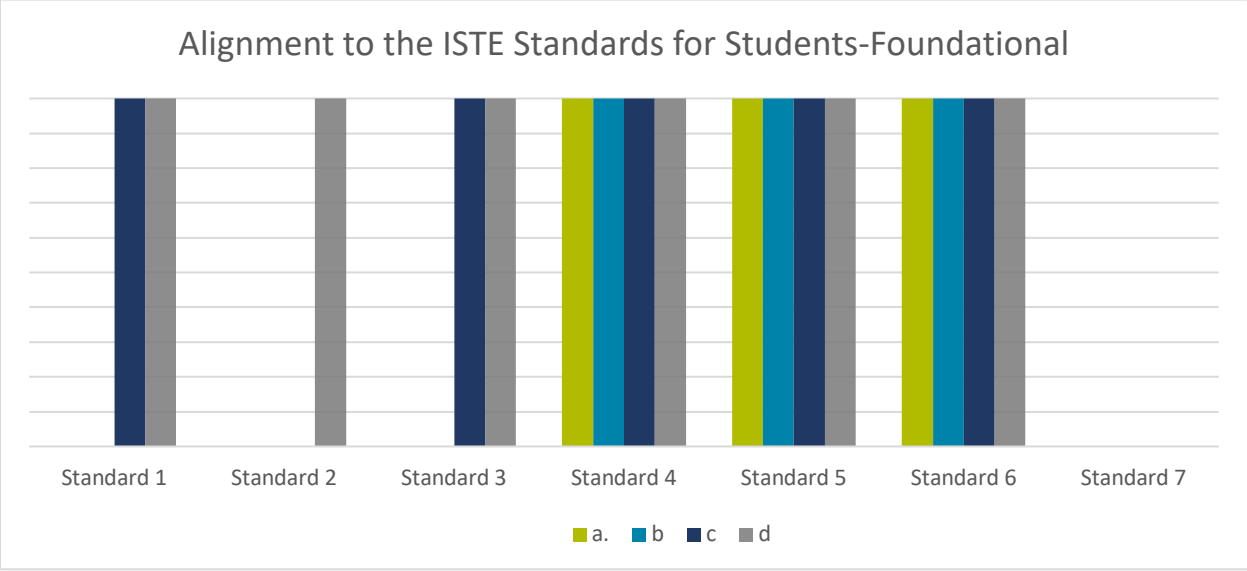
The ISTE team reviewed 30 content courses and two additional logistical courses (Implementation Roadmap and Curriculum Review) that provide overviews of the DMA Certified Schools program and implementation strategies. See Appendix A for a list of all the courses reviewed.

REVIEW FINDINGS

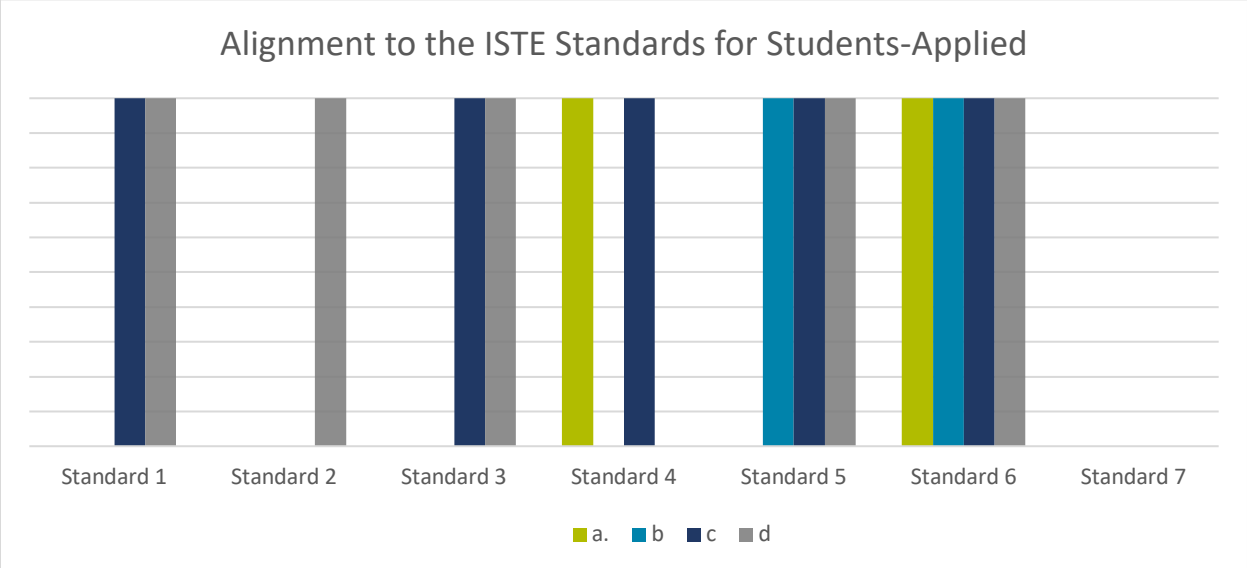
The DMA Certified Schools program addresses the ISTE Standards for Students in the following ways:

- 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

The DMA Certified Schools program was found to address the following standards and indicators of the ISTE Standards for Students at the *Foundational* level:



The DMA Certified Schools program was found to address the following standards and indicators of the ISTE Standards for Students at the Applied level:



ISTE Standard	Foundational Finding Statement	Applied Finding Statement
1. Empowered Learner		
1.c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	Students have the opportunity to seek feedback through questions and quizzes spread throughout the courses. They learn to demonstrate their learning of foundational concepts through interactive activities and projects as well.	In many of these courses, students demonstrate their learning using online tools and apps to create products such as slideshows, videos and computer programs, then request feedback. The LMS has an online portfolio where students post and share their work.
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	Several courses introduce early grade students to the fundamentals of technology operations. In addition, students must have a sound understanding of technology operations to navigate through these online courses. Students	Students select and work with a wide variety of current technologies. For example, students select the platform (blog, own website, word processor) to create a photo story or photo essay then choose a

knowledge to explore emerging technologies.	learn about a variety of emerging online technologies such as photo and video editing, painting, block coding, storyboarding and an app for creating animations.	social media platform to share their story. In the coding courses, students troubleshoot the software and coding environment to make their programs work.
2. Digital Citizen		
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.	In a number of courses about the internet, students learn how to manage their personal data to maintain privacy and security through course discussions and activities such as analyzing password strength, writing about their own digital identity and recognizing what personal information is gathered by social media sites.	Students apply what they have learned about digital identity and online data collection in projects such as identifying problems in their community that could be solved by using data collected by connected/smart devices and making a plan for solving them while respecting individual privacy. In another project, the students predict what ads they will see online in a 24-hour period based on their digital identity, collect the data then share the results in a graph or infographic.
3. Knowledge Constructor		
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.	In both design and coding courses students watch videos and read case studies about using database software, multimedia web tools and programming environments to assemble and synthesize components to create new objects and products.	Students demonstrate the ability to use tools such as database software, multimedia web tools, programming environments and design strategies to assemble and synthesize components to create new objects and products.
3.d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories	In exploring data literacy topics, students learn basic concepts from examples of real-world problems and issues such as the relationship between education	The final projects of a number of courses require students to use technology to create charts and graphs illustrating findings from

and pursuing answers and solutions.	and salary level, the use of data to influence thinking about political issues and the use of data to develop business models and marketing materials.	their research on real world projects such as the relationship between education and workplace salaries as well as the development of business models and marketing strategies, materials and presentations.
4. Innovative Designer		
4.a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	In multiple design-oriented and coding courses, students are shown examples of deliberate design processes needed to create graphic, video, game and computer program designs and to understand how they can be tested and implemented.	In multiple design-oriented and coding courses, students are guided through the steps of the deliberate design processes needed to create graphic, video, game and computer program design ideas. Students undertake small and larger scale projects in creating multi-media and software products that demonstrate their ability to use those processes creatively.
4.b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	Students learn to use a variety of software tools to outline stories, develop characters, create storyboards and write computer programs that involve constraints such as time, audience and resources as part of their decision making.	
4.c. Develop, test and refine prototypes as part of a cyclical design process.	Students learn to develop prototypes of games, apps, storyboards and graphic designs then collect feedback to improve their designs.	Students undertake a variety of projects in design and coding courses that involve developing prototypes of games, apps, storyboards and graphic designs then collect feedback to iterate and improve their designs.

4.d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	Students exhibit perseverance as they improve and add features to a basic story or digital product over multiple lessons. They also learn to work with open ended problems as they determine what to write about and how to design or create a game or app.	
5. Computational Thinker		
5.a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	Students learn how experts define complex problems and are introduced to technology-based solutions in a variety of real-world contexts.	
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.	Students gather data from online and real-world sources then use digital tools to analyze and display their findings.	The final projects of several courses involve students in the selection and analysis of relevant data. needed, for example, to create a machine learning program or to propose and market a model for a start-up business using charts, graphs and other presentation formats.
5.c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	Several courses that focus on Computational Thinking include detailed examples of problem decomposition, pattern recognition, data analysis and descriptive models of problems such as computer programming, game design and 3-D printing projects.	A number of courses that focus on Computational Thinking include projects that require students to engage in problem decomposition, pattern recognition, data analysis and descriptive models of problems.
5.d. Understand how automation works and use algorithmic thinking to develop a sequence of steps	Students are introduced to automation and algorithmic thinking through the use of pseudo-code, flow charts, and	Students apply automation and algorithmic thinking through the use of pseudo-code, flow charts, and

to create and test automated solutions.	block programming with Scratch and more advanced languages such as Python. They also learn to use foundational tools to help perform those tasks.	block programming with Scratch and coding in Python. The courses culminate in hands-on projects that demonstrate skills with concepts such as Boolean logic, loops, conditionals and input/output.
6. Creative Communicator		
6.a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	In courses focused on coding and design thinking, students learn about the process of choosing appropriate platforms and tools for addressing specific audiences through real world examples shown in video and case studies.	In a number of coding and design thinking courses, students are challenged to create products that communicate effectively with their audiences. These products require students to select graphic designs, game designs, online platforms and programming tools that accomplish their product goals.
6.b. Create original works or responsibly repurpose or remix digital resources into new creations.	Students learn underlying concepts and tools that can be used to create original or remixed works including storyboarding programs, idea generation and organization tools, animation software and programming environments. Examples of the complex nature of these processes are shown in detailed video presentations.	In many courses, students learn both the concepts and tools needed to design original or remixed works and undertake various projects that involve creating products such as storyboards, animation sequences, database outputs, software programs and web-related products.
6.c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	Students learn how to design and craft complex presentations including images, story boards, book covers, business models and presentations using a wide variety of tools including image manipulation, cartoon creation	Students undertake projects that require them to craft complex presentations including visualizations such as story boards and book covers as well as business models and computer simulations to

	and animation, video editing, and software programming.	communicate effectively to their target audiences.
6.d. Publish or present content that customizes the message and medium for their intended audiences.	Students learn to use online tools such as storyboards, and digital portfolios to present their creations and are shown how to revise their products before sharing.	Students identify the audience for their digital product, compose questions for the target audience, interview potential users of an app they are designing and use the information to refine their problem statement to suit the audience. Students select the platform (blog, website, word processor) to create a photo story or photo essay then select which social media platform to share their story and edit it to customize it to the intended audience.

CONCLUSION

The courses offered in the Digital Media Academy Certified Schools program are well-suited to enable students to understand how technology can be used to amplify their learning. One of the many strengths of the library of courses is that it includes courses designed for students from Pre-K to 9th grade (and above); and the topics, multi-media presentations, demonstrations, quizzes and projects are very effectively adapted to appeal to each target audience.

The extensive teacher resources materials that make the facilitated versions of the courses both richer and more challenging than the self-guided versions, are particularly helpful in the early grade courses where more facilitation is likely to be needed.

All in all, these courses are well designed for the intended audiences, clearly organized for easy navigation, involve hands-on activities, include real world projects and problems and are highly professional in presentation. This library of courses will be a valuable resource to educators interested in engaging students in the effective use of technology as an amplifier of learning.

APPENDIX A

Content Courses Reviewed:
Analyze Data using Python – A Beginning
App Designer Studio
Code, Computers and Carrots
Computer Science for Kids
Cool Computers
Crazy about Games
Daring Designs
Data Literacy in a Global Society
Design Challenges
Designing Play Spaces
Designing Urban Spaces
Don't Stand Still, Mate…Animate!
Encryption, Ciphers and Digital Detectives
Entrepreneurship Bootcamp
Explore the Internet
Fun with Robots
Game Designer Studio
Game Play and Coding
Graphic Designer Studio
Introduction to 3D Modeling in Tinkercad
Inventing and Reinventing Machines
Learn to Code with Scratch
Meet the Future: AI and Machine Learning
Mobile Journalism
Show and Tell: Script and Storyboard
The Power of Pictures
The Power of Pictures: Digital Illustrations
The Power of Pictures: Photography
Watched Cartoons? Why Not Create Your Own?
What Can You Do with Data?

Logistics Courses Reviewed:
Implementation Roadmap
Curriculum Overview