Virginia Digital Learning Integration

Grades 9-12

Empowered Learner (EL) 9-12.1

1 **Students leverage technologies, including assistive technologies, to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.** 9-12.1.1

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. 9-12.1.1.A

1 Students articulate and set personal learning goals, develop strategies, advocate for the appropriate technologies needed to achieve them, and reflect on the learning process itself to improve learning outcomes. 9-12.1.1.A.1

B Build networks and customize their learning environments in ways that support the learning process. 9-12.1.1.B

1 Students autonomously customize and build their learning community and environments in ways that support the learning process. 9-12.1.1.B.1

C Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways. 9-12.1.1.C

1 Students seek feedback from people and staff familiar with assistive technologies, and evaluate and use appropriate technologies for additional feedback to make changes to improve and demonstrate their learning. 9-12.1.1.C.1

D Understand the various fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot technologies and transfer knowledge to explore emerging technologies. 9-12.1.1.D

1 Students understand the various fundamental concepts of appropriate technologies; demonstrate the ability to choose, use, and troubleshoot technologies, and transfer knowledge to explore emerging technologies. 9-12.1.1.D.1

Digital Citizen (DC) 9-12.2

1 **Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal, and ethical.** 9-12.2.1

A Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world. 9-12.2.1.A

1 Students autonomously curate their digital identities and portfolio while acknowledging and understanding the long-term effects of their virtual actions. 9-12.2.1.A.1

B Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. 9-12.2.1.B

1 Students participate in collaboration and communication with local and/or global communities using positive, safe, legal, and ethical habits (established behaviors). 9-12.2.1.B.1

C Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. 9-12.2.1.C

1 Students appropriately use, cite, and share digital and print intellectual property according to copyright / Fair Use Doctrine. 9-12.2.1.C.1

D Manage their personal data to maintain digital privacy and security and are aware of datacollection technology used to track their activity online. 9-12.2.1.D

1 Students practice safe and responsible sharing of their personal data online while learning how it is collected, stored online, and what is publicly available. 9-12.2.1.D.1

Knowledge Constructor (KC) 9-12.3

1 **Students critically curate a variety of digital resources using appropriate technologies, including assistive technologies, to construct knowledge, produce creative digital works, and make meaningful learning experiences for themselves and others.** 9-12.3.1

A Plan and employ effective research strategies to locate information and other digital sources for their intellectual or creative pursuits. 9-12.3.1.A

1 Students plan and employ effective research strategies to deepen content knowledge, connect academic learning with the real world, pursue personal interests, and investigate opportunities for personal growth. 9-12.3.1.A.1

B Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, and other digital sources. 9-12.3.1.B

1 Students assess the quality of evidence and data found in selected digital sources based on accuracy, validity, appropriateness for needs, importance, and social and cultural context. Students evaluate information and graphics for prejudice, false data. 9-12.3.1.B.1

C Curate information from digital sources using a variety of tools and methods to create collections of resources that demonstrate meaningful connections or conclusions. 9-12.3.1.C

1 Students locate, collect, and evaluate a variety of digital sources and organize resources into themes in ways that are coherent and shareable to multiple audiences. 9-12.3.1.C.1

D Actively explore real-world issues and problems, develop ideas and theories, and pursue answers and solutions. 9-12.3.1.D

1 Students use knowledge, information skills, and digital resources and tools to engage in public conversation and/or debate realworld issues. 9-12.3.1.D.1

Innovative Designer (ID) 9-12.4

1 **Students use a variety of technologies, including assistive technologies, within a design process to identify and solve problems by creating new, useful or**

imaginative solutions or iterations. 9-12.4.1

A Know and use appropriate technologies in a purposeful design process for generating ideas, testing theories, creating innovative digital works, or solving authentic problems. 9-12.4.1.A

1 Students autonomously select and use appropriate technologies in a design process to generate ideas, create, document, test, revise, and present innovative products or solve authentic problems. 9-12.4.1.A.1

B Select and use appropriate technologies to plan and manage a design process that considers design constraints and calculated risks. 9-12.4.1.B

1 Students autonomously select and use appropriate technologies to plan and manage a design process that identifies design constraints and trade-offs and weighs risks. 9-12.4.1.B.1

C Use appropriate technologies to develop, test, and refine prototypes as part of a cyclical design process. 9-12.4.1.C

1 Students autonomously select and use appropriate technologies in a cyclical design process to develop, test, and refine prototypes understanding the role of trial and error and setbacks as potential opportunities for improvement. 9-12.4.1.C.1

D Exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems. 9-12.4.1.D

1 Students autonomously demonstrate an ability to persevere through difficulties and ambiguity in solving openended problems. 9-12.4.1.D.1

Computational Thinker (CT) 9-12.5

1 **Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods, including those that leverage assistive technologies, to develop and test solutions.** 9-12.5.1

A Formulate problem definitions suited for technologyassisted methods such as data analysis, modeling and algorithmic thinking in exploring and finding solutions. 9-12.5.1.A

1 Students demonstrate how to identify, explore, and solve a real-world problem using technologyassisted methods such as data analysis, modeling, or algorithmic thinking. 9-12.5.1.A.1

B Collect data or identify relevant data sets, use appropriate technologies to analyze them, and represent data in various ways to facilitate problemsolving and decision-making. 9-12.5.1.B

1 Students use appropriate technologies to collect, organize, interpret, and analyze data sets to predict outcomes, draw conclusions, solve problems, and make evidence-based decisions. 9-12.5.1.B.1

C Break problems into component parts, extract key information, and develop descriptive models, using technologies when appropriate, to understand complex systems or facilitate problem-solving. 9-12.5.1.C

1 Students evaluate a task in terms of sub problems needed and make changes to address issues or changing task needs using technologies, when appropriate. 9-12.5.1.C.1

D Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions. 9-12.5.1.D

1 Students evaluate a task to be automated and describe the technology used in the process. 9-12.5.1.D.1

Creative Communicator (CC) 9-12.6

1 **Students communicate clearly and express themselves creatively for a variety of purposes using appropriate technologies (including assistive technologies), styles, formats, and digital media appropriate to their goals.** 9-12.6.1

A Choose the appropriate technologies and resources for meeting the desired objectives of their creation or communication. 9-12.6.1.A

1 Students select and use appropriate technologies to meet their communication needs considering goals, audience, content, available technologies or devices, and timing of communication. 9-12.6.1.A.1

B Create original works or responsibly repurpose or remix digital resources into new creations. 9-12.6.1.B

1 Students use multiple appropriate technologies to create new digital work or repurpose/remix other digital work into new digital works to support a point of view. 9-12.6.1.B.1

C Communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations. 9-12.6.1.C

1 Students use design technologies to create and communicate various representations of a complex idea in a subject area. 9-12.6.1.C.1

D Publish or present content that customizes the message and medium for the intended audiences. 9-12.6.1.D

1 Students collaborate with available experts on final presentations, especially with the analysis and evaluation of how audiences receive or interpret content. 9-12.6.1.D.1

Global Collaborator (GC) 9-12.7

1 **Students use appropriate technologies, including assistive technologies, to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.** 9-12.7.1

A Use appropriate technologies to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning. 9-12.7.1.A

1 Students use appropriate technologies to connect with others in places around the world for broader understanding and learning toward common goals. 9-12.7.1.A.1

B Use collaborative technologies to work with others, including peers, experts, and community members to examine issues and problems from multiple viewpoints. 9-12.7.1.B

1 Students use collaborative technologies to work with others, including peers, experts, and online community members to gain global perspectives as they examine issues, problems, and opportunities. 9-12.7.1.B.1

C Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. 9-12.7.1.C

1 Students determine their role on a team and use project management tools to organize and monitor individual and group work and reflect on participation and completion of a common goal. 9-12.7.1.C.1

D Explore local and global issues and use collaborative technologies to work with others to investigate solutions. 9-12.7.1.D

1 Students use collaborative technologies to understand problems, investigate, and develop solutions related to local and global issues, and advocate for implementation of solutions. 9-12.7.1.D.1