Wisconsin Standards for Information and Technology Literacy (ITL)

What is Information and Technology Literacy Education?

Information and Technology Literacy is the ability of an individual, working independently or with others, to use tools, resources, processes, and systems responsibly to access and evaluate information in any medium, and to use that information to solve problems, communicate clearly, make informed decisions, and construct new knowledge, products, or systems. The standards outlined in this document provide an important foundation to prepare students to be college and career ready.

A Vision for Information and Technology Literacy

Today's society is witnessing an unprecedented explosion of information and use of digital resources. In an environment where information is doubling at an incredible rate and digital resources are becoming an increased component of the classroom and the workplace, students face both difficult challenges and increased opportunities. The successful students, workers, and citizens of tomorrow will be self-directed agents of their own learning.

The State Superintendent's Wisconsin Digital Learning Plan (2016) identified updating the current Information and Technology Literacy Standards as a priority for DPI in collaboration with our local school districts and professional partners. The Plan's vision for student learning called for equitable, personalized, applied, and engaged digital learning for all students. The skillful and equitable use of technology can transform the way teaching and learning happen in classrooms across Wisconsin. Digital tools can enhance student learning as they connect efforts to identify what students should know and be able to do as well as help students and educators assess progress toward achieving academic goals. To meet the needs of today's students and to ensure they are college and career ready, schools are encouraged to be innovative in providing student learning experiences, adopting technologies and instruction in ways which meaningfully engage the digital generation.

Wisconsin's Academic Standards for Information and Technology Literacy identifies and defines the knowledge and skills essential for all Wisconsin students to access, evaluate, and use information and technology to engage in and take ownership of their learning. These standards connect and interrelate current perspectives in information literacy, media literacy, and technology literacy into a unified conceptual framework. The standards also demonstrate processes for rethinking education, adapting to a constantly changing technological landscape and preparing students to enter an increasingly global economy.

As educators, we are preparing students for a future that we cannot yet imagine. Empowering students to become lifelong learners and providing them with the skills to face future challenges resourcefully and creatively is critical. Empowering students is not about using digital tools to support outdated education strategies and models: it is about tapping into technology's potential to amplify human capacity for collaboration, creativity, and communication. The Information and Technology Literacy Standards are about leveling the playing field and providing young people worldwide with equitable access to powerful learning opportunities.

Information and Technology Literacy (ITL) Education in Wisconsin

The purpose of these standards is to identify information and technology content and performance standards for all students throughout the kindergarten to grade twelve (K-12) curriculum. We must ensure that all children have equal access to high-quality education programs. Clear statements about what students must know and be able to do are essential in making sure our schools offer opportunities to get the knowledge and skills necessary for success beyond the classroom. The standards are designed to be integrated into the various content and skill areas of the school curriculum. **The focus is on learning *with* information and technology rather than learning *about* information and technology.** This integration will be varied and diverse based on the curricula of individual schools and school systems. The reflective dialogue will occur in school districts among administrators, curriculum directors, library media specialists, technology coordinators, educators, instructional coaches, parents, students, and community members as each district adopts or modifies these standards and integrates them into the local instructional program for students.

The focus is on a sequential and broad set of information and technology content and performance standards necessary for full development of skills for "learning how to learn" addressed in the core areas of the K-12 curriculum. Some of these ITL standards are included in other academic standards areas, and this inclusion underscores the importance of information and technology literacy standards by providing entry points for integrating them into a variety of curricular areas. Also, elective programs or advanced courses not a part of the curriculum required for all students may require additional or very specific technology skills beyond those listed in these standards.

Finally, accomplishing many of the performance standards listed here will require access to technology by individual students or student workgroups. These standards will be achieved with a strong district commitment to a technological infrastructure including

sufficient equipment and access, materials and staffing, appropriate technical support; and a comprehensive, ongoing program of teacher training and staff development.

Wisconsin's Approach to Standards for Information and Technology Literacy

With the release of the Wisconsin Standards for Information and Technology Literacy, educators have access to the foundational knowledge and skills needed to prepare students to be college and career ready. The learning priorities and performance indicators contained within each set of ITL standards consist of knowledge and skills specific to each of the seven strands. This working definition of Information and Technology Literacy draws upon these seven cross-cutting concepts from the from the International Society for Technology in Education (ISTE) student learning framework which the working group adapted in addition to Wisconsin-specific learning priorities and performance indicators:

- Empowered Learner (EL)
- Digital Citizen (DC)
- Knowledge Constructor (KC)
- Innovative Designer (ID)
- Computational Thinker (CT)
- Creative Communicator (CC)
- Global Collaborator (GC)

These standards are, of course, critical as the identified skills intersect with all content areas. In addition, there are many knowledge areas, skills, and dispositions common to the pursuit of careers and postsecondary education in many fields.   The vision for the new Wisconsin Information and Technology Literacy standards outlines the importance of integrating these standards across all content areas. Students are expected to demonstrate a higher level of application of inquiry, critical thinking, integration of technology tools and appropriate actions when using technology. The ITL standards support a higher level of student agency when leveraging critical thinking skills, collaboration, creativity, and communication. These standards connect and interrelate current perspectives in information literacy, media literacy, and technology literacy into a unified conceptual framework to integrate into other content areas.

Numerous existing sets of standards and standards-related documents have been used in developing the Wisconsin Standards for Information and Technology Literacy. These include:

- International Society for Technology in Education (ISTE): Student Standards (c.2016) https://www.iste.org/
- Common Sense Media: Digital Citizenship Curriculum https://www.commonsense.org/education/digital-citizenship
- Positive Behavioral Interventions and Support (PBIS) https://www.pbis.org/school

- Wisconsin Department of Public Instruction (DPI): Information and Technology Literacy Standards (c.1998) https://dpi.wi.gov/sites/default/files/imce/imt/pdf/infotech.pdf
- AASL: American Association of School Librarians (AASL) Standards for the 2st Century Learner (c.2007) http://www.ala.org/aasl/sites/ala.org.aasl/files/content/guidelinesandstandards/learningstandards/AASL_LearningStandards.pdf
- AASL: American Association of School Librarians (AASL) National School Library Standards (c.2017) http://standards.aasl.org/
- Wisconsin Academic Standards for Business and Information Technology https://dpi.wi.gov/standards
- Wisconsin Academic Standards for Computer Science Academic https://dpi.wi.gov/standards
- Wisconsin Academic Standards for English Language Arts https://dpi.wi.gov/standards
- Wisconsin Academic Standards for Mathematics Academic https://dpi.wi.gov/standards
- Wisconsin Academic Standards for Literacy in All Subjects https://dpi.wi.gov/standards
- Wisconsin Digital Learning Plan (c2016) - https://dpi.wi.gov/digital-learning
- Future Ready Schools Framework - https://dashboard.futurereadyschools.org/framework
- Wisconsin Department of Public Instruction (DPI): Social and Emotional Learning Competencies https://dpi.wi.gov/sspw/mental-health/social-emotional-learning

As with all the standards, the Wisconsin Standards for Information and Technology Literacy may be taught and integrated into a variety of classes and experiences. Each district, school, and program area should determine the means by which students meet these standards. Through the collaboration of multiple stakeholders, these foundational standards will set the stage for high-quality, successful, contemporary information and technology programming throughout Wisconsin's K-12 systems.

How to read the Wisconsin Academic Information and Technology Literacy (ITL) Standards?

ITL Standard Structure, Development and Language of the ITL Standards

The new Wisconsin standards across all disciplines are formatted from a common template to support educators in reading and interpreting them. The **discipline**, Information and Technology Literacy, is clearly stated at the top of each templated section. There are seven cross-cutting **content strands** that define the foundational knowledge and skills for the ITL standards. This working definition of Information and Technology Literacy draws upon the seven cross-cutting content strands from the International Society for Technology in Education (ISTE) student learning framework: Empowered Learner, Digital Citizen, Knowledge Constructor, Innovative Designer,

Computational Thinker, Creative Communicator and Global Collaborator. The figure below (figure 1) shows a sample standard from the Empowered Learning content area.

(Figure 1)

Content Area:
Empowered Learner (EL)

Discipline: Information and Technology Literacy (ITL)

Content Area: Empowered Learner (EL)

Standard: EL1 - Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.

The standard is a broad statement that begins with the statements "Students _____" which explains what students are expected to know or be able to do. Contained within each content area strand standard are **learning priorities** which break down the broad standard statement into manageable learning pieces. The learning priorities are further broken down into **performance indicators** which provide a measurable learning progression from grade band to grade band. The ITL performance indicators reflect the learning progression of skills across developmentally appropriate grade bands in content, skills and performance indicators to college and career readiness level.

Standards Formatting

- **Standard**: Broad statement that tells what students are expected to know or be able to do.
- **Learning Priority**: Breaks down the broad statement into manageable learning pieces.
- **Performance Indicator by Grade Band**: Measurable degree to which a standard has been developed or met.

Grade Bands

Grade bands of K-2, 3-5, 6-8 and 9-12 align to typical elementary, middle and high school levels.
- Grade bands K-2 and 3-5 performance indicators represent knowledge and skills that should be integrated throughout the elementary curriculum. These are represented in the standards coding with "e" and "i" respectively as there is no recommended grade level associated with each performance indicator.
- Performance indicators for the middle school and high school grade bands are also not associated with suggested grade levels, so the grade level codes for these grade bands are "m" for middle school and "h" for high school. Some districts may choose an integrated course format while others may choose to organize classes by discipline. There is not a recommended method.
- Information and Technology Literacy should be a core addition in all curricular areas at the middle level to enhance content and learning. Awareness, exploration, and building foundational skills should occur at the middle level.
- Information and Technology Literacy, at the high school level, must go beyond the basic foundational skills and knowledge. Students should be building skills and knowledge that are transferable across all content areas as well as extend to the workplace environment to ensure students are college and career ready.

With local control, districts can define performance indicators to grade levels that fit their needs. It should be noted that there are no performance indicators listed for 4K ITL standards. Our committee suggests that educators use the Wisconsin Model Early Learning Standards to guide their work and make connections with the natural information, media and digital literacy experiences that come up every day in the effective 4K learning experience.

The figure below (figure 2) shows shows a sample standard from the Empowered Learning content area with the learning priority and performance indicators by grade bands.
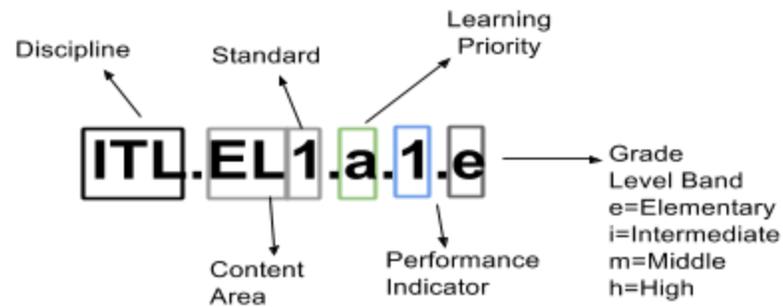
(Figure 2)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Empowered Learner (EL)				
Standard: EL1 - Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
EL1.a: Set goals and reflect.	EL1.a.1.e: Identify the purpose of and set personal learning goals with educator guidance.	EL1.a.3.i: Create personal learning goals and select digital tools to achieve them.	EL1.a.5.m: Create personal learning goals and select and manage appropriate digital tools to achieve those goals.	EL1.a.7.h: Create and articulate personal learning goals and develop strategies leveraging the most effective digital tools to achieve those goals.
	EL1.a.2.e: Utilize appropriate digital tools to reflect on the learning process with guidance.	EL1.a.4.i: Utilize digital tools to reflect on and revise the learning process and make necessary revisions as needed to achieve goals with educator support.	EL1.a.6.m: Utilize digital tools to reflect on and revise the learning process and make necessary revisions as needed to achieve goals.	EL1.a.8.h: Utilize digital tools to reflect on the learning process, including successes, areas of improvement, and then make necessary revisions and adjust goals for future learning.

Standard Coding

Each content standard code can be broken into parts to identify specific content area, standard number, learning priority, performance indicator, and grade band (as demonstrated below). The seven ITL cross-cutting content strands are headed by one or two standard statements that extend across all grade bands. The figure below represents a sample standard coded to include the discipline (Information and Technology Literacy), content area (Empowered Learner), standard (#1 - Students leverage digital tools and strategies to take active role in choosing and achieving their learning goals), learning priority (Set Goals and reflect), performance indicator, and grade band. So the figure (figure 3) below code refers to the "Identify the purpose of and set personal learning goals with guidance from an educator" performance indicator in the K-2 grade band.

(Figure 3)

The ITL standard code "ITL.EL1.a.1.e" is labeled with: Discipline (ITL), Standard (EL1), Learning Priority (a), Content Area (EL), Performance Indicator (1), and Grade Level Band (e), where e=Elementary, i=Intermediate, m=Middle, h=High.

Resources to Assist Districts in Planning and Implementation

To assist districts with local implementation, support materials are available that pull out the standards by grade level bands as well as isolate the K-12 cross-cutting Digital Citizenship strand. In addition, an ITL Standards Glossary has been produced to assist districts in helping to develop a common language around information literacy, media literacy, and technology literacy to better understand the integration of the ITL standards into all content areas.

Content Area:

Empowered Learner (EL)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Empowered Learner (EL)				
Standard: EL1 - Students leverage digital tools and strategies to take an active role in choosing and achieving their learning goals.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
EL1.a: Set goals and reflect.	EL1.a.1.e: Identify the purpose of and set personal learning goals with educator guidance.	EL1.a.3.i: Create personal learning goals and select digital tools to achieve them.	EL1.a.5.m: Create personal learning goals and select and manage appropriate digital tools to achieve those goals.	EL1.a.7.h: Create and articulate personal learning goals and develop strategies leveraging the most effective digital tools to achieve those goals.
	EL1.a.2.e: Utilize appropriate digital tools to reflect on the learning process with educator guidance.	EL1.a.4.i: Utilize digital tools to reflect on and revise the learning process and make necessary revisions as needed to achieve goals with educator support.	EL1.a.6.m: Utilize digital tools to reflect on and revise the learning process and make necessary revisions as needed to achieve goals.	EL1.a.8.h: Utilize digital tools to reflect on the learning process, including successes, areas of improvement, and then make necessary revisions and adjust goals for future learning.

EL1.b: Build network to support learning.	EL1.b.1.e: Explore and identify digital tools to be used to connect with others to enhance their learning with educator guidance.	EL1.b.2.i: Select digital tools to help build a network of experts and peers to enrich the learning experience with educator support.	EL1.b.3.m: Identify and pursue online networks of experts and peers to support learning processes and outcomes.	EL1.b.4.h: Build a professional online presence to connect with experts and peers to enhance learning processes and outcomes and prepare for future endeavors.
EL1.c: Create personalized learning environment.	EL1.c.1.e: Identify and explore digital tools that can be used to support personalized learning environment with educator guidance.	EL1.c.2.i: Explore and select digital tools to customize personalized learning environments with educator support.	EL1.c.3.m: Manage digital tools to customize learning by making adjustments to their personalized learning environments to maximize the learning process.	EL1.c.4.h: Prioritize digital tools to customize personalized learning environments in ways that maximize the learning process.
EL1.d: Seek and utilize feedback.	EL1.d.1.e: Receive performance feedback and make adjustments based on that feedback with educator guidance.	EL1.d.2.i: Seek performance feedback, and features embedded in digital tools to collect data and make learning adjustments with educator support.	EL1.d.3.m: Collect performance feedback, and further data from features embedded in digital tools to analyze data and make learning adjustments.	EL1.d.4.h: Evaluate and utilize digital tools to seek feedback from digital and nondigital, then analyze data to make adjustments and justify outcomes.

Standard: EL2 - Students understand the fundamental concepts of technology operations and demonstrate the ability to choose, use, and troubleshoot current technologies.				
	Performance Indicators (By Grade Band)			
EL2.a: Understand and apply functions and operations.	EL2.a.1.e: Explore a variety of digital tools and select a tool that will support learning with educator guidance.	EL2.a.2.i: Explore and select appropriate digital tools based on the necessary concepts of technology operations, including troubleshooting with educator support.	EL2.a.3.m: Navigate a variety of digital tools to choose, use and troubleshoot technologies to create new knowledge.	EL2.a.4.h: Assess the fundamental concepts of digital tool operations, demonstrate the ability to choose, use and troubleshoot current digital tools.

Standard: EL3 - Students are able to transfer knowledge to explore emerging technologies.				
	Performance Indicators (By Grade Band)			
EL3.a: Transfer knowledge to emerging technology.	EL3.a.1.e: Recognize the patterns in the fundamental operations across a variety of digital tools.	EL3.a.2.i: Transfer learning between digital tools and learning environments.	EL3.a.3.m: Transfer and apply skills to begin troubleshooting and exploring emerging technologies.	EL3.a.4.h: Investigate the creation of new technologies.

Content Area:
Digital Citizen (DC)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Digital Citizen (DC)				
Standard: DC1 - Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
DC1.a: Cultivate and manage digital identity and reputation.	DC1.a.1.e: Recognize how information put online creates a digital footprint and can leave a "trail" online (digital footprint).	DC1.a.4.i: Identify information that should not be shared online because it is private and personal.	DC1.a.7.m: Demonstrate safe digital actions and understand information shared digitally is public and can be searched, copied, and potentially seen by public audiences.	DC1.a.10.h: Manage digital identity and practice positive online responsibilities to avoid inappropriate forms of self-disclosure.
	DC1.a.2.e: Relate positive behavior offline to positive behavior online.	DC1.a.5.i: Identify the traits of a positive and negative online identity.	DC1.a.8.m: Analyze personal online information to distinguish whether it is helpful or harmful to reputation and image, explain why, and reflect on the risks and benefits of presenting their identities in different ways online.	DC1.a.11.h: Choose information to post online that positively affects personal image and future college and career opportunities.

	DC1.a.3.e: Recognize that online information may not be factual.	DC1.a.6.i: Recognize that photos can be altered digitally and identify the pros and cons of alteration.	DC1.a.9.m: Compare and contrast attitudes toward diverse groups regarding editing, posting, and commenting on personal photos posted on social network sites.	DC1.a.12.h: Analyze broader norms and media messages that may frame the way people use, interpret and respond to photos on social network sites and discuss the influence on society.
DC1.b: Manage personal data to maintain digital privacy and security.	DC1.b.1.e: Understand the functions of usernames and passwords.	DC1.b.4.i: Utilize strong and secure passwords to protect private account information.	DC1.b.7.m: Develop strategies to manage secure passwords.	DC1.b.10.h: Utilize secure password protection practices and management.
	DC1.b.2.e: Recognize how personal information creates your identity.	DC1.b.5.i: Demonstrate an understanding of what personal data is, how to keep it private, and how it might be shared online.	DC1.b.8.m: Create and manage strategies to protect personal data and identify and follow online application terms and conditions (such as federal law and common practice relative to terms of service regarding the age 13 requirements) and possible legal consequences.	DC1.b.11.h: Identify situations where data-collection technology is used to track navigation online and decide when it is or is not appropriate.
	DC1.b.3.e: Seek trusted adult if a website asks for any personal information and begin to identify inappropriate content.	DC1.b.6.i: Identify types of information and terms that can put a person at risk for identity theft and other scams, and safely manage unwanted messages.	DC1.b.9.m: Recognize strategies that intend harm and access private information and define the different types of malicious threats, including viruses, phishing, and identity theft.	DC1.b.12.h: Develop strategies to guard against malicious threats including viruses, phishing, and identity theft,and recognize the importance of security protocols.

Standard: DC2 - Students will demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
DC2.a: Use information, media and digital resources in a responsible manner.	DC2.a.1.e: Identify guidelines for acceptable use of Internet and other resources.	DC2.a.2.i: Recognize differences among content consumption, creation, and remixing.	DC2.a.3.m: Demonstrate responsible use of Internet, social media, and other materials, and understand consequences of violating school policy and state/federal law.	DC2.a.4.h: Assess the need for different information policies and user agreements in a variety of settings (i.e. workplace, school, government).
DC2.b: Respect intellectual property rights.	DC2.b.1.e: Recognize intellectual property must be cited.	DC2.b.2.i: Explain and apply the concept of intellectual property rights and how copyrights protect authors and producers.	DC2.b.3.m: Explain the concept of "fair use" as it pertains to copyright law and be able to create citations for print, graphic, audio and digital media resources.	DC2.b.4.h: Describe how to cor respond with authors, publishers, or producers to obtain permission to use copyrighted materials while understanding legal consequences of plagiarism.
DC2.c: Recognize the rights and responsibilities of intellectual freedom in a democratic society.	DC2.c.1.e: Demonstrate respectful discourse, and an understanding of the importance of hearing perspectives different from one's own, with educator guidance.	DC2.c.4.i: Define and explain the concept of intellectual freedom and identify examples of censorship.	DC2.c.7.m: Identify examples and explain the implications of censorship in the United States and in other countries and recognize the free-flow of information helps make informed citizenry decisions for the common good.	DC2.c.10.h: Understand the importance of equitable access to information and recommend strategies for ensuring others have equitable access to information, media, resources, and technology.

	DC2.c.2.e: Explore what information is appropriate to put online with educator guidance.	DC2.c.5.i: Participate responsibly and respectfully in a digital community.	DC2.c.8.m: Identify and describe positive aspects of online communication and the importance of acting responsibly when carrying out relationships over digital media.	DC2.c.11.h: Demonstrate positive and responsible communications in digital communities.
	DC2.c.3.e: Demonstrate respect in social situations.	DC2.c.6.i: Identify and create positive and constructive feedback.	DC2.c.9.m: Discuss the impact that negative comments can have on both their targets and their viewers.	DC2.c.12.h: Recognize free speech, along with constitutional exceptions on free speech, and its impact on individuals, groups, and communities, both online and offline.

Content Area: Knowledge Constructor (KC)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Knowledge Constructor (KC)				
Standard: KC1 - Students critically curate a variety of digital tools and diverse resources.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
KC1.a: Plan and employ effective research strategies.	KC1.a.1.e: Utilize knowledge of the alphabet to search and use databases; use basic keyword search techniques to locate information.	KC1.a.4.i: Explore and use different keyword searches such as using multiple words, synonyms, and alternative words and phrases; and refine searches by drawing inferences to explain-search results.	KC1.a.7.m: Demonstrate and practice a variety of search strategies for effective and efficient online searches.	KC1.a.10.h: Apply safe and effective search strategies across a range of diverse resources.
	KC1.a.2.e: Utilize digital tools and resources contained within a classroom platform or otherwise provided by the educator, to find information on topics of interest.	KC1.a.5.i: Collaborate with an educator to employ appropriate research techniques to locate and access print and digital resources that help in the learning process.	KC1.a.8.m: Demonstrate and practice the ability to effectively utilize research strategies to locate and access appropriate print and digital resources in support of learning.	KC1.a.11.h: Plan and employ effective research strategies to locate and access information and other resources for intellectual or creative pursuits.
	KC1.a.3.e: Follow an inquiry-based process by forming simple questions, and begin exploring ways to answer them using print and digital resources.	KC1.a.6.i: Follow an inquiry-based process by generating questions and exploring different ways to locate and evaluate sources that provide needed information.	KC1.a.9.m: Demonstrate and practice using an inquiry-based process that involves asking questions, investigating the answers, and developing new understandings for personal or academic learning activities.	KC1.a.12.h: Utilize an inquiry-based process to deepen content knowledge, connect academic learning with the real world, pursue personal interests, and investigate opportunities for personal growth.

KC1.b: Evaluate the accuracy, perspective, credibility, and relevance of information, media, data or other resources.	KC1.b.1.e: Explore various websites identifying different information and graphics with educator guidance.	KC1.b.3.i: Evaluate digital resources to determine credibility and accuracy with educator support.	KC1.b.5.m: Practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility, and relevance while distinguishing between fact and opinion in the research.	KC1.b.7.h: Assess the quality of evidence and data found in selected sources on basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context. Evaluate information and graphics for prejudice, false data, misrepresentation and misleading data.
	KC1.b.2.e: Recognize websites can influence decision-making.	KC1.b.4.i: Identify how websites can be used to appeal to different groups to evoke a response and action.	KC1.b.6.m: Recognize the importance of leveraging multiple viewpoints in decision-making and implementation.	KC1.b.8.h: Select information that is related to a problem or question while using formats and genre most appropriate to the content. Establish criteria in judging the information in this process.
KC1.c: Curate information from digital resources.	KC1.c.1.e: Explore a variety of educator-selected, curated content tools to acquire and organize information.	KC1.c.2.i: Organize information from a variety of educator-selected, curated content and make meaningful, thematic connections between resources.	KC1.c.3.m: Locate and collect resources from a variety of sources and organize assets into curated collections for a wide range of audiences, projects, and purposes.	KC1.a.4.h: Locate, collect, and evaluate resources and curated collections from a variety of sources and organize content into themes in ways that are coherent and shareable to multiple audiences.

Standard: KC2 - Students produce creative artifacts and make meaningful learning experiences from curated knowledge for themselves and others.

	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
KC2.a: Produce creative artifacts.	KC2.a.1.e: Explore a variety of educator-selected resources, and with assistance, create an artifact that demonstrates connections to their learning.	KC2.a.2.i: Explore, select, and utilize sources of curated information to produce creative artifacts to make meaningful learning experiences.	KC2.a.3.m: Explore, select, and utilize multiple sources of curated information to produce creative artifacts for multiple audiences demonstrating meaningful connections or conclusions.	KC2.a.4.h: Explore, select, and utilize multiple sources of curated information to produce creative artifacts for multiple audiences, demonstrating meaningful connections or conclusions and consider the value of crowdsourcing, and how it works both online and offline.
KC2.b: Build knowledge by actively exploring real-world issues and problems.	KC2.b.1.e: Build knowledge to connect ideas to your own interests, previous knowledge, and experience.	KC2.b.3.i: Utilize prior and background knowledge as context for inquiry.	KC2.b.5.m: Demonstrate initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.	KC2.b.7.h: Use knowledge, information skills, and digital resources and tools to engage in public conversation and debate around issues of common concern.
	KC2.b.2.e: Explore real-world issues and problems and share their ideas about them with others with educator guidance.	KC2.b.4.i: Connect learning to age-appropriate real-world issues and problems and begin to develop questions for problem solving.	KC2.b.6.m: Explore real-world issues and problems and actively pursue an understanding of them. Begin to develop answers and solutions for problem solving.	KC2.b.8.h: Build knowledge by actively exploring real-world issues and problems, independently developing ideas and theories and pursuing answers and solutions.

Content Area:
Innovative Designer (ID)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Innovative Designer (ID)				
Standard: ID.1 - Students use a variety of digital tools and resources to identify and solve authentic problems using design thinking.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (l)**	**6-8 (m)**	**9-12 (h)**
ID1.a: Find authentic problems in local and global contexts.	ID1.a.1.e: Identify and describe a problem or challenge within the classroom or home environment. Explain why it is a problem.	ID1.a.2.i: Identify and describe problems or challenges that affect the community. Analyze all conditions that make it a problem.	ID1.a.3.m: Collaborate with others outside of the classroom to identify and describe problems and challenges on a global perspective.	ID1.a.4.h: Collaboratively analyze the community locally and globally to make change socially. Explain the depth and breadth of a problem and analyze conditions for improvement.
ID1.b: Exhibit tolerance for ambiguity, perseverance and the capacity to work with authentic, open-ended problems.	ID1.b.1.e: Demonstrate perseverance when working to complete a challenging task.	ID1.b.2.i: Demonstrate perseverance when working with authentic, open-ended problems.	ID1.b.3.m: Demonstrate an ability to persevere through authentic, open-ended problems by applying abstract concepts with greater ambiguity.	ID1.b.4.h: Apply abstract concepts to solve authentic, open-ended problems for a group of stakeholders.

Standard: ID.2 - Students use a variety of technologies within a design process to create new, useful, and imaginative solutions.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
ID2.a: Know and use a deliberate design process for generating ideas, testing theories, and creating innovative artifacts and solutions.	ID2.a.1.e: Ask questions to seek understanding of an issue or problem and suggest possible solutions.	ID2.a.2.i: Explore and practice how a deliberate design process works to generate ideas, considers solutions, plans to solve a problem, and creates innovative products to share with others.	ID2.a.3.m: Use a deliberate design process to generate ideas, create innovative products, and test theories as possible solutions.	ID2.a.4.h: Select and use a deliberate design process for generating ideas, testing theories, and creating innovative artifacts.
ID2.b: Select and use digital resources to plan and manage a design process that considers design constraints and calculated risks.	ID2.b.1.e: Use age-appropriate digital resources to employ guided practice of a formal design process.	ID2.b.2.i: Use age-appropriate digital resources to plan and manage the design process.	ID2.b.3.m: Select and use digital resources to support a formal design process and expand understanding to identify constraints and trade-offs while weighing risks as they apply to authentic problems.	ID2.b.4.h: Select and use digital resources to plan and manage a design process that considers design constraints and calculated risks as they apply to authentic problems.
ID2.c: Develop, test, and refine prototypes as part of a cyclical design process.	ID2.c.1.e: Use a guided design process to create, test, and redesign prototypes, if necessary.	ID2.c.2.i: Engage in an iterative process to develop and test prototypes and reflect on the role that trial and error plays in the design process.	ID2.c.3.m: Engage in an iterative process to develop and test prototypes; understand and appreciate that failures or setbacks are opportunities for growth and improvement.	ID2.c.4.h: Engage in an iterative process to develop and test prototypes. Apply this process to marketplaces, determine the metrics for success and progress monitoring, and understand that no product is final or perfect.

Content Area: Computational Thinker (CT)

Discipline: Information and Technology Literacy (ITL)				
Content Area: Computational Thinking (CT)				
Standard: CT1 - Students develop and employ strategies for understanding and solving problems.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
CT1.a: **Identify, define, and interpret problems where digital tools can assist in finding solutions.**	CT1.a.1.e: Identify a problem and use digital tools to explore and find solutions.	CT1.a.2.i: Identify problems and select appropriate digital tools to analyze and explore solutions.	CT1.a.3.m: Define and solve an authentic problem using data analysis, modeling, and algorithmic thinking.	CT1.a.4.h: Create and articulate a precise and thorough description of a problem designed to utilize digital tools, data analysis, abstract modeling, or algorithmic thinking to facilitate a solution.
CT1.b: **Collect data, then identify and use digital tools to analyze and represent the data to find solutions.**	CT1.b.1.e: Utilize age-appropriate digital tools to collect, organize, and represent data.	CT1.b.2.i: Utilize age-appropriate digital tools to collect data, design, code, test and verify possible solutions collect and represent data to discuss results and share conclusions.	CT1.b.3.m: Select an effective digital tool to collect data, design, code, test and verify possible solutions to reflect on the data to solve authentic problems.	CT1.b.4.h: Select an effective digital tool to collect data, design, code, test and verify possible solutions to reflect on the data to solve authentic problems.

CT1.c: Break problems into smaller parts, identify key information, and develop descriptive models.	CT1.c.1.e Separate a simple problem into smaller parts, identify key information, and brainstorm ways to solve the problem.	CT1.c.2.i: Separate problems into smaller parts, identify patterns and key information, and brainstorm ways to solve problems.	CT1.c.3.m: Separate authentic problems into component parts, identify patterns and differences and develop descriptive models to facilitate problem solving.	CT1.c.4.h: Evaluate the problem solving process and algorithms of others, and synthesize this information to create the most effective and efficient way to solve an authentic problem.

Content Area:
Creative Communicator (CC)

Discipline: Information and Technology Literacy (ITL)

Content Area: Creative Communicator (CC)

Standard: CC1 - 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.

	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
CC1.a: **Choose appropriate platforms and digital tools.**	CC1.a.1.e: Use age-appropriate digital tools for producing new creations or published communications with educator guidance.	CC1.a.2.i: Evaluate and utilize the features and functions of a variety of digital tools for producing new creations or communications with educator support.	CC1.a.3.m: Evaluate and utilize the features and functions of a variety of digital tools and platforms to create, share, and communicate content effectively.	CC1.a.4.h: Evaluate and determine appropriate platforms and digital tools to create, communicate, and share content effectively with an authentic audience.
CC1.b: Create or remix digital resources.	CC1.b.1.e: Recognize the differences between original and remixed digital work. Use digital tools, with educator guidance, to create original and remixed work.	CC1.b.2.i: Differentiate between original and remixed digital work. Apply strategies to responsibly remix creative work.	CC1.b.3.m: Remix digital content responsibly into new, creative work.	CC1.b.4.h: Create works for an authentic audience that reflect responsible remixing of digital and Fair Use content.
CC1.c: **Communicate effectively using a variety of digital tools.**	CC1.c.1.e: Communicate ideas using a variety of digital tools with educator guidance.	CC1.c.2.i: Create digital artifacts to communicate ideas clearly.	CC1.c.3.m: Communicate complex ideas clearly using various digital tools to an authentic audience.	CC1.c.4.h: Utilize digital tools to analyze, modify, and communicate complex ideas, data, and solutions to an authentic audience.

Standard: CC2 - Students publish and present content customized for their audience(s), purpose, and task.				
	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
CC2.a: **Publish and present content.**	CC2.a.1.e: Identify audiences and appropriate communication strategies.	CC2.a.2.i: Recognize the impact of the audience, purpose, and task when publishing and presenting content.	CC2.a.3.m: Publish and present content that will effectively convey ideas to an authentic audience.	CC2.a.4.h: Intentionally align message with audience, purpose, and task when publishing and presenting content.

Content Area:
Global Collaborator (GC)

Discipline: Information and Technology Literacy (ITL)

Content Area: Global Collaborator (GC)

Standard: GC1 - Students use digital tools to broaden their perspectives and enrich their learning with culturally responsive practices by collaborating and working effectively with local and global teams.

	Performance Indicators (By Grade Band)			
Learning Priority	**K-2 (e)**	**3-5 (i)**	**6-8 (m)**	**9-12 (h)**
GC1.a: Use digital tools to connect with learners from a variety of backgrounds and cultures.	GC1.a.1.e: Use digital tools and resources to understand similarities and differences of others in the classroom and beyond.	GC1.a.2.i: Use digital tools to create connections with an authentic audience from diverse backgrounds or cultures.	GC1.a.3.m: Use digital tools to interact with others to develop a richer understanding of diverse perspectives and cultures.	GC1.a.4.h: 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.
GC1.b: Contribute constructively on project teams.	GC1.b.1.e: Learn a variety of roles within a team to cooperate.	GC1.b.2.i: Explore and participate in a variety of roles within a team using age-appropriate digital tools to complete a project or solve a problem.	GC1.b.3.m: Contribute and commit to team goals and determine role on the team based on knowledge of digital tools and content, as well as personal preference.	GC1.b.4.h: Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
GC1.c: Contribute to the exchange of ideas within and beyond the learning community.	GC1.c.1.e: Share interests and experiences with one result being an understanding of different perspectives, with educator guidance.	GC1.c.2.i: Use appropriate digital tools, to gain an understanding of different perspectives and experiences from others, with educator support.	GC1.c.3.m: Select and leverage appropriate digital tools to share interests, to gain an understanding of different perspectives and experiences from others.	GC1.c.4.h: Select and leverage appropriate digital tools to contribute to and collect information from the exchange of ideas within and beyond the learning community.

Standard: GC2 - Students use digital tools to connect with a global network of learners and engage with issues that impact local and global communities.				
GC2.a: Use collaborative digital resources to examine issues and problems from diverse local and global perspectives.	GC2.a.1.e: Use pre-selected digital tools to communicate with others and to look at problems from diverse local and global perspectives.	GC2.a.2.i: Select and utilize collaborative digital tools to connect with others - including peers, experts and community members - to explore diverse local and global perspectives.	GC2.a.3.m: Leverage collaborative digital tools to connect with others - including peers, experts, and community members - to learn about issues and problems or to gain diverse local and global perspectives.	GC2.a.4.h: Leverage collaborative digital tools to work with others - including peers, experts and community members - to learn about issues and problems and to solicit diverse local and global perspectives to discuss solutions for social change.
GC2.b: Explore local and global issues and use collaborative digital resources to investigate and develop solutions.	GC2.b.1.e: Use pre-selected digital tools to work together to understand issues and recommend solutions.	GC2.b.2.i: Collaborate with others using digital tools to explore local and global issues and solutions.	GC2.b.3.m: Select and use collaborative digital tools to work with others to explore local and global issues and investigate solutions.	GC2.b.4.h: Explore and analyze local and global issues and leverage collaborative digital tools to work with others to investigate, develop, and actualize solutions.