

Kentucky Technology

# Grades 6-8

## Empowered Learner **EL**

### Students use technology to take an active role in their learning.

- 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 personal learning goals and select and manage digital tools that will best support individualized learning ex.: use collaborative documents to revise and reflect on the writing process . **EL1.A.1**
    - 2 Reflect on successes, areas of improvement, and make necessary revisions to improve the learning over time ex.: using digital writing portfolio and reflection log/journal . **EL1.A.2**
  - B Build networks and customize their learning environments in ways that support the learning process. **EL1.B**
    - 1 Collaborate with a network of self-selected global partners ex.: students, teachers, professionals, and the global community to customize and support the individual 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 from an authentic audience and from features embedded in digital tools ex.: share documents with teachers and peers asking for feedback on writing . **EL1.C.1**
    - 2 Use feedback to analyze data and make learning adjustments based on the feedback. **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 consider how to use technology to promote creativity, communication, collaboration, and critical thinking. **EL1.D.1**
    - 2 Choose and troubleshoot technology tools to suit purpose. **EL1.D.2**
    - 3 Transfer 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 Evaluate the effectiveness of different digital tools to communicate information with multiple audiences. **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 functions and operations appropriate to their task and purpose. [EL2.B.1](#)
  - C Transfer knowledge to emerging technology. [EL2.C](#)
    - 1 Apply and adapt knowledge of existing technology to the modification-based use of new technologies. [EL2.C.1](#)
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**Students manage their digital identity in a safe, positive, and proactive way.**

- 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 Recognize behaviors, habits, and actions that create, maintain, and influence both positive and negative digital identities, reputations, and footprints in the digital world. DC1.A.1
    - 2 Build awareness of public and permanent nature of online actions and the possible present and future consequences in personal, academic, and professional lives. 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 Recognize and demonstrate responsible behaviors that are safe, ethical, and legal across a variety of devices, platforms, and settings while considering possible consequences for themselves and/or others. DC1.B.1
    - 2 Understand how to be respectful to others online while interacting, communicating, and collaborating and know strategies in order to avoid and/or combat cyberbullying. DC1.B.2
  - C Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. DC1.C
    - 1 Distinguish between information that is public and personal/private and develop and utilize strategies to secure and protect personal/private data and user accounts. DC1.C.1
    - 2 Understand that data-collection technology is used to track online navigation and recognize and avoid online scams and phishing. 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 Demonstrate acceptable use of the internet, information, media and digital resources, including social media according to user agreements, policies, and laws. DC2.A.1
  - B Respect intellectual property rights. DC2.B
    - 1 Recognize and respect different intellectual property classifications, including those that are copyrighted, subject to fair use, public domain properties, and/or have creative commons licenses. DC2.B.1
  - C Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. DC2.C
    - 1 Recognize and seek permission to use the intellectual property of others appropriately. DC2.C.1

- 2 Use and share the intellectual property of others with proper citation and attribution elements. **DC2.C.2**
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**Knowledge  
Constructor** **KC**

**Students use various digital tools to find information and make meaning.**

- 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 Demonstrate effective digital search techniques ex.: filtering searches using advanced settings/tools, keyword/term choices, or phrases to locate information or other resources to gather specific information on a subject or research topic. **KC1.A.1**
      - 2 Practice research strategies that outline a process for locating information digitally ex.: tools and effective search techniques . **KC1.A.2**
    - B Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. **KC1.B**
      - 1 Select a method, tool, or strategy to evaluate source s for credibility, relevance, authority, accuracy, and perspective. **KC1.B.1**
      - 2 Analyze digital information, media, data, and materials for credibility, relevance, authority, accuracy, and perspective. **KC1.B.2**
    - 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 Combine various tools ex.: spreadsheet, database, saved files and methods ex.: concept mapping, flow charting and outlining software to classify information, observations, or experiments digitally. **KC1.C.1**
      - 2 Compile information from digital resources ex.: search engines, online periodical databases, virtual library/online catalogs, interactive video conferencing . **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 Demonstrate the ability to create new ideas/concepts or products with digital tools. **KC2.A.1**
    - B Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. **KC2.B**
      - 1 Build knowledge by generating and testing solutions for exploring real world issues using a variety of technology ex.: data collection tools, models, videos, podcast, simulations, forms . **KC2.B.1**
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**Students use a variety of technologies to design and create.**

- 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** Collaborate with others in and out of the classroom using digital tools to identify real-world problems and propose a solution that affects 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** Demonstrate the ability to investigate and make sense of open-ended problems using digital tools and persevere in solving them. **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** Explore and choose appropriate processes and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems. **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** Investigate and use meaningful digital tools to plan and manage a design process that considers design constraints and calculated risks. **ID2.B.1**
    - C** Develop, test and refine prototypes as part of a cyclical design process. **ID2.C**
      - 1** Create, develop and test prototypes; understand and appreciate that failures are opportunities for growth and improvement. **ID2.C.1**
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**Computational  
Thinker** CT

**Students understand sequences and use them to develop solutions to problems.**

- 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
    - 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 Ask questions, gather data, create/observe abstract models, and think of different processes while finding solutions to real-world problems. 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 Solve problems and make decisions by collecting data or identifying relevant data sets, using digital tools ex.: sheets, surveys to analyze the data, and represent their findings through various ways. 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 Break problems into parts, extract key information, and develop descriptive models to understand complex systems or lead problem solving tasks. 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 Use digital tools to collect data, conduct analysis, and discuss findings or possible 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 ask questions to an audience and digitally collect data, and analyze the findings. CT2.A.1
    - B Deconstruct components to understand systems and facilitate problem-solving. CT2.B
      - 1 Use technology-assisted methods to break problems down into smaller, more manageable parts by finding patterns or other methods of decomposition. CT2.B.1
    - C Create and test automated solutions. CT2.C
      - 1 Use algorithm design to develop step-by-step instructions for solving a problem. CT2.C.1
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**Students communicate clearly and express themselves with a variety of digital tools.**

- 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 Choose from available platforms and tools to meet the designated objectives of their creation or communication. **CC1.A.1**
    - B Create original works or responsibly repurpose and/or remix digital resources into new creations. **CC1.B**
      - 1 Create original works, or repurpose/remix digital resources into new creations, while demonstrating an understanding of digital citizenship ex.: intellectual property rights or copyrights . **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 Create or incorporate digital content to communicate complex ideas clearly and effectively to a variety of audiences. **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 Publish or present original content to a predetermined audience that appropriately customizes the message and medium. **CC2.A.1**
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**Students use digital tools to connect with learners inside and outside of their classroom.**

- 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 Use digital tools and resources to connect and collaborate with authentic audiences from various backgrounds and cultures to broaden mutual understanding and learning, while using appropriate digital citizenship skills. GC1.A.1
  - B Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. GC1.B
    - 1 Select and use digital tools in diverse collaborative teams within the classroom, assuming specific roles, responsibilities, and perspectives other than your own, to contribute effectively toward a common goal. GC1.B.1
  - C Contribute to the exchange of ideas within and beyond the learning community. GC1.C
    - 1 Select and use digital tools in diverse collaborative teams outside the classroom, assuming specific roles, responsibilities, and perspectives other than their own, to contribute effectively toward a common goal. 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 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.1
  - B Explore local and global issues and use collaborative technologies to work with others to investigate solutions. GC2.B
    - 1 Use collaborative technologies and assume roles within digital creations while maintaining digital citizenship within the team digital workspace to investigate and develop solutions to local and global issues. GC2.B.1