

K-12 Nevada Integrated Technology Standards Progression

Standards in yellow are required standards for the 1/2 credit Computer Education & Technology course requirement for high school graduation.

	Kindergarten	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade	6-8	9-12	
Empowered Learner (EL) <i>Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.</i>	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. K.ELA.1 Participate as a collaborative group to utilize digital and non-digital planning tools.		2.ELA.1 With teacher guidance, utilize digital and non-digital planning tools.	3.ELA.1 Independently utilize digital and non-digital planning tools.	4.ELA.1 With teacher guidance, develop learning goals, select tools to achieve them, and reflect on and revise the learning process as needed to achieve goals.	5.ELA.1 Develop learning goals, select the technology tools to achieve them, and reflect on and revise the learning process as needed to achieve goals.	6-8.ELA.1 Articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals.	9-12.ELA.1 Actively assimilate and revise personal and career goals, select and manage current and emerging technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals.	
	B. Build networks and customize their learning environments in ways that support the learning process.		1.EL.B.1 With teacher guidance, create a non-digital personal learning network of peers who can provide support.		4.EL.B.1 Create a digital or non-digital personal learning network of peers who can provide support.		6-8.EL.B.2 Identify and develop online networks within school policy, and customize their learning environments in ways that support their learning, in collaboration with an educator.	9-12.EL.B.1 Consistently engage in online social networks as a means to access and promote lifelong learning in collaboration with global peers.	
	C. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.				4.EL.C.1 Seek feedback from both people and digital tools, and use age-appropriate technology to share learning.		6-8.EL.C.1 Actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways.	9-12.EL.C.1 Regularly revise their work habits and attitudes based on feedback from others and from functionalities embedded in digital tools to improve their learning process, and they select or creatively use technologies to share their learning in ways that are useful to others.	
	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.	K.ELD.1 Locate and use letter and number keys and the space bar. K.ELD.2 Demonstrate proper care and use of equipment.	1.ELD.1 Locate and use letter, number, punctuation, and use of special function keys (e.g., shift, backspace, delete).	2.ELD.1 Master location and use of special function keys (e.g., shift, backspace, delete). 2.ELD.2 Demonstrate the use of drag and drop, copy, paste, undo, and editing and correction techniques.	3.ELD.1 Demonstrate appropriate touch (blind) typing with speed and accuracy.		5.ELD.1 Demonstrate proficient touch (blind) typing with speed and accuracy.	6-8.ELD.1 Navigate a variety of technologies and transfer their knowledge and skills to learn how to use new technologies.	9-12.ELD.1 Successfully use a variety of existing technologies to develop criteria and identify new digital tools and resources from emerging technologies to accomplish a defined task with fluency and ease.
Digital Citizen (DC) <i>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.</i>	A. Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world. Refer to NVACS - Computer Science (K.I.C.1 and K.I.C.1.1)			3.DCA.1 Demonstrate an understanding of the role an online identity plays in the digital world and learn the permanence of their decisions when interacting online.		5.DCA.1 Understand the notion of "digital footprint" and the permanence and traceability associated with online communication.	6-8.DCA.1 Describe how to manage digital identities and reputations within school policy, including demonstrating an understanding of how digital actions may have positive or negative implications for their future.	9-12.DCA.1 Analyze their digital identities and reputations within school policy to consider social media's impact on society, including demonstrating an understanding of how digital actions may have positive or negative implications for their future.	
	B. Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.	K.DC.B.1 Describe potential dangers in digital environments and how to report potentially unsafe situations.		3.DC.B.1 Describe codes of conduct for using technology at school and the consequences for breaking those rules.	4.DC.B.1 Practice and encourage others in a safe, legal, and ethical behavior when using technology and interacting online.		6-8.DC.B.1 Demonstrate and advocate for positive, safe, legal, and ethical habits when using technology and when interacting with others online.	9-12.DC.B.1 Demonstrate and advocate for positive, safe, legal, and ethical habits when using technology and when interacting with others online.	
	C. Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	K.DC.C.1 Describe potential dangers in digital environments and how to report potentially unsafe situations.	1.DC.C.1 Articulate what is allowed and what is not allowed at school when using technology.	2.DC.C.1 Make responsible decisions - grounded in knowledge of digital safety and security best practices.	4.DC.C.1 Demonstrate how to paraphrase the information learned from online sources into their own words.		6-8.DC.C.1 Advocate and demonstrate a respect for intellectual property with both print and digital media - including copyright, permission and fair use - by creating a variety of media products that include appropriate citation and attribution elements.	9-12.DC.C.1 Advocate and demonstrate a respect for intellectual property with both print and digital media - including copyright, permission and fair use - by creating a variety of media products that include appropriate citation and attribution.	
	D. Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. Refer to NVACS - Computer Science (K.NI.C.1)		Refer to NVACS - Computer Science (1.NI.C.1)	Refer to NVACS - Computer Science (2.NI.C.1)	Refer to NVACS - Computer Science (3.I.C.SLE.1)		6-8.DC.D.1 Demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password strength, cookies, phishing, and computer viruses; understand the limitations of data management and how data-collection technology works.	9-12.DC.D.1 Demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password strength, cookies, phishing, and computer viruses; understand the limitations of data management and how data-collection technology works.	
Knowledge Constructor (KC) <i>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.</i>	A. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.		1.KCA.1 Collaborate with others using digital resources to learn about high interest topics.	2.KCA.1 Identify and organize keywords and use multiple sources to answer an essential question.		4.KCA.1 Use keywords to search, organize, locate, and synthesize information in multiple sources to create an original product.	6-8.KCA.1 Demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning.	9-12.KCA.1 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.			3.KC.B.1 With teacher guidance, become familiar with age-appropriate criteria for evaluating digital content.			5.KC.B.1 Explain the importance of using more than one source and recognize possible bias in digital resources.	6-8.KC.B.1 Practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility, and relevance.	9-12.KC.B.1 Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources in the school and career setting.
	C. Curate information from digital resources using a variety of tools and methods to create collection of artifacts that demonstrate meaningful connections or conclusions.			3.KC.C.1 Organize information and make meaningful connections between resources.			6-8.KC.C.1 Locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes.	9-12.KC.C.1 Curate information from digital resources, including online databases and catalogs, for research using a variety of tools and methods to create collections of artifacts that support their learning and career goals.	
	D. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.			2.KC.D.1 Use digital models and simulations to explore complex systems and issues.	3.KC.D.1 Create essential questions to guide investigation of a real-world problem using digital resources.		5.KC.D.1 Propose solutions to real-world problems using collected data and digital tools.	6-8.KC.D.1 Explore real-world issues and problems through inquiry and analysis, develop ideas, actively create solutions for them, and evaluate and revise through the use of digital tools.	9-12.KC.D.1 Explore real-world issues and problems through inquiry and analysis, develop ideas, actively create solutions for them, and evaluate and revise through the use of digital tools.
Innovative Designer (ID) <i>Students use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.</i>	A. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems. K.ID.D.1 With teacher guidance, ask questions, suggest solutions, test ideas to solve problems and share their learning.		1.ID.A.1 Explore and practice how a design process works to generate ideas, consider solutions, plan to solve a problem, or create innovative products that are shared with others.	2.ID.B.1 Plan and manage projects using a digital and/or non-digital planning tool.	3.ID.B.1 Describe a variety of ways to interact and contribute to a digital product.	4.ID.A.1 Demonstrate how a design process works to generate ideas, create innovative products or solve authentic problems, and evaluate the process to revise if needed.	6-8.ID.A.1 Engage in a design process and employ it to inquire and analyze, generate ideas, create innovative products or solve authentic problems, and evaluate the process to revise if needed.	9-12.ID.A.1 Engage in a design process and employ it to inquire and analyze, generate ideas, create innovative products or solve authentic problems, and evaluate the process to revise if needed.	
	B. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.		1.ID.C.1 Use a design process to develop ideas or creations, and they test their design and redesign if necessary.				5.ID.B.1 Plan and manage projects using digital planning tools.	6-8.ID.B.1 Select and use digital tools to support a design process and expand their understanding to identify constraints, trade-offs, and to weigh risks.	9-12.ID.B.1 Creatively use digital tools to support a design process and expand their understanding to identify constraints, trade-offs, and to weigh risks.
	C. Develop, test, and refine prototypes as part of a cyclical design process.			1.ID.D.1 Demonstrate perseverance when working to complete a challenging task.			4.ID.D.1 Demonstrate perseverance when working with open-ended problems.	6-8.ID.C.1 Engage in a design process to inquire and analyze, develop ideas, test, and revise prototypes, embracing the cyclical process of trial and error, and understanding problems or setbacks as potential opportunities for improvement.	9-12.ID.C.1 Engage in a cyclical design process to inquire and analyze, develop ideas, test, and revise prototypes, presenting finished products and best practices learned during the development.
	D. Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems.						6-8.ID.D.1 Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.	9-12.ID.D.1 Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.	
Computational Thinker (CT) <i>Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.</i>	A. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions. K.CT.A.1 With teacher guidance, explore alternative solutions to and diverse perspectives on authentic problems using digital tools.	1.CT.A.1 With teacher guidance, use data to answer an authentic problem using digital tools.		3.ID.A.1 Explore and practice how a design process works to generate ideas, consider solutions, plan to solve a problem, or create innovative products that are shared with others.	4.ID.A.1 Demonstrate how a design process works to generate ideas, create innovative products or solve authentic problems, and evaluate the process to revise if needed.		6-8.CT.A.1 Practice defining problems to solve by computing for data analysis, modeling, or algorithmic thinking.	9-12.CT.A.1 Define complex issues, create a plan, and select appropriate 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.		1.CT.B.1 With teacher guidance, identify patterns and predict possibilities with classroom data using digital tools.	2.CT.B.1 Identify patterns and predict possibilities with classroom data using digital tools.		4.CT.B.1 Identify and represent trends and make predictions using classroom data.		6-8.CT.B.1 Find or organize data and use technology to analyze and represent the data to solve problems and make decisions.	9-12.CT.B.1 Evaluate created or given 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.	K.CT.C.1 With teacher guidance, work in a team to solve problems using digital tools.	1.CT.C.1 With teacher guidance, identify and describe simple hardware and software problems (e.g., headphones, keyboard, volume).		3.CT.C.1 Work in a team to solve problems using digital tools.		6-8.CT.C.1 Break problems into component parts, identify key pieces, and use that information to problem solve.	9-12.CT.C.1 Collaborate to break problems into component parts, identify key pieces, and use that information to problem-solve.	
	D. Understand how automation works and use algorithmic thinking to develop a sequence to create and test automated solutions. Refer to NVACS - Computer Science (K.A.P.A.1 and K.A.P.PD.1)				3.CT.C.2 With teacher guidance, identify and describe the cause of hardware, connectivity, and software problems.		6-8.CT.D.1 Demonstrate an understanding of how automation works and use algorithmic thinking to design and automate solutions.	9-12.CT.D.1 Collaborate to develop an automated process by using algorithmic thinking to develop a sequence of steps to create and test automated solutions.	
Creative Communicator (CC) <i>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.</i>	A. Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communications.		1.CC.A.1 With teacher guidance, choose different tools for creating something new or for communicating with others.	3.CC.A.1 Describe appropriate media and formats for specific audiences.	4.CC.A.1 Demonstrate appropriate media and formats for specific audiences.	5.CC.A.1 Recognize and utilize appropriate media and formats for specific audiences.	6-8.CC.A.1 Select appropriate platforms and tools to create, share, and communicate their work effectively.	9-12.CC.A.1 Use digital learning tools and resources to identify communication needs considering goals, audience, content, access to tools or devices, and timing of communication, to involve teams in diverse locales for effective communication.	
	B. Create original works or responsibly repurpose or remix digital resources into new creations.		1.CC.B.1 With teacher guidance, create an original work using a variety of digital tools as a means of personal or group expression.		4.CC.B.1 Create an original, digital work as a form of personal or group expression.	5.CC.B.1 Create original works and learn strategies for responsibly remixing or repurposing to create new artifacts. (ISTE 6.b)	6-8.CC.B.1 Create original works and apply strategies for responsibly remixing or repurposing to create new artifacts. (ISTE 6.b)	9-12.CC.B.1 Create an original work using multiple digital tools, including planning, research, editing, and production.	
	C. Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.			2.CC.C.1 With teacher guidance, communicate information and ideas to an intended audience using digital text, images, and audio.		4.CC.C.1 Communicate information and ideas to an intended audience using digital text, images, and audio.		6-8.CC.C.1 Communicate complex ideas clearly using various digital tools to convey the concepts textually, visually, graphically, etc.	9-12.CC.C.1 Create digital graphic visualizations, data driven models, and simulations to succinctly communicate complex ideas and problems; justify methods and tools used.
	D. Publish or present content that customizes the message and medium for their intended audiences.						6-8.CC.D.1 Publish or present content designed for specific audiences and select platforms that will effectively convey their ideas to those audiences.	9-12.CC.D.1 Publish or present content designed for specific audiences using online meeting tools to asynchronous and synchronous audiences.	
Global Collaborator (GC) <i>Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.</i>	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.		1.GC.A.1 With teacher guidance, use digital tools to work with friends and with people outside their neighborhood, city and beyond.	3.GC.A.1 Explore alternative solutions to and diverse perspectives on authentic problems and propose a solution using digital tools.			6-8.GC.A.1 Use digital tools to interact with others to develop a richer understanding of different perspectives and cultures.	9-12.GC.A.1 Use digital tools to interact with others to develop a richer understanding of different perspectives and cultures; publish electronic artifacts that communicate to a culturally diverse and global community.	
	B. Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.			2.GC.B.1 With teacher guidance, use technology to look at problems from different perspectives.			5.GC.B.1 Use collaborative technologies to connect with others, including peers, experts, and community members, to explore different points of view on various topics.	6-8.GC.B.1 Use collaborative technologies to connect with others, including peers, experts, and community members, to learn about issues and problems or to gain broader perspectives.	9-12.GC.B.1 Use collaborative technologies (live and recorded) to connect with global stakeholders including peers, not including other languages, experts, and community members, to learn about issues and problems or to gain a broader perspective; develop multiple viewpoints that may be electronically published and accessible to all audiences.
	C. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.			2.GC.C.1 With teacher guidance, take on different team roles and use age-appropriate technologies to complete projects.		4.GC.C.1 Perform a variety of roles within a team using age-appropriate technology to complete a project or solve a problem.		6-8.GC.C.1 Determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference.	9-12.GC.C.1 Learn project management roles on a team to meet goals, based on their knowledge of technology and content, as well as personal preference; goals in project, timelines and milestones, will be monitored with tools and methods.
	D. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.			2.GC.D.1 With teacher guidance, use age-appropriate technologies to work together to understand problems and suggest solutions.	3.GC.D.1 Work with others using collaborative technologies to explore local and global issues.		6-8.GC.D.1 Select collaborative technologies and use them to work with others to investigate and develop solutions related to local and global issues.	9-12.GC.D.1 Select and justify the effective collaborative technologies (live video conference, online forums, social media, and other emerging communication methods) to investigate, develop and publish solutions related to local and global issues.	9-12.GC.D.2 Understand that digital tools such as blogs and social media can be used to crowd source, crowd fund, and mobilize a community toward a goal.