

9-12

Empowered Learner: Students use technology to take an active role in their learning. **EL**

1 Leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. **EL1**

- 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. **EL1.A**
 - 1** Set and articulate personal learning goals and develop strategies leveraging digital tools to achieve those goals. **2.** Reflect on successes, areas of improvement, and make necessary revisions to improve the learning over time and adjust for future learning. **EL1.A.1**
- B** Build networks and customize their learning environments in ways that support the learning process. **EL1.B**
 - 1** Initiate collaboration with a network of global partners ex.: students, teachers, professionals, or the global community to support and enhance the learning process. **EL1.B.1**
- C** Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways. **EL1.C**
 - 1** Seek feedback independently through the use of technology ex.: use video chat to share and reflect upon a learning process or product . **EL1.C.1**
 - 2** Use feedback to effectively demonstrate learning in a variety of ways. **EL1.C.2**
- D** Understanding the fundamental concepts of how to use technology technology operations . **EL1.D**
 - 1** Understand the fundamental use of technology tools to embrace creativity, communication, collaboration, and critical thinking. **EL1.D.1**
 - 2** Choose and effectively troubleshoot technology tools to suit purpose. **EL1.D.2**
 - 3** Transfer and extend the knowledge of existing technology to explore new technologies. **EL1.D.3**

2 Apply the fundamental concepts of technology operations and demonstrate the ability to choose, use, and/or troubleshoot current technologies. **EL2**

- A** Demonstrate learning with the use of technology. **EL2.A**
 - 1** Select appropriate digital resources to develop, implement and/or evaluate communication with an authentic audience. **EL2.A.1**

- B** Apply functions and concepts of technology operations; demonstrate the ability to choose, use and troubleshoot current technologies. **EL2.B**
 - 1 Choose efficient functions and concepts appropriate to their task and purpose.
 - 2. Apply an understanding of devices to troubleshoot current technology and adjust for future events. **EL2.B.1**
 - C** Transfer knowledge to emerging technology. **EL2.C**
 - 1 Apply and adapt knowledge of existing technology to the innovative redefinition-based use of new technologies. **EL2.C.1**
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Digital Citizen: Students manage their digital identity in a safe, positive, and proactive way. **DC**

- 1 Recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world; act and model in ways that are safe, legal and ethical. **DC1****
 - A** Cultivate and manage your digital identity and reputation, and be aware of the permanence of your actions in the digital world. **DC1.A**
 - 1 Actively develop and maintain a positive, authentic digital identity and presence. **DC1.A.1**
 - 2 Comprehend the permanence of actions in the digital world and their potential visibility to future employers, colleagues and social relations. **DC1.A.2**
 - B** Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices. **DC1.B**
 - 1 Make responsible decisions based on ethical standards, positive social behavior and the safety of oneself and others when interacting and collaborating in a digital world. **DC1.B.1**
 - 2 Understand the mental and legal ramifications of cyber bullying and harassment; employ strategies to avoid and/or combat cyberbullying and harassment. **DC1.B.2**
 - C** Manage personal data to maintain digital privacy and security and are aware of data-collection technology used to track navigation online. **DC1.C**
 - 1 Think critically about the information shared in an online environment in order to keep sensitive personal information safe and secure. **DC1.C.1**
 - 2 Comprehend the presence and ramifications of online data collection and how it is used to track online navigation and influence consumer decisions. **DC1.C.2**
 - 2 Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **DC2****
 - A** Use information, media, and digital resources in a responsible manner. **DC2.A**
 - 1 Understand the need for, and comply with, acceptable user policies and agreements. **DC2.A.1**
 - 2 Make responsible decisions in the use of information, media, social media and other digital resources in accordance with acceptable user policies and agreements. **DC2.A.2**
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- B** Respect intellectual property rights. **DC2.B**
 - 1** Respect the importance of intellectual property in encouraging thought, design, innovation and/or creation. **DC2.B.1**
 - 2** Use, share and/or interact with intellectual property in accordance with the rights given by the owner of the intellectual property. **DC2.B.2**
 - C** Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **DC2.C**
 - 1** Apply understanding of "fair use" and copyright laws when sharing the intellectual property of others, as well as, when producing new intellectual property. **DC2.C.1**
 - 2** Seek permission and properly cite the usage of the intellectual property of others. **DC2.C.2**
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**Knowledge
Constructor: Students
use various digital tools
to find information and
make meaning. **KC****

- 1 Students critically curate a variety of resources using digital tools to construct knowledge. **KC1****
 - A** Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. **KC1.A**
 - 1** Utilize a variety of digital resources effectively and safely by applying a variety of search strategies ex.: filtering searches, advanced settings/tools, file types, database/source selection . **KC1.A.1**
 - 2** Plan and use multiple research strategies to locate information from digital resources for a variety of purposes. **KC1.A.2**
 - B** Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. **KC1.B**
 - 1** Evaluate digital sources for accuracy of information; compare and consider the perspectives of the sources; determine usefulness, and assess the credibility of the sources. **KC1.B.1**
 - C** Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. **KC1.C**
 - 1** Use multiple digital tools to select, organize, and communicate information from digital sources. **KC1.C.1**
 - 2** Utilize digital tools to communicate information in real world applications, to address or solve a problem, or to make meaningful connections. **KC1.C.2**
 - 2 Produce creative artifacts and make meaningful learning experiences from curated knowledge for themselves and others. **KC2****
 - A** Produce creative artifacts. **KC2.A**
 - 1** Choose and use digital tools to create products that exhibit choice and creativity. **KC2.A.1**
 - 2** Create products independently and collaboratively that incorporate creative elements, and communicate to multiple audiences. **KC2.A.2**
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- B** Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. **KC2.B**
 - 1** Select and use digital tools to create products that demonstrate meaningful connections or conclusions. **KC2.B.1**
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Innovative Designer: Students use a variety of technologies to design and create. **ID**

- 1 Use a variety of technologies to identify and solve authentic real-world problems.** **ID1**
 - A** Find authentic real-world problems in local and global contexts. **ID1.A**
 - 1** Use a variety of technologies to independently identify real-world problems in the local and global community. **ID1.A.1**
 - B** Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. **ID1.B**
 - 1** Use a variety of technologies to independently demonstrate perseverance when dealing with ambiguous and open-ended problems. **ID1.B.1**
 - 2 Use a variety of technologies within a design process to create new, useful and imaginative solutions.** **ID2**
 - A** Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. **ID2.A**
 - 1** Self-select and use a variety of digital tools within a deliberate process for generating ideas, researching, and testing ideas for solving problems or creating original products that demonstrate understanding. **ID2.A.1**
 - B** Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks. **ID2.B**
 - 1** Self-select and use appropriate digital tools to manage work and create original products that take into consideration project constraints, obstacles and outcomes. **ID2.B.1**
 - C** Develop, test and refine prototypes as part of a cyclical design process. **ID2.C**
 - 1** Select and use a variety of digital tools to aid in working collaboratively or independently to create, test and refine prototypes, drafts and concepts based on self-initiated feedback and reflection in design cycles. **ID2.C.1**
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Create products independently and collaboratively that explore real-world issues and problems and engage in discussion around current issues. **KC2.B.2**

- 2 Create products independently and collaboratively that explore real-world issues and problems and engage in discussion around current issues.** **KC2.B.2**
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Computational Thinker: Students understand sequences

- 1 Develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.** **CT1**

and use them to develop solutions to problems. CT

- A Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions. CT1.A
 - 1 Precisely define a problem and develop a solution using digital tools, conducting data analysis, abstract models, and algorithmic thinking. CT1.A.1
- 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. CT1.B
 - 1 Use digital tools to effectively collect, organize, and manipulate data to test, verify, and present possible solutions to a problem. CT1.B.1
- C Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving. CT1.C
 - 1 Evaluate the problem-solving process to deconstruct data and information to develop effective solutions to real-world problems. CT1.C.1
- D Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions. CT1.D
 - 1 Demonstrate their understanding of automation and logic to develop a process to create and verify automated solutions. CT1.D.1

2 Apply strategies for understanding and solving problems by using technological methods to develop and test solutions. CT2

- A Use resources to collect, analyze, and represent data. CT2.A
 - 1 Use digital tools to collect relevant data, conduct analysis, and prepare data for presentation to facilitate problem-solving and decision-making. CT2.A.1
- B Deconstruct components to understand systems and facilitate problem-solving. CT2.B
 - 1 Use technology-assisted methods to more easily identify key information by breaking down data to facilitate problem-solving. CT2.B.1
- C Create and test automated solutions. CT2.C
 - 1 Use digital tools and algorithmic thinking to develop automated systems to test solutions. CT2.C.1

Creative Communicator: Students communicate clearly and express themselves with a variety of digital tools. CC

- 1 **Communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals, audience and task.** CC1
 - A Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. CC1.A
 - 1 Evaluate and determine appropriate platforms and digital tools to create or share digital content with an authentic audience for a desired purpose. CC1.A.1

- B** Create original works or responsibly repurpose and/or remix digital resources into new creations. **CC1.B**
 - 1** Create work for an authentic audience and desired purpose that reflects a responsible repurposing of digital media or resources. **CC1.B.1**
- C** Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations. **CC1.C**
 - 1** Analyze and communicate complex ideas, data, or solutions to an authentic audience for a desired purpose using digital tools. **CC1.C.1**

2 Publish and present content customized for their audience s , purpose, and task. CC2

- A** Publish and present content that customizes the message and medium for their intended audiences. **CC2.A**
 - 1** Present an idea or creative work that expresses ideas or content that is published for a range of authentic audiences outside of the classroom. **CC2.A.1**

Global Collaborator: Students use digital tools to connect with learners inside and outside of their classroom. GC

1 Use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. GC1

- 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. **GC1.A**
 - 1** Evaluate and use digital collaboration tools to connect with others from a variety of local and global backgrounds/cultures in order to exchange ideas, develop an understanding of diverse perspectives and encourage learning. **GC1.A.1**
- B** Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. **GC1.B**
 - 1** Use digital tools to contribute to a project team, determine their role and responsibility within the group and work toward a common goal or a solution to a problem. **GC1.B.1**
- C** Contribute to the exchange of ideas within and beyond the learning community. **GC1.C**
 - 1** Select digital tools to share and exchange interests, ideas and experiences with others from within and beyond the local learning community. **GC1.C.1**

2 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 technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints. **GC2.A**
 - 1** Use collaborative technologies to work with others peers, experts, community members to gain knowledge about issues through various perspectives and opinions and to find solutions for social change. **GC2.A.1**

B Explore local and global issues and use collaborative technologies to work with others to investigate solutions. **GC2.B**

1 Explore and analyze local and global issues and use collaborative digital tools to investigate, develop a plan and recommend solutions. **GC2.B.1**