Hangzhou International School
杭州国际学校

Technology Standards

K-12

v.2

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HIS Student Technology Standards and Corresponding General Learning Targets

1. **Independence and Collaboration (Positive Behaviors and Approaches to Learning)**
   Students will be self-motivated and independent in finding digital tools to meet their needs. They will actively explore new platforms and develop their ability to use them, drawing from a wide range of self-help resources. Students will be economical in their selection of tools, taking advantage of free trials and open source software. Students will work collaboratively to upskill themselves and others, contributing to a collective pool of knowledge and skills within the school. Students will use digital platforms to improve their ability to manage their workload and to improve their productivity and accountability.

2. **Information Handling, Purpose, and Literacy (Effective Communication)**
   Students will be able to use technical vocabulary and specific phrasing and functions to improve the accuracy of their online searches. They will communicate effectively to a range of audiences demonstrating an ability to find, organize, and present information for a specific purpose. Students will select relevant and accurate information and discern between reliable and unreliable sources.

3. **Programming (Higher Level Thinking)**
   Students will be proficient in at least one computer programming language in order to customize applications. Students will be aware of the structure and functionality of programs and their limitations. They will use their understanding of logic and debugging to solve problems. Students will display perseverance and stamina to problem-solve and achieve success. They will think creatively and design new ways of approaching tasks.

4. **Digital Language and Literacy (A Solid Foundation of Knowledge)**
   Students will be able to navigate digital spaces efficiently and effectively, knowing how to use menus and predict the location of information. They will recognize how symbols, colors, and content are organized to achieve a purpose and employ these techniques in their own digital texts. Students will understand that different types of media are designed to convey specific messages to the viewer or reader.

5. **Digital Citizenship (International Mindedness and Community Appreciation)**
   Students will be responsible digital citizens. They will use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students will demonstrate positive behaviors throughout all digital interactions. They will understand the impact of their digital footprint. Students will take responsibility for the maintenance of their personal digital devices, avoiding malicious websites and downloads and ensuring adequate anti-malware protection is installed. They will maintain the school's standards of academic honesty and integrity.

2016

ISTE STANDARDS
FOR STUDENTS

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. Students:

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.
b. build networks and customize their learning environments in ways that support the learning process.
c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
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.

2. Digital Citizen

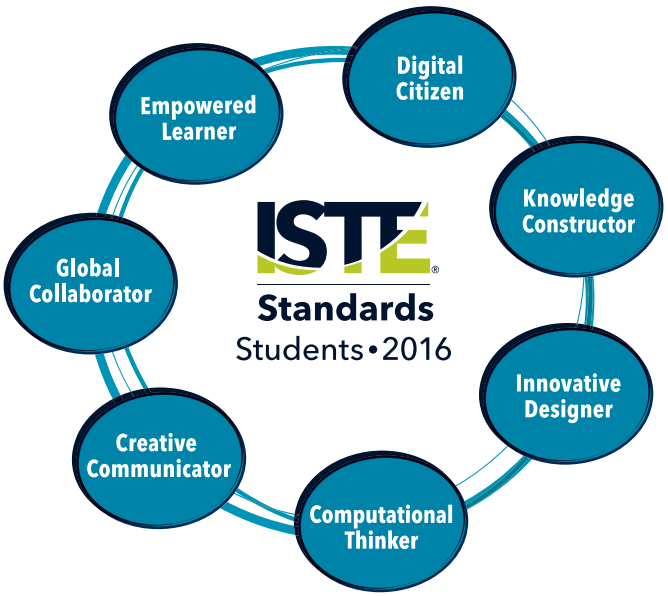
Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students:

a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.
b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
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. Students:

a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
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. Students:

a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
b. select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
c. develop, test and refine prototypes as part of a cyclical design process.
d. exhibit a tolerance for ambiguity, perseverance and the capacity to work with 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. Students:

a. formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.
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.
c. break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

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. Students:

a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
b. create original works or responsibly repurpose or remix digital resources into new creations.
c. communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.
d. publish or present content that customizes the message and medium for their intended 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. Students:

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.
b. use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
c. contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
d. explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Media Types

Media types are incorporated into learning activities in a spiraling manner vertically throughout grade levels

1. Images
2. Videos
3. Text (word processing, manipulate text in PowerPoint, create bibliography, references, table of contents)
4. 3D Models
5. Video and Animated Special Effects
6. Audio Media
7. Vector Graphics
8. Programming
9. Data
10. Database (data modeling, making applications with databases)
11. Creating Websites

Example Technology Skills by Grade Level

* incorporated into unit planning with spiraled media types across grade levels.

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Kindergarten					
	TBD	6. Creative Communicator	Make a story	1. Images 2. Videos 3. Text	PowerPoint or iMovie/Quicktime video, Green Screen
	TBD	3. Knowledge Constructor	Describe a picture	1. Images 3. Text	Storybird
	TBD	2. Digital Citizen	Learning how to protect your personal information and use computers and mobile phones safely.	1. Images 2. Videos	Hector's World
	TBD	5. Computational Thinker	Individual or partner programming and logic apps. Teacher taught programming lessons without computers or devices.	8. Programming	The Foos, Code.org, SAM Labs
	Celebrations	6. Creative Communicator	Unit (eg. Celebrations) sounds of presentation	6. Audio Media	PowerPoint
Grade 1					
	TBD	5.Computational Thinker 6. Creative Communicator	Collect Data and put into table, make graph	9. Data	Word
	TBD	5. Computational Thinker	Individual or partner app the Foos in the computer lab.	8. Programming	The Foos, Code.org, SAM Labs
	TBD	6. Creative Communicator	Creative storytelling	1. Images 3. Text	*The Story Kitchen*, Bruce Van Patter
	TBD	2. Digital Citizen 6. Creative Communicator 7. Global Collaborator	Use digital cameras to..	1. Images	

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 2					
	TBD	6.Creative Communicator	Record voice and edit text to create radio show	3. Text 6. Audio Media	
	TBD	6.Creative Communicator	Create shape poems and word banks	1. Images 3. Text	Wordclouds
	TBD		Typing		typingclub.com
	TBD	4. Innovative Designer 5. Computational Thinker	Programming	8. Programming	SAM Labs
Grade 3					
	TBD	6.Creative Communicator	Comic Book	1. Images 3. Text	Storyboard That
	TBD	1. Empowered Learner 4. Innovative Designer 6.Creative Communicator	Picture Books	1. Images 3. Text	PowerPoint
	TBD	4. Innovative Designer 6. Creative Communicator	Create an edited video with all elements included skillfully	1. Videos	IMovie
	TBD	6.Creative Communicator	Stop Animation	5. Video and Animated Special Effects	
	TBD		Typing		www.typing.com
	TBD	4. Innovative Designer 5. Computational Thinker	Programming	8. Programming	SAM Labs

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 4					
	TBD	6 .Creative Communicator	Video Editing/ Greenscreen Backgrounds	1. Video 5. Video and Animated Special Effects	Imovie
	TBD	1. Empowered Learner 2. Digital Citizen 6. Creative Communicator	Online Responsibilities Presentation	1. Images 2. Videos 3. Text 5. Video and Animated Special Effects	Student Choice
	TBD	1. Knowledge Constructor	Poetry Anthology	1. Images 3. Text	Story Bird
	TBD	7. Global Collaborator	Global Read Aloud	2. Video 3.Text 6. Audio Media	FlipGrid, Padlet
	TBD	7. Global Collaborator	Collaborating on Presentations	1. Images 3. Text	PowerPoint/ Microsoft Teams
	TBD		Typing		www.typing.com
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Remix and rework shot/recorded and found video and audio so that it conveys an entirely different emotion. Students learn about how media is manipulated to affect people's thoughts and feelings in a certain way. Often it can be for advertising and persuasion.	2. Videos 5. Video and Animated Special Effects 6. Audio Media	iMovie., Quicktime, online apps
	TBD	4. Innovative Designer 5. Computational Thinker	Programming	8. Programming	SAM Labs
	TBD	4. Innovative Designer 5. Computational Thinker	Tinkercad	3. 3D Models	Tinkercad

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 5					
	TBD	3. Knowledge Constructor	Typing and Recording voice	6. Audio Media	Typing.com, Voice recorder
	TBD	5. Computational Thinker	Creating Graphs	9. Data	Microsoft Excel
	TBD	6. Creative Communicator	Writing from different perspectives	5. Video and animated effects 6.Audio Media	Blabberize
	TBD	6. Creative Communicator	Adding voice over to videos	6. Audio Media	iMovie
	TBD	1.Empowered Learner 7. Global Collaborator	Creating Posters on a website	1. Images	Canva, Venngage, O365
	TBD	5. Computational Thinker	Programming		SAM Labs
	TBD	4. Innovative Designer 5. Computational Thinker	Tinkercad	3. 3D Models	Tinkercad
Grade 6					
	TBD	1. Empowered Learner 3. Knowledge Constructor	Demonstrate group presentations	1. Images 2. Videos 3. Text 5. Video and Animated Special Effects 6. Audio Media	SharePoint, presentation and software choice
	TBD	6. Creative Communicator	Apply different media types for understanding content	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 11. Creating Websites	IMovie, Final Cut Pro, Garage Band, Read and Write, Preview, Adobe

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 6	TBD	1. Empowered Learner 2. Knowledge Constructor	Students demonstrate computer use strategies	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	Office 365 Microsoft Office Internet Browser
	TBD	6. Creative Communicator	Create short films in groups	2. Videos 5. Video and Animated Special Effects 6. Audio Media	IMovie, FCP
	TBD	1. Empowered Learner	Integrate digital research strategies	3. Text 9. Data 10. Database	Destiny Databases
	TBD	6. Creative Communicator	Stop animation	5. Video and animated special effects	
Grade 7					
	TBD	3. Knowledge Constructor 7. Global Collaborator	Presentation not using PowerPoint	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media	All presentation software

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 7	TBD	3. Knowledge Constructor	Evaluate different media types	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	IMovie, Final Cut Pro, Garage Band, Read and Write, Preview, Adobe Canva
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Students teach computer use strategies	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	Office 365 Microsoft Office Internet Browser
	TBD	6. Creative Communicator 7. Global Collaborator	Create short films in groups and share on social media.	2. Videos 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media	IMovie, FCP, YouTube, YouKu
	TBD	3. Knowledge Constructor	Teach digital research strategies	3. Text 10. Database 11. Creating Websites	Destiny Databases
	TBD	6. Creative Communicator	Animated shorts	5. Video and animated Special Effects	After Effects or similar
	TBD	3. Knowledge Constructor	Media Literacy	2. Videos 6. Audio Media	

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 8					
	TBD	5. Computational Thinker	Collect scientific data.	9. Data	Vernier
	TBD	3. Knowledge Constructor 4. Innovative Designer 6. Creative Communicator 7. Global Collaborator	Community Project	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	Depends of scope of CP
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Lead technology use ASAs	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	Depends on scope of ASA
	TBD	3. Knowledge Constructor 4. Innovative Designer 6. Creative Communicator 7. Global Collaborator	Digital Campaigns	1. Images 2. Videos 3. Text 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 10. Database 11. Creating Websites	Social Media Platforms

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 8	TBD	1. Empowered Learner 6. Creative Communicator	Animated shorts	5. Video and animated special effects	After Effects or similar
	TBD	5. Computational Thinker	Use databases to search for information	3. Text 10. Database	Destiny Databases
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Presentations using video software	1. Images 2. Videos 5. Video and Animated Special Effects 6. Audio Media	Flipgrid, iMovie, QuickTime
Grade 9					
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Short films in groups shared and published	1. Images 2. Videos 5. Video and Animated Special Effects 6. Audio Media	iMovie, FCP, YouTube, YouKu
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Multi Media reflection presentation	1. Images 2. Videos 3. Text 5. Video and Animated Special Effects 6. Audio Media	iMovie, Final Cut Pro, Garage Band, Read and Write, Preview, Adobe Canva
	TBD	3. Knowledge Constructor	How to research in a subject area Wiki	3, 10, 11. Creating Websites	Wikispaces.com
	TBD	5. Computational Thinker		10. Database	Microsoft Access
		4. Innovative Designer		4. 3D Models	Autodesk
	TBD	6. Creative Communicator	Convert images into Vector graphics and use in a variety of ways	7. Vector Graphics	Affinity Designer https://medium.com/coding-artist/a-beginners-guide-to-vector-graphic-design-815cb1cb4d70 https://vectormagic.com/

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 10					
	TBD	5. Computational Thinker	Collect scientific data and put into a graph.	9. Data	Vernier and LoggerPro
	TBD	1. Empowered Learner 3. Knowledge Constructor 4. Innovative Designer 5. Computational Thinker 6. Creative Communicator 7. Global Collaborator	Personal Project	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 7. Vector Graphics 8. Programming 9. Data 10. Database 11. Creating Websites	Depends on the scope of the PP
	TBD	1. Empowered Learner 3. Knowledge Constructor 4. Innovative Designer 5. Computational Thinker 6. Creative Communicator 7. Global Collaborator	Worldwide Digital Campaign through various media	1. Images 2. Videos 7. Vector Graphics	
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Develop and implement how to videos for students regarding technology at HIS. Deliver to students.	5. Video and Animated Special Effects	
	TBD	5. Computational Thinker	Use databases to search for information.	3. Text 9. Data 10. Database	Destiny Databases

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
Grade 10	TBD	4. Innovative Designer		4. 3D Models	Autodesk
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Video presentations	1. Images 2. Videos 5. Video and Animated Special Effects 6. Audio Media	Flipgrid, iMovie, QuickTime
	TBD	3. Knowledge Constructor	Examine the progression of violence in film. Robin Hood is a good example. Compare with social norms throughout history. How does the audience connect to the world?	3. Videos 6. Audio Media	Violence in Film
Grade 11					
	TBD	5. Computational Thinker	Collect scientific data and put it into a graph	9. Data	Vernier, LoggerPro, and Excel.
	TBD	3. Knowledge Constructor	Report writing	3. Text 9. Data	Word
	TBD	4. Innovative Designer	Exploring 3D Models	4. 3D Models	Molview website
	TBD	3. Knowledge Constructor	Self-directed digital note-taking strategies	1. Images 3. Text 6. Audio Media	Read and Write, EverNote OneNote Notion SimpleNote
	TBD	3. Knowledge Constructor	Digital textbook, read, write and find application.	3. Text 6. Audio Media	Depends on the publisher
	TBD	1. Empowered Learner 3. Knowledge Constructor 4. Innovative Designer 6. Creative Communicator	MOOC and/or digital classrooms	1. Images 2. Videos 3. Text 4. 3D Models 5. Video and Animated Special Effects 6. Audio Media 11. Creating Websites	Online University or Open Source Academy
	TBD	4. Innovative Designer	Visual 3D classrooms and labs	1, 2,5	zSpace
	TBD	5. Computational Thinker	Use/teach how to use databases to search for information	10. Database	Destiny Databases

Grade Level	IB Unit	ISTE	Activity Example	Media Type/Topic	Software
	TBD	1. Empowered Learner 3. Knowledge Constructor 6. Creative Communicator	Video presentations	1. Images 2. Videos 5. Video and Animated Special Effects 6. Audio Media	Flipgrid, iMovie, QuickTime
Grade 12					
	TBD		Collect scientific data and put it into a graph	9. Data	Vernier, LoggerPro, and Excel.
	TBD		Report writing	3. Text	Word
	TBD		Exploring 3D models	4. 3D Models	Molview Website
	TBD		Demonstrate how to search databases for information.	10. Database	Destiny Databases
	TBD		Video presentations	1. Images 2. Videos 5. Video and Animated Special Effects 6. Audio Media	Flipgrid, iMovie, QuickTime

Computer Science Skills K-6

Grades K-6: Level 1 – Computer Science & Me

Adapted from Computer Science Teacher Association Computer Science Standards 2011

It focuses on fundamental concepts with the following general goals: 1. The curriculum should prepare students to understand the nature of computer science and its place in the modern world. 2. Students should understand that computer science interweaves concepts and skills. 3. Students should be able to use computer science skills (especially computational thinking) in their problem-solving activities in other subjects. If these standards are widely implemented and these goals are met, high school graduates will be prepared to be knowledgeable users and critics of computers, as well as designers and builders of computing applications that will affect every aspect of life in the 21st century.

Key
E=Expose –Introduce the students to the learning.
T=Teach-Planned and deliberate teaching, students are aware of the learning outcomes.
C=Consolidate-Revisit the concepts, usually in conjunction with related learning.
- Technology Integration Key

CT-Computational Thinking	CL-Collaboration	CPP-Computing Practice and Programming	CD-Computers and Communications Devices	CI-Community, Global, and Ethical Practices

Level 1: Computer Science and Me (L1)

Computational Thinking: (CT)

	Grades K–3 (L1:3.CT) The student will be able to:	K	1	2	3	4	5	6	Example/Resources
CT1:3.1	**1.** Use technology resources (e.g., puzzles, logical thinking programs) to solve age- appropriate problems.	T	T	T	C	C	C	C	
CT1:3.2	**2.** Use writing tools, digital cameras, and drawing tools to illustrate thoughts, ideas, and stories in a step-by-step manner.	T	T	T	T	T	T	T	
CT1:3.3	**3.** Understand how to arrange (sort) information into useful order, such as sorting students by birth date, without using a computer.	T	T	T	C	C	C	C	
CT1:3.4	**4.** Recognize that software is created to control computer operations.	E	E	T	T	T	T	T	
CT1:3.5	**5.** Demonstrate how 0s and 1s can be used to represent information.			E	E	E	T	T	
	Grades 3–6 (L1:6.CT) The student will be able to:	**K**	**1**	**2**	**3**	**4**	**5**	**6**	
CT1:6.1	**1.** Understand and use the basic steps in algorithmic problem-solving (e.g., problem statement and exploration, examination of sample instances, design, implementation, and testing).						E	T	
CT1:6.2	**2.** Develop a simple understanding of an algorithm (e.g., search, sequence of events, or sorting) using computer-free exercises.					E	E	T	
CT1:6.3	**3.** Demonstrate how a string of bits can be used to represent alphanumeric information.						E	T	
CT1:6.4	**4.** Describe how a simulation can be used to solve a problem.							T	

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Ct1:6.5	**5.** Make a list of sub-problems to consider while addressing a larger problem.								
CT1:6.6	**6.** Understand the connections between computer science and other fields.				E	E	T	C	

Collaboration (CL)

	Grades K–3 (L1:3.CL) The student will be able to:	***K***	***1***	***2***	***3***	***4***	***5***	***6***	Example/Resources
CL1:3.1	**1.** Gather information and communicate electronically with others with support from teachers, family members, or student partners.	***E***	***E***	***T***	***C***	***C***	***C***	***C***	
CL1:3.2	**2.** Work cooperatively and collaboratively with peers, teachers, and others using technology.	***E***	***E***	***T***	***C***	***C***	***C***	***C***	
	Grades 3–6 (L1:6.CL) The student will be able to:								
CL1:6.1	**1.** Use productivity technology tools (e.g., word processing, spreadsheet, presentation software) for individual and collaborative writing, communication, and publishing activities.				***E***	***T***	***C***	***C***	
CL1:6.2	**2.** Use online resources (e.g., email, online discussions, collaborative web environments) to participate in collaborative problem- solving activities for the purpose of developing solutions or products.					***E***	***T***	***C***	
CL1:6.3	**3.** Identify ways that teamwork and collaboration can support problem solving and innovation.					***E***	***T***	***T***	

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Computing Practice and Programming (CPP)

	Grades K–3 (L1:3.CPP) The student will be able to:	***K***	***1***	***2***	***3***	***4***	***5***	***6***	Example/Resources
CPP1:3.1	**1.** Use technology resources to conduct age- appropriate research.	***E***	***T***	***T***	***T***	***C***	***C***	***C***	**Library Catalogue** **Encyclopedia Britannica Online** **Webpath Express** *****Educationally reviewed websites***
CPP1:3.2	**2.** Use developmentally appropriate multimedia resources (e.g., interactive books and educational software) to support learning across the curriculum.	***E***	***T***	***T***	***T***	***C***	***C***	***C***	
CPP1:3.3	**3.** Create developmentally appropriate multimedia products with support from teachers, family members, or student partners.	***E***	***T***	***T***	***T***	***C***	***C***	***C***	
CPP1:3.4	**4.** Construct a set of statements to be acted out to accomplish a simple task (e.g., turtle instructions).	***E***	***E***	***T***	***T***	***C***	***C***	***C***	
CPP1:3.5	**5.** Identify jobs that use computing and technology.	***E***	***T***	***T***	***C***	***C***	***C***	***C***	
CPP1:3.6	**6.** Gather and organize information using concept-mapping tools.	***E***	***T***	***T***	***T***	***C***	***C***	***C***	
	Grades 3–6 (L1:6.CPP) The student will be able to:								
CPP1:6.1	**1.** Use technology resources (e.g., calculators, data collection probes, mobile devices, videos, educational software, and web tools) for problem-solving and self-directed learning.			***E***	***T***	***T***	***T***	***T***	

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CPP1:6.2	**2.** Use general-purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning.		***E***	***E***	***T***	***T***	***C***	***C***	
CPP1:6.3	**3.** Use technology tools (e.g., multimedia and text authoring, presentation, web tools, digital cameras, and scanners) for individual and collaborative writing, communication, and publishing activities.		***E***	***E***	***T***	***T***	***C***	***C***	
CPP1:6.4	**4.** Gather and manipulate data using a variety of digital tools.			***E***	***T***	***T***	***T***	***T***	
CPP1:6.5	**5.** Construct a program as a set of step-by-step instructions to be acted out (e.g., make a peanut butter and jelly sandwich activity).			***E***	***T***	***T***	***C***	***C***	
CPP1:6.6	**6.** Implement problem solutions using a block- based visual programming language.	***E***	***E***	***T***	***T***	***T***	***T***	***T***	***The Foos for Grades K-*** ***Scratch for Grades 2-*** ***Tynker for Grades 4-***
CPP1:6.7	**7.** Use computing devices to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests.		***E***	***T***	***T***	***C***	***C***	***C***	
CPP1:6.8	**8.** Navigate between webpages using hyperlinks and conduct simple searches using search engines.		***E***	***E***	***T***	***C***	***C***	***C***	
CPP1:6.9	**9.** Identify a wide range of jobs that require knowledge or use of computing.		***E***	***T***	***T***	***T***	***T***	***T***	
CPP1:6.10	**10.** Gather and manipulate data using a variety of digital tools.	***E***	***E***	***T***	***T***	***T***	***T***	***T***	

Key
E=Expose –Introduce the students to the learning.
T=Teach-Planned and deliberate teaching, students are aware of the learning outcomes.
C=Consolidate-Revisit the concepts, usually in conjunction with related learning.
- Technology Integration Key

CT-Computational Thinking	CL-Collaboration	CPP-Computing Practice and Programming	CD-Computers and Communications Devices	CI-Community, Global, and Ethical Practices

Computers and Communications Devices (CD)

	Grades K–3 (L1:3.CD) The student will be able to:	***K***	***1***	***2***	***3***	***4***	***5***	***6***	Example/Resources
CD1:3.1	**1.** Use standard input and output devices to successfully operate computers and related technologies.		***E***	***T***	***T***	***C***	***C***	***C***	
	Grades 3–6 (L1:6.CD) The student will be able to:								
CD1:6.1	**1.** Demonstrate an appropriate level of proficiency with keyboards and other input and output devices.		***E***	***T***	***T***	***T***	***C***	***C***	
CD1:6.2	**2.** Understand the pervasiveness of computers and computing in daily life (e.g., voice mail, downloading videos and audio files, microwave ovens, thermostats, wireless Internet, mobile computing devices, GPS systems).	***E***	***E***	***T***	***T***	***T***	***C***	***C***	
CD1:6.3	**3.** Apply strategies for identifying simple hardware and software problems that may occur during use.		***E***	***T***	***T***	***C***	***C***	***C***	
CD1:6.4	**4.** Identify that information is coming to the computer from many sources over a network.		***E***	***T***	***T***	***C***	***C***	***C***	
CD1:6.5	**5.** Identify factors that distinguish humans from machines.			***E***	***E***	***T***	***T***	***C***	
CD1:6.6	**6.** Recognize that computers model intelligent behavior (as found in robotics, speech and language recognition, and computer animation).		***E***	***E***	***T***	***T***	***C***	***C***	

Community, Global, and Ethical Impacts (CI)

	Grades K–3 (L1:3.CI) The student will be able to:	***K***	***1***	***2***	***3***	***4***	***5***	***6***	Example/Resources
CI1:3.1	**1.** Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology	***E***	***T***	***T***	***C***	***C***	***C***	***C***	

Key
E=Expose –Introduce the students to the learning.
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C=Consolidate-Revisit the concepts, usually in conjunction with related learning.
- Technology Integration Key

CT-Computational Thinking	CL-Collaboration	CPP-Computing Practice and Programming	CD-Computers and Communications Devices	CI-Community, Global, and Ethical Practices

	systems and software.								
CI1:3.2	**2.** Identify positive and negative social and ethical behaviors for using technology.	***E***	***T***	***T***	***C***	***C***	***C***	***C***	
	Grades 3–6 (L1:6.CI) The student will be able to:								
CI1:6.1	**1.** Discuss basic issues related to responsible use of technology and information, and the consequences of inappropriate use.			***E***	***T***	***T***	***C***	***C***	
CI1:6.2	**2.** Identify the impact of technology (e.g., social networking, cyber bullying, mobile computing and communication, web technologies, cyber security, and virtualization) on personal life and society.				***E***	***T***	***T***	***T***	
CI1:6.3	**3.** Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and biases that occur in electronic information sources.				***E***	***T***	***T***	***T***	
CI1:6.4	**4.** Understand ethical issues that relate to computers and networks (e.g., equity of access, security, privacy, copyright, and intellectual property).					***E***	***T***	***T***	

DIGITAL CITIZENSHIP CURRICULUM	KINDERGARTEN			GRADE 1			GRADE 2						
International Society for Technology in Education **Grades K-2**	Media Balance Is Important	Pause for People	Safety in My Online Neighborhood	Pause & Think Online	How Technology Makes You Feel	Internet Traffic Light	We, the Digital Citizens	Device-Free Moments	That's Private	Digital Trails	Who Is in Your Online Community?	Putting a STOP to Online Meanness	Let's Give Credit!
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. Students:													
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.													
b. Build networks and customize their learning environments in ways that support the learning process.													
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.			•										
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.	•	•	•	•	•	•	•	•	•	•	•	•	•
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. Students:													
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.							•		•	•		•	
b. Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.			•	•	•	•	•	•	•	•	•	•	•
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.				•	•	•	•		•				•
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. Students:													
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.			•										•
b. Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.													•

DIGITAL CITIZENSHIP CURRICULUM	KINDERGARTEN			GRADE 1			GRADE 2						
International Society for Technology in Education **Grades K-2**	Media Balance Is Important	Pause for People	Safety in My Online Neighborhood	Pause & Think Online	How Technology Makes You Feel	Internet Traffic Light	We, the Digital Citizens	Device-Free Moments	That's Private	Digital Trails	Who Is in Your Online Community?	Putting a STOP to Online Meanness	Let's Give Credit!
c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.			•										•
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.	•	•	•	•	•	•	•	•	•	•	•	•	•
4. Innovative Designer: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:													
a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.													
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.													
c. Develop, test, and refine prototypes as part of a cyclical design process.													
d. Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with 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. Students:													
a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.													
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.											•		•
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.										•	•		
d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.													
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. Students:													
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.									•				•

DIGITAL CITIZENSHIP CURRICULUM	KINDERGARTEN			GRADE 1			GRADE 2						
International Society for Technology in Education **Grades K-2**	Media Balance Is Important	Pause for People	Safety in My Online Neighborhood	Pause & Think Online	How Technology Makes You Feel	Internet Traffic Light	We, the Digital Citizens	Device-Free Moments	That's Private	Digital Trails	Who Is in Your Online Community?	Putting a STOP to Online Meanness	Let's Give Credit!
b. Create original works or responsibly repurpose or remix digital resources into new creations.								•	•	•			•
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.										•			•
d. Publish or present content that customizes the message and medium for their intended 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. Students:													
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.				•						•			
b. Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.		•								•			
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	•	•	•	•	•	•	•	•	•	•	•	•	•
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.		•		•	•			•	•	•			•

DIGITAL PASSPORT™	SECURITY	MULTITASKING	PRIVACY	UPSTANDER	SEARCH	CREATIVE CREDIT
ISTE® International Society for Technology in Education **Grades 3–5**	Password Protect	Twalkers	Share Jumper	E-volve	Search Shark	Mix-n-Mash
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. Students:						
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.						
b. Build networks and customize their learning environments in ways that support the learning process.						
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	•	•	•	•	•	•
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.	•	•	•	•	•	•
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. Students:						
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. STUDENTS:						
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	•		•	•		
b. Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.		•	•	•		•
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.						•
d. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.	•		•	•		

DIGITAL PASSPORT™	SECURITY	MULTITASKING	PRIVACY	UPSTANDER	SEARCH	CREATIVE CREDIT
International Society for Technology in Education **Grades 3–5**	Password Protect	Twalkers	Share Jumper	E-volve	Search Shark	Mix-n-Mash
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. Students:						
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.					•	
b. Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.						
c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.					•	•
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	•	•	•	•	•	•
4. Innovative Designer: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:						
a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.						•
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.						•
c. Develop, test and refine prototypes as part of a cyclical design process.						•
d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with 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. Students:						
a. Formulate problem definitions suited for technology assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.						
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.			•	•	•	

DIGITAL PASSPORT™	SECURITY	MULTITASKING	PRIVACY	UPSTANDER	SEARCH	CREATIVE CREDIT
ISTE® International Society for Technology in Education **Grades 3–5**	Password Protect	Twalkers	Share Jumper	E-volve	Search Shark	Mix-n-Mash
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.						
d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.			•		•	
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. Students:						
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.						•
b. Create original works or responsibly repurpose or remix digital resources into new creations.						•
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	•	•	•	•		•
d. Publish or present content that customizes the message and medium for their intended 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. Students:						
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.						
b. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.		•				
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.		•				
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.		•				

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DIGITAL CITIZENSHIP CURRICULUM	GRADE 6						GRADE 7						GRADE 8					
International Society for Technology in Education **Grades 6–8**	Finding Balance in a Digital World	Don't Feed the Phish	Who Are You Online?	Chatting Safely Online	Digital Drama Unplugged	Finding Credible News	My Media Use: A Personal Challenge	Big, Big Data	The Power of Digital Footprints	My Social Media Life	Upstanders and Allies: Taking Action Against Cyberbullying	The Four Factors of Fair Use	Digital Media and Your Brain	Being Aware of What You Share	Social Media and Digital Footprints: Our Responsibilities	Sexting and Relationships	Responding to Hate Speech	Media and News Literacy
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. Students:																		
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.							•						•					
b. Build networks and customize their learning environments in ways that support the learning process.													•					
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.							•						•					
d. Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies, and transfer their knowledge to explore emerging technologies.				•			•		•			•	•		•			•
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. Students:																		
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
b. Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.							•					•						
d. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.		•	•	•				•	•	•	•			•		•	•	

DIGITAL CITIZENSHIP CURRICULUM	GRADE 6						GRADE 7						GRADE 8					
International Society for Technology in Education **Grades 6–8**	Finding Balance in a Digital World	Don't Feed the Phish	Who Are You Online?	Chatting Safely Online	Digital Drama Unplugged	Finding Credible News	My Media Use: A Personal Challenge	Big, Big Data	The Power of Digital Footprints	My Social Media Life	Upstanders and Allies: Taking Action Against Cyberbullying	The Four Factors of Fair Use	Digital Media and Your Brain	Being Aware of What You Share	Social Media and Digital Footprints: Our Responsibilities	Sexting and Relationships	Responding to Hate Speech	Media and News Literacy
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. Students:																		
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.						•												•
b. Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.						•	•		•	•								•
c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.						•						•			•			•
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.				•		•			•			•	•		•			•
4. Innovative Designer: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:																		
a. Know and use a deliberate design process for generating ideas, testing theories, and creating innovative artifacts, or solving authentic problems.								•				•						
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.								•										
c. Develop, test, and refine prototypes as part of a cyclical design process.								•										
d. Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with 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. Students:																		
a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.																		
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.							•											

DIGITAL CITIZENSHIP CURRICULUM	GRADE 6						GRADE 7						GRADE 8					
International Society for Technology in Education **Grades 6–8**	Finding Balance in a Digital World	Don't Feed the Phish	Who Are You Online?	Chatting Safely Online	Digital Drama Unplugged	Finding Credible News	My Media Use: A Personal Challenge	Big, Big Data	The Power of Digital Footprints	My Social Media Life	Upstanders and Allies: Taking Action Against Cyberbullying	The Four Factors of Fair Use	Digital Media and Your Brain	Being Aware of What You Share	Social Media and Digital Footprints: Our Responsibilities	Sexting and Relationships	Responding to Hate Speech	Media and News Literacy
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.							•											
d. Understand how automation works, and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.																		
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. Students:																		
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.				•			•					•	•					•
b. Create original works or responsibly repurpose or remix digital resources into new creations.												•						
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.																		
d. Publish or present content that customizes the message and medium for their intended 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. Students:																		
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.																		
b. Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues, and problems from multiple viewpoints.			•				•		•			•	•		•			•
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.			•						•				•					•
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.							•		•				•					•

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DIGITAL CITIZENSHIP CURRICULUM	GRADE 9						GRADE 10					
ISTE International Society for Technology in Education **Grades 9–10**	My Digital Life Is Like ...	The Big Data Dilemma	Protecting Online Reputations	Chatting and Red Flags	What You Send in "That Moment When ..."	Hoaxes and Fakes	Social Media and How You Feel	Risk Check for New Tech	Curated Lives	Rewarding Relationships	Countering Hate Speech Online	Challenging Confirmation Bias
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. Students:												
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.	•						•		•			•
b. Build networks and customize their learning environments in ways that support the learning process.												
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.												
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.	•	•	•	•	•	•	•	•	•	•	•	•
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. Students:												
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.		•	•					•	•			
b. Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.	•	•	•	•	•	•	•	•	•	•	•	•
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.			•					•				•
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. Students:												
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	•	•	•	•	•	•	•	•	•	•	•	•
b. Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.				•	•	•	•	•		•		•

DIGITAL CITIZENSHIP CURRICULUM	GRADE 9						GRADE 10					
ISTE® International Society for Technology in Education **Grades 9–10**	My Digital Life Is Like ...	The Big Data Dilemma	Protecting Online Reputations	Chatting and Red Flags	What You Send in "That Moment When ..."	Hoaxes and Fakes	Social Media and How You Feel	Risk Check for New Tech	Curated Lives	Rewarding Relationships	Countering Hate Speech Online	Challenging Confirmation Bias
c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.									•			
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	•	•	•	•	•	•	•	•	•	•	•	•
4. Innovative Designer: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:												
a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.	•	•	•	•	•		•	•	•	•	•	•
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	•	•	•	•	•		•	•	•	•	•	•
c. Develop, test, and refine prototypes as part of a cyclical design process.												
d. Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with 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. Students:												
a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.												
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.						•						
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.						•						
d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.												
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. Students:												
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	•	•	•	•	•	•	•	•	•	•	•	•

DIGITAL CITIZENSHIP CURRICULUM	GRADE 9						GRADE 10					
International Society for Technology in Education **Grades 9–10**	My Digital Life Is Like ...	The Big Data Dilemma	Protecting Online Reputations	Chatting and Red Flags	What You Send in "That Moment When ..."	Hoaxes and Fakes	Social Media and How You Feel	Risk Check for New Tech	Curated Lives	Rewarding Relationships	Countering Hate Speech Online	Challenging Confirmation Bias
b. Create original works or responsibly repurpose or remix digital resources into new creations.	•	•	•	•	•	•	•	•	•	•	•	•
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.					•	•		•	•	•	•	
d. Publish or present content that customizes the message and medium for their intended 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. Students:												
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.	•	•	•	•	•	•	•	•	•	•	•	•
b. Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.	•	•	•	•	•	•	•	•	•	•	•	•
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	•	•	•	•	•	•	•	•	•	•	•	•
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	•	•	•	•	•	•	•	•	•	•	•	•

DIGITAL CITIZENSHIP CURRICULUM	GRADE 11						GRADE 12					
International Society for Technology in Education **Grades 11-12**	Can Media Be Addictive?	How Young Is Too Young for Social Media?	Who's Looking at Your Digital Footprint?	Connecting with Digital Audiences	Online Disinhibition and Cyberbullying	Clicks for Cash	The Health Effects of Screen Time	Debating the Privacy Line	The Change You Want to See	We Are Civil Communicators	Should Online Hate Speech Be Censored?	Filter Bubble Trouble
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. Students:												
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.	•						•		•			•
b. Build networks and customize their learning environments in ways that support the learning process.				•					•			•
c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.				•					•			•
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.	•	•	•	•	•	•	•	•	•	•	•	•
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. Students:												
a. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.		•	•		•			•	•	•	•	•
b. Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.	•	•	•	•	•	•	•	•	•	•	•	•
c. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.				•				•	•		•	•
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. Students:												
a. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	•	•	•	•	•	•	•	•	•	•	•	•
b. Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.	•			•		•	•		•	•	•	•

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c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.												•
d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.	•	•	•	•	•	•	•	•	•	•	•	•
4. Innovative Designer: Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:												
a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.												•
b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.												•
c. Develop, test, and refine prototypes as part of a cyclical design process.												•
d. Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with 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. Students:												
a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.												
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.												
c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.												
d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.												•
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. Students:												
a. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	•	•	•	•	•	•	•	•	•	•	•	•

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b. Create original works or responsibly repurpose or remix digital resources into new creations.	•	•	•	•	•	•	•	•	•	•	•	•
c. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.				•					•	•		•
d. Publish or present content that customizes the message and medium for their intended 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. Students:												
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.	•	•	•	•	•	•	•	•	•	•	•	•
b. Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.	•	•	•	•	•	•	•	•	•	•	•	•
c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	•	•	•	•	•	•	•	•	•	•	•	•
d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.	•	•	•	•	•	•	•	•	•	•	•	•