

# Grades 9-12

**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. **1**

- a** Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes. **1.A.**

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- b** Students build networks and customize their learning environments in ways that support the learning process. **1.B.**

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- c** Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways. **1.C.**

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- d** Students 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. **1.D.**

**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. **2**

- a** Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world. **2.A.**

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- b** Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices. **2.B.**

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- c** Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **2.C.**

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- d** Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online **2.D.**

**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. **3**

- a** Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. **3.A.**

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- b** Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. **3.B.**

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- c** Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. **3.C.**

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- d** Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. **3.D.**

**Innovative Designer -**  
Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. 4

- a** Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. 4.A.
- b** Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks. 4.B.
- c** Students develop, test and refine prototypes as part of a cyclical design process. 4.C.
- d** Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. 4.D.

**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. 5

- a** Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions. 5.A.
- b** Students 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. 5.B.
- c** Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving. 5.C.
- d** Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions. 5.D.

**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. 6

- a** Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. 6.A.
- b** Students create original works or responsibly repurpose or remix digital resources into new creations. 6.B.
- c** Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations. 6.C.
- d** Students publish or present content that customizes the message and medium for their intended audiences. 6.D.

**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. 7

- a** Students 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. 7.A.
- b** Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints. 7.B.
- c** Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. 7.C.

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**d Students explore local and global issues and use collaborative technologies to work with others to investigate solutions. 7.D.**