South Dakota K-12 Educational Technology Standards

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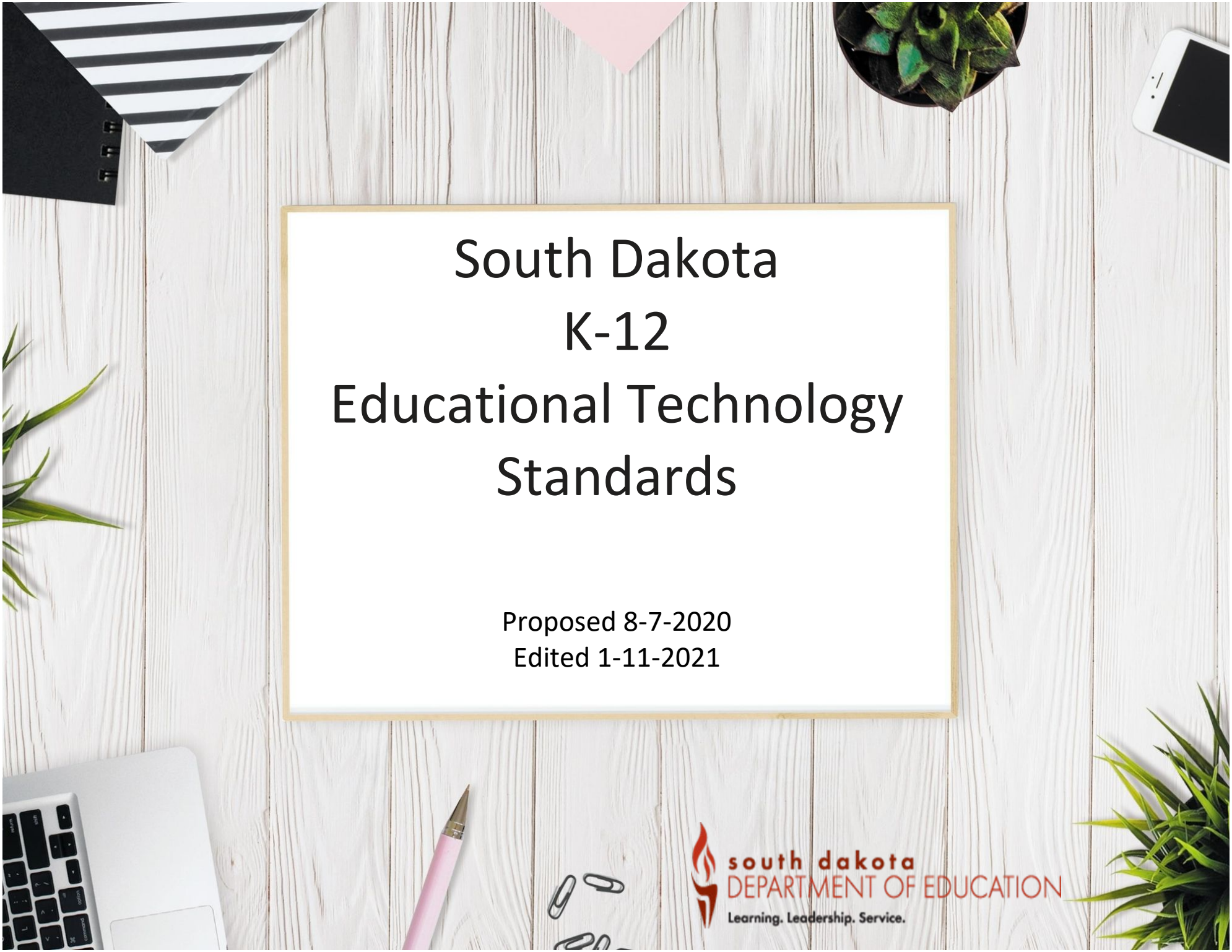

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Table of Contents

South Dakota Educational Technology Standards and Grade-level Outcomes for K-12

Acknowledgements

The creation of South Dakota Educational Technology Standards is a result of the contributions of many educators from across the state. Many hours were devoted to research and thoughtful consideration to ensure the standards would reflect rigorous technology teaching and opportunities for students to learn important technology concepts and procedures with understanding.

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Introduction

Goals

These standards are to be used as a guide for curriculum to integrate technology into classrooms for all content areas, Kindergarten through 12th grade. While standards are the core that all students should learn and master, all teachers will expand upon these standards and introduce related concepts and skills to students in all stages of Instruction.

The Educational Technology Standards Committee developed these standards based on several themes that all teachers and students should include throughout the learning process:

1. Access and application of technology supports every subject area. Educational Technology should be available to every South Dakota student K through 12.

2. Using technology is a human process and should include a focus on how students learn to communicate and collaborate with diverse audiences.

3. Students learn, develop, apply problem-solving, and collaboration skills through problem-based learning opportunities utilizing technology.

4. Technology literacy is a broad concept that includes the abilities to understand, use, manage, think, do, assess and transfer knowledge, skills, and attitudes towards a global society.

5. Technology is closely linked to creativity and innovation. Educational Technology presents boundless opportunities for students to produce creative works in text, images, graphics, and media.

6. The application of technology in everyday life and careers should be clearly emphasized to students during the teaching and learning process in every course of study.

7. In our global society, technology tools and processes are constantly changing and emerging. Educators should strive to be current with the constantly emerging advances in technology and flexible in adapting their teaching to these new advances.

Background

This is a revision of the 2015 South Dakota K-12 Educational Technology Standards through the review and adaptation of International Society for Technology in Education (ISTE) Standards and by associating existing South Dakota Educational Technology Standards. The South Dakota Department of Education selected educators from across the state to participate in this workgroup. The ISTE standards for students can be found at https://www.iste.org/standards/for-students

Strands

The standards and outcomes of each strand broadly and collectively articulate what the students should know and be able to do to become a technologically literate individual.

Strand 1: Empowered Learner (EL)
Strand 2: Computational Thinker (CT)
Strand 3: Digital Citizen (DC)
Strand 4: Innovative Designer (ID)
Strand 5: Creative Communicator (CC)
Strand 6: Global Collaborator (GC)
Strand 7: Knowledge Constructor (KC)

Organization of this Document

The South Dakota Educational Technology Standards document displays each standard and its supporting information as follows:
● by grade level with each of the education technology standards and outcomes listed
● grade band vertical progression

The Grade Bands

The South Dakota Educational Technology Standards include student outcomes (what students should know and be able to do) for the following grade bands:

- Kindergarten through grade 2
- Grades 3 through 5
- Grades 6 through 8
- Grades 9 through 12

Depth of Knowledge (DOK)

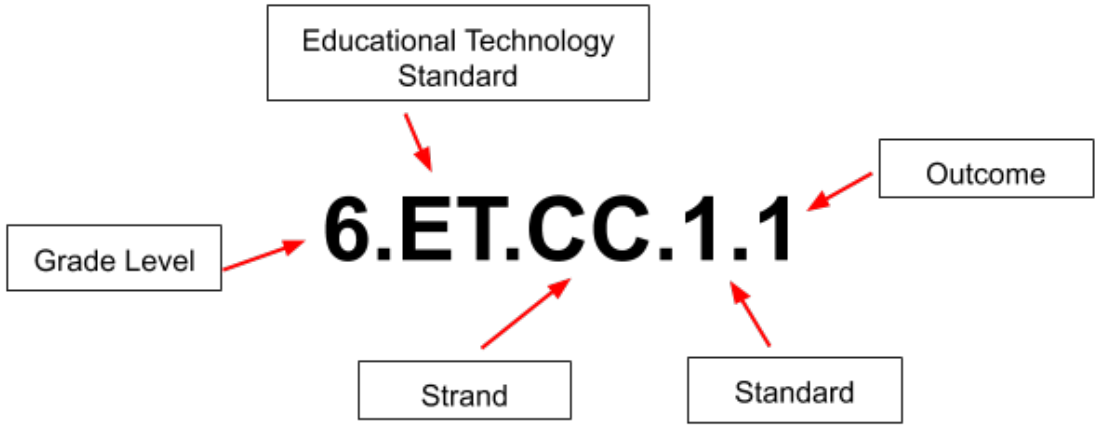
Standard outcomes are aligned with Webb's Depth of Knowledge. These levels identify the level of rigor for each outcome. The DOK level is indicated to the right of each outcome in the K-12 standards.

- Depth of Knowledge Level One: Recall and Reproduction
- Depth of Knowledge Level Two: Skills and Concepts
- Depth of Knowledge Level Three: Strategic Thinking
- Depth of Knowledge Level Four: Extended Thinking

Guide to the Number and Symbol System

The Standards are coded to cross-reference the Grade Level, Education Technology Standards, the Strand, the Standard, and the Outcome.

Example:



Kindergarten

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.

Standard	Outcomes	DOK
K.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	K.ET.EL.1.1: Demonstrate an understanding of how to create learning goals. K.ET.EL.1.2: Recognize technology as a tool to help achieve learning goals.	2 1
K.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	K.ET.EL.2.1: Participate in teacher-led collaboration with peers and experts using video, audio, and text-based resources.	1
K.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	K.ET.EL.3.1: Identify and explore feedback from peers and make improvements.	3
K.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	K.ET.EL.4.1: Utilize grade-level appropriate technology vocabulary. K.ET.EL.4.2: Demonstrate troubleshooting techniques when appropriate. K.ET.EL.4.3: Demonstrate an understanding of user input options to achieve the desired output from the device. K.ET.EL.4.4: Recognize letters and numbers on a keyboard.	4 2 2 2

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
K.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	K.ET.CT.1.1: With support, create a model or graph to express possible solutions to a problem.	4
K.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	K.ET.CT.2.1: With support, use materials to explore data and suggest a solution.	2
K.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	K.ET.CT.3.1: Break down everyday problems or routines into smaller, more manageable steps. (Basic coding) K.ET.CT.3.2: Demonstrate an understanding and apply student and teacher-led directions including forward, backward, right, left, up, and down.	1 2

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.

Standard	Outcomes	DOK
K.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	K.ET.DC.1.1: Recognize positive daily etiquette in relation to positive online etiquette.	1
K.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	K.ET.DC.2.1: Define digital citizenship. K.ET.DC.2.2: Identify appropriate and safe behaviors in real-world situations.	1 2

	K.ET.DC.2.3: With guidance, practice ways to be safe online as it relates to a given task and application.	3
K.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	K.ET.DC.3.1: Demonstrate an understanding that digital resources (videos, images, text) are created by others and must be used respectfully.	1
K.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	K.ET.DC.4.1: Identify what information is considered "personal data". K.ET.DC.4.2: Demonstrate an understanding of how to stay safe online by evaluating situations when information should and should not be shared.	1 2

Innovative Designer

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

Standard	Outcomes	DOK
K.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	K.ET.ID.1.1: Describe a problem found within the classroom and express an understanding of why it is a problem. K.ET.ID.1.2: Utilize a digital tool to assist in sharing solution ideas with others.	2 2
K.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	K.ET.ID.2.1: With support, examine the possible issues of a suggested solution or prototype. K.ET.ID.2.2: Demonstrate perseverance when completing a challenging task even when a task fails. K.ET.ID.2.3: Verbally share suggested improvements to be made to the solution or prototype.	3 2 4

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.

Standard	Outcomes	DOK
K.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	K.ET.CC.1.1: Select the most appropriate creation tool from a teacher-generated collection.	1
K.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	K.ET.CC.2.1: Use various materials to create a display of physical items to introduce the concepts of cut, copy, and paste.	2
K.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	K.ET.CC.3.1: Define the term audience as it applies to digital communications. K.ET.CC.3.2: Compare and contrast different audiences and the effects this has on communication strategies.	1 3

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.

Standard	Outcomes	DOK
K.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	K.ET.GC.1.1: With support, recognize examples of diversity through the use of images, videos, and texts. K.ET.GC.1.2: Identify specific differences between community issues and world issues.	1 1
K.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	K.ET.GC.2.1: Identify and apply various roles within a group to complete a collaborative task.	2

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.

Standard	Outcomes	DOK
K.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	K.ET.KC.1.1: With support, identify where information can be found.	1
	K.ET.KC.1.2: Demonstrate an understanding of the components that make a source credible by following teacher-selected examples.	2
K.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	K.ET.KC.2.1: Identify the difference between fiction and non-fiction.	1
	K.ET.KC.2.2: With support, begin to recognize fact and opinion.	1
K.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	K.ET.KC.3.1: With support, identify tools that can assist in organizing information.	1
K.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	K.ET.KC.4.1: As a class, identify examples of real-world problems.	1

First Grade

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.

Standard	Outcomes	DOK
1.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	1.ET.EL.1.1: Demonstrate how to create a learning goal with the use of technology tools.	2
1.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	1.ET.EL.2.1: Communicate original ideas with the use of digital tools within a group. 1. ET.EL.2.2: Students will use instructional videos during learning and collaboration.	3 2
1.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	1.ET.EL.3.1: Collaborate with others, provide feedback, and make improvements to complete a task.	3
1.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	1.ET.EL.4.1: Utilize grade-level appropriate technology vocabulary. 1.ET.EL.4.2: Independently and collaboratively troubleshoot basic problems when using age appropriate digital tools. 1.ET.EL.4.3: Effectively operate a device with minimal support. 1.ET.EL.4.4: Recognize letters and numbers on the keyboard.	4 3 2 2

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
1.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	1.ET.CT.1.1: Create a model or graph to visually demonstrate an understanding of a concept in a collaborative group.	4
1.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	1.ET.CT.2.1: With support, students analyze data and look for similarities in order to identify patterns and categories.	4
1.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	1.ET.CT.3.1: Create and follow step-by-step sequences to complete a task. 1.ET.CT.3.2: Implement proper introductory computer programming vocabulary.	4 1

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.

Standard	Outcomes	DOK
1.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	1.ET.DC.1.1: Identify proper online etiquette and how online interactions impact their lives in digital and non-digital spaces.	3
1.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	1.ET.DC.2.1: Demonstrate respectful behaviors in real-world situations.	2
1.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	1.ET.DC.3.1: Demonstrate an understanding that digital resources (videos, images, text) are created by others and must be used respectfully.	1

1.ET.DC.4: Students demonstrate a knowledge of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	1.ET.DC.4.1: Explain why it is not safe to enter personal information into a website, online gaming system, etc. without adult supervision.	2

Innovative Designer

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

Standard	Outcomes	DOK
1.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	1.ET.ID.1.1: Use basic search tools with a digital resource. 1.ET.ID.1.2: Use text and visuals to identify, solve, and share a problem.	2 2
1.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	1.ET.ID.2.1: With support, students will test ideas to determine possible solutions to problems. 1.ET.ID.2.2: Demonstrate an understanding of a given problem(s) and persevere in solving.	3 4

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.

Standard	Outcomes	DOK
1.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	1.ET.CC.1.1: With guidance, students will select a digital tool to use to publish their work.	3
1.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	1.ET.CC.2.1: Collect and present data in various visual formats.	2

1.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	1.ET.CC.3.1: Present a product to an audience.	2

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.

Standard	Outcomes	DOK
1.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	1.ET.GC.1.1: Communicate with people of different backgrounds, cultures and points of view using communication tools. 1.ET.GC.1.2: With support, utilize appropriate digital tools to further investigate specific issues.	2 2
1.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	1.ET.GC.2.1: Perform a role in a group to complete a project or solve a problem.	3

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.

Standard	Outcomes	DOK
1.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	1.ET.KC.1.1: Analyze the credibility of teacher-selected resources.	2
1.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	1.ET.KC.2.1: Distinguish the difference between fiction and non-fiction. 1.ET.KC.2.2: Distinguish the difference between fact and opinion.	1 1

1.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	1.ET.KC.3.1: With guidance, students will use digital multimedia tools to organize information. 1.ET.KC.3.2: Use tools on a device to transfer information from one place to another.	4 2
1.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	1.ET.KC.4.1: Use digital tools to solve a real-world problem.	3

Second Grade

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.

Standard	Outcomes	DOK
2.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	2.ET.EL.1.1: Use digital tools to monitor progress towards and achieve intended learning outcomes. 2.ET.EL.1.2: During dialogue with peers and teachers, draw conclusions about their use of digital tools to achieve an intended outcome.	2 3
2.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	2.ET.EL.2.1: Collaborate with others using digital tools. 2.ET.EL.2.2: Use online learning spaces to engage in learning both in and out of the classroom. 2.ET.EL.2.3: Seek out and use instructional videos and other digital resources during learning and collaboration.	2 2 2
2.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	2.ET.EL.3.1: Ask and answer questions about learning tasks and progress with peers and use feedback to improve digital products and processes during technology-rich learning experiences.	3

2.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	2.ET.EL.4.1: Independently utilize grade-level appropriate digital tools (e.g. touchscreen tablets, interactive whiteboards) to complete learning tasks. 2.ET.EL.4.2: Independently and collaboratively solve minor problems when using age appropriate digital tools. 2.ET.EL.4.3: Identify the location of punctuation and symbols on a keyboard. 2.ET.EL.4.4: Demonstrate use of proper finger placement on all letters and punctuation in the home row. 2.ET.EL.4.5: Explain or teach a digital tool to another person.	4 2 2 2 1

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
2.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	2.ET.CT.1.1: Individually create a model or graph to visually demonstrate an understanding of a concept.	4
2.ET.CT.2: Students select the most effective tools to represent data, deconstruct problems, identify key information, and formulate solutions.	2.ET.CT.2.1: Independently, analyze data and look for similarities in order to identify patterns and categories.	4
2.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	2.ET.CT.3.1: With guidance, create grade-appropriate computer-based programs that solve problems by (a) using automation to control a process, (b) identifying the most important information needed to solve a problem, (c) breaking multi-step problems into smaller parts, and (d) identifying and using patterns during problem-solving.	4

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.

Standard	Outcomes	DOK
2.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	2.ET.DC.1.1: Demonstrate awareness of proper online behaviors and how online interactions impact their lives in digital and non-digital spaces.	2
	2.ET.DC.1.2: Distinguish between grade appropriate positive and meaningful contributions with negative and harmful contributions in digital spaces.	2
2.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	2.ET.DC.2.1: With teacher guidance, demonstrate appropriate and safe behaviors when using digital tools in school and/or classroom digital spaces.	2
	2.ET.DC.2.2: Explain how to independently resolve negative situations in digital spaces.	2
2.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	2.ET.DC.3.1: Interpret and follow the ownership rights of intellectual property of others.	2
	2.ET.DC.3.2: Identify the author, date, and subject within different sources of information.	1
	2.ET.DC.3.3: Interpret their intellectual property rights as a content producer.	2
2.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	2.ET.DC.4.1: With support from a teacher, determine how technology exists in many areas of their lives and the importance of keeping personal information private.	2
	2.ET.DC.4.2: Distinguish what information can and cannot be shared online.	2

Innovative Designer

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

Standard	Outcomes	DOK
2.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	2.ET.ID.1.1: Utilize strategies, such as the engineering design process or scientific method, to demonstrate understanding and solve problems. 2.ET.ID.1.2: Present solutions to an audience (e.g., class, parents, guest) using digital tools.	3 1
2.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	2.ET.ID.2.1: Independently test ideas to determine possible solutions to problems. 2.ET.ID.2.2: Reflect on the results of trial and error during problem-solving to plan next steps and improve solutions.	2 3

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.

Standard	Outcomes	DOK
2.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	2.ET.CC.1.1: With guidance, select a digital tool to use to communicate and publish their work.	3
2.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	2.ET.CC.2.1: Use grade-appropriate digital tools to create original works and other artifacts, including the responsible reuse of works created by others. 2.ET.CC.2.2: Discuss in small and whole groups how they can use works created by others.	4 2

2.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	2.ET.CC.3.1: Present their ideas and other information using multimedia and digital tools.	4

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.

Standard	Outcomes	DOK
2.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	2.ET.GC.1.1: Collaboratively create multimedia products and artifacts with people from other backgrounds, cultures, and points of view.	4
2.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	2.ET.GC.2.1: In a small group, perform multiple roles and use a design process to complete a project or solve a problem using digital tools.	3

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.

Standard	Outcomes	DOK
2.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	2.ET.KC.1.1: Independently use appropriate search terms when researching a given topic using the internet.	2
2.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	2.ET.KC.2.1: Distinguish between fact and opinion on a website, and fiction and nonfiction in a digital resource.	1

2.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	2.ET.KC.3.1: With guidance, use digital multimedia tools to organize information. 2.ET.KC.3.2: Use digital platforms and graphic organizers as a class or with a partner to demonstrate a shared understanding of the content.	4 2
2.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	2.ET.KC.4.1: With teacher support, select an appropriate digital tool to solve a real-world problem. 2.ET.KC.4.2: Individually, use digital tools to create solutions to real-world problems. 2.ET.KC.4.3: Utilize diverse media formats (e.g., website video clip, print, digital/print weekly) to report on a shared topic, then participate in a classroom discussion on the topic using digital tools.	3 2 4

Third Grade

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.

Standard	Outcomes	DOK
3.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	3.ET.EL.1.1: With guidance use a variety of digital equipment to track learning goals.	1
3.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	3.ET.EL.2.1: Create and use a list of support based on classmates' skill level. 3.ET.EL.2.2: Develop a support system of experts and peers.	4 3
3.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	3.ET.EL.3.1: Technology tools to provide helpful feedback to peers. 3.ET.EL.3.2: Interpret specific feedback to improve their learning.	4 3
3.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	3.ET.EL.4.1: Apply simple troubleshooting skills to solve common technology-related problems. Such as: checking computer sound, correct plug in for headphones, turning on/off devices, or use of caps lock. 3.ET.EL.4.2: Apply prior knowledge to operate unfamiliar or new equipment. Ex: logging into computers, turning on/off devices, or saving files. 3.ET.EL.4.3: Demonstrate correct typing techniques to compose two paragraphs in a given timeframe.	2 2 2

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
3.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	3.ET.CT.1.1: Demonstrate an understanding of interactive resources that help facilitate problem solving and decision making. Such as: visual representations of plots, charts, and graphs.	3
3.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	3.ET.CT.2.1: Demonstrate an understanding of computational thought process to comprehend and explain a variety of data and simulations/models.	3
3.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	3.ET.CT.3.1: Use the understanding of mathematical tools to communicate and interpret data. 3.ET.CT.3.2: Collect and organize data in spreadsheets, tables, etc. 3.ET.CT.3.3: Describe patterns in spreadsheets, tables, etc.	2 2 3

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.

Standard	Outcomes	DOK
3.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	3.ET.DC.1.1: Define and explain what a digital footprint is and how it can be used in the technology world. 3.ET.DC.1.2: Show and explain what responsible and ethical technology practices look like. 3.ET.DC.1.3: Demonstrate and communicate an understanding of safety issues related to online practices and behaviors.	2 2 3

3.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	3.ET.DC.2.1: Demonstrate and explain what rules and laws apply to digital technology and content. 3.ET.DC.2.2: Articulate and role model powerful practices when it comes to digital etiquette. Such as identifying/reporting cyberbullying, inappropriate usage, and pop-ups/advertising.	2 4
3.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	3.ET.DC.3.1: Demonstrate and role model social rules for appropriate behavior. 3.ET.DC.3.2: Recognize and promote digital respect when it comes to the gathering of relevant information and sources.	2 2
3.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	3.ET.DC.4.1: Describe how digital information is archived 3.ET.DC.4.2: Describe the process and importance of password security.	2 1

Innovative Designer

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

Standard	Outcomes	DOK
3.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	3.ET.ID.1.1: Use technology to share ideas, compare solutions, and design plans to solve real life problems. 3.ET.ID 1.2 Develop a design process to solve real life problems.	3 4
3.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	3.ET.ID.2.1: Assess information to examine prototypes and solutions to solve open-ended problems.	4

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.

Standard	Outcomes	DOK
3.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	3.ET.CC 1.1: Select and use videoconferencing to communicate and learn from others. Such as: online discussions, communicate virtually.	2
	3.ET.CC.1.2: Create digital audio recordings for teacher-directed activities.	2
3.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	3.ET.CC.2.1: Modify teacher-created slides using appropriate software. Such as: Multimedia programs	3
	3.ET.CC. 2.2 Discuss laws and rules as an introduction to digital content protections	1
3.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	3.ET.CC.3.1: Use digital drawing tools and other appropriate software to express ideas individually and collaboratively.	3
	3.ET.CC.3.2: With teacher assistance, I can select the appropriate medium for any digital project.	2

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.

Standard	Outcomes	DOK
3.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	3.ET.GC.1.1: Connect with other students to discuss, collaborate, and generate solutions to local, national, and global issues using digital or non-digital tools.	4

3.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	3.ET.GC.2.1: Use teacher- assigned collaborative teaming and roles to create, design, or develop a project that addresses global challenges and issues.	3

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.

Standard	Outcomes	DOK
3.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	3.ET.KC.1.1: Gather information from research using appropriate digital tools.	3
	3.ET.KC.1.2: Use the digital tools to locate, retrieve and organize information effectively.	2
	3.ET.KC.1.3: Use digital tools effectively, such as: Search engine, database, content library, personal bookmarks, shortcuts, hyperlinks, etc.	2
3.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	3.ET.KC.2.1: Access, analyze and evaluate electronic sources for accurate utility.	3
	3.ET.KC.2.2: Use digital tools to demonstrate content knowledge of proper citation, plagiarism, while gathering relevant and credible information.	2
3.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	3.ET.KC.3.1: Use digital templates and graphic organizers to record questions and plan investigations for meaningful learning experiences.	3
3.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	3.ET.KC.4.1: Gather information for research using teacher-selected digital tools.	2
	3.ET.KC.4.2: Use digital tools to gather and analyze for the purpose of investigative reporting. and generate solutions.	2

Fourth Grade

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.

Standard	Outcomes	DOK
4.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	4.ET.EL.1.1: Effectively identify and use a goal to determine how digital learning tools can help accomplish that goal.	2
4.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	4.ET.EL.2.1: Work effectively in groups with analyzing roles and building networks with industry experts.	3
4.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	4.ET.EL.3.1: Analyze the effects of feedback with a technological systems model.	3
4.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	4.ET.EL.4.1: Demonstrate proficiency in the use of vocabulary, computers and applications as well as an understanding of the concepts underlying hardware, software and connectivity. 4.ET.EL.4.2: Transfer previous knowledge from different products into new emerging technologies. 4.ET.EL.4.3: Use device appropriate techniques and proper finger placement to compose a 1-page typed document in a given time frame.	3 2 2

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
4.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	4.ET.CT.1.1: Using logical thinking, select digital tools to create visually appropriate graphical representation of data (e.g., line graphs, circle graphs, bar graphs, etc.).	2
4.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	4.ET.CT.2.1: Identify components of the computational thought process within the context of examining a problem.	3
4.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	4.ET.CT.3.1: Students will recognize an algorithm which communicates and interprets clear instructions for a predictable, reliable output which can be replicated or automated in the future.	3

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.

Standard	Outcomes	DOK
4.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	4.ET.DC.1.1: Describe and practice safety precautions while online, including social interactions and/or when using network devices.	1
4.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	4.ET.DC.2.1: Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	3

4.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	4.ET.DC.3.1: Analyze the effects of cyberbullying. 4.ET.DC.3.2 Use digital tools to identify the needed information to cite sources with guidance.	3 2
4.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	4.ET.DC.4.1: Manage personal data to maintain privacy and to demonstrate an understanding that data-collection technology is used to track their navigation online.	3

Innovative Designer

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

Standard	Outcomes	DOK
4.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	4.ET.ID.1.1: Plan and implement a design process to a given problem and share your results with an authentic audience.	4
4.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	4.ET.ID.2.1: Research and solve open-ended problems. 4.ET.ID.2.2: Develop, test and refine prototypes as part of a cyclical design process.	3 4

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.

Standard	Outcomes	DOK
4.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	4.ET.CC.1.1: Construct a digital product with different platforms to communicate with others.	4
4.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	4.ET.CC.2.1: Create original digital works using multiple platforms. 4.ET.CC.2.2: Identify and discuss laws and rules that apply to digital content and information.	2 1
4.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	4.ET.CC.3.1: Generate, develop and communicate design ideas and decisions using appropriate terms and graphical representations based on the audience.	4

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.

Standard	Outcomes	DOK
4.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	4.ET.GC.1.1: Use digital tools to work collaboratively with friends and people of diverse backgrounds to examine local, national, and global issues.	3
4.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	4.ET.GC.2.1: Perform a variety of roles within a collaborative team to complete a project or solve a problem.	3

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.

Standard	Outcomes	DOK
4.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	4.ET.KC.1.1: Use appropriate search techniques, digital learning tools and resources to effectively locate a variety of information	2
4.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	4.ET.KC.2.1: Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	3
4.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	4.ET.KC.3.1: Organize information from digital resources using a variety of tools and strategies to make meaningful learning experiences.	2
4.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	4.ET.KC.4.1: Use and analyze digital tools to explore global issues and research potential solutions.	4

Fifth Grade

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.

Standard	Outcomes	DOK
5.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	5.ET.EL.1.1: Evaluate what changes need to be made within a system to accomplish a goal.	3
5.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	5.ET.EL.2.1: Collaborate with a variety of groups to design a digital product using online tools.	4
5.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	5.ET.EL.3.1: Use or create digital forms to receive feedback from others to deepen learning.	3
5.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	5.ET.EL.4.1: Compare and contrast the functions and capabilities of input and/or output devices and other peripherals. 5.ET.EL.4.2: Demonstrate the ability to transfer data between device. 5.ET.EL.4.3: Implement grade-level appropriate technology vocabulary. 5.ET.EL.4.4: Use device-appropriate techniques to compose 2 pages in a given time frame. 5.ET.EL.4.5: Personalize application menus and toolbars for greater productivity. 5.ET.EL.4.6: Determine how changes in a technology tool affect the outcome of a task.	3 2 2 2 2 4

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
5.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	5.ET.CT.1.1: Use digital tools to create models and analyze data.	3
5.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	5.ET.CT.2.1: Use the computational thought process to formulate a solution for a given problem.	4
5.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	5.ET.CT.3.1: Analyze a process to produce a result, explaining how controls use information to cause systems to change.	4

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.

Standard	Outcomes	DOK
5.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	5.ET.DC.1.1: Describe the impact of unethical and illegal technology usage on the individual and society.	3
5.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	5.ET.DC.2.1: Integrate personal safety precautions and etiquette while online.	2

5.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	5.ET.DC.3.1: Construct and define social rules for behavior based upon previously learned concepts of bullying and cyberbullying. 5.ET.DC.3.2: Use digital tools to properly cite digital sources when gathering relevant information.	4 2
5.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	5.ET.DC.4.1: Make observations of how data is collected, tracked and shared online. 5.ET.DC.4.2: Integrate personal safety precautions and etiquette while online. 5.ET.DC.4.3: Connect the relationship between technological inventions and society changes.	2 3 3

Innovative Designer

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

Standard	Outcomes	DOK
5.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	5.ET.ID.1.1: Plan and implement a design process: identify the problem, brainstorm solutions, design solution, test and evaluate solutions, present the solution. 5.ET.ID.1.2: Generate ideas using or not using technology tools for a variety of projects.	4 1
5.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	5.ET.ID.2.1: Given an engineering design challenge, with an end goal in mind, synthesize the process collaboratively using digital tools to simulate, record, reiterate or present solutions.	4

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.

Standard	Outcomes	DOK
5.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	5.ET.CC.1.1: Select the most effective tools to communicate with others.	2
5.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	5.ET.CC.2.1: Produce relevant information using advanced search functions. 5.ET.CC.2.2: Use digital tools to properly cite digital sources with guidance. 5.ET.CC.2.3: Create original artifacts using digital tools to demonstrate knowledge.	4 2 2
5.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	5.ET.CC.3.1: Use digital tools to communicate ideas with the use of visualizations. 5.ET.CC.3.2: With guidance, choose the most appropriate digital medium considering audience and content.	3 2

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.

Standard	Outcomes	DOK
5.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	5.ET.GC.1.1: Identify with diverse perspectives when examining local, national, and global issues using digital tools for connection.	3

5.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	5.ET.GC.2.1: Perform and analyze the various team roles using digital tools to complete or solve the project within a team.	3

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.

Standard	Outcomes	DOK
5.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	5.ET.KC.1.1: Produce relevant information using advanced search functions.	4
	5.ET.KC.1.2: Determine the reliability and relevancy of a source using a teacher-provided evaluation tool.	3
	5.ET.KC.1.3: Produce relevant information using advanced search functions.	2
5.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	5.ET.KC.2.1: Determine the reliability and relevancy of a source using a teacher-provided evaluation tool.	3
5.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	5.ET.KC.3.1: Design an innovative project in word processing, publishing, spreadsheet, and presentation applications independently.	4
	5.ET.KC.3.2: Select the most effective tools and strategies to make meaningful learning experiences.	2

5.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	5.ET.KC.4.1: Determine how changes in a technology tool affect the outcome of a task.	4
	5.ET.KC.4.2: Collaborate with a variety of groups to design a digital product using online tools.	4
	5.ET.KC.4.3: Analyze what changes need to be made within a problem to accomplish a solution.	4

Sixth Grade

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.

Standard	Outcomes	DOK
6.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	6.ET.EL.1.1: Identify personal learning goals while using digital tools with teacher assistance.	1
	6.ET.EL.1.2: Utilize teacher-selected digital tools and resources to assist them in their learning.	2
	6.ET.EL.1.3 Use digital tools to provide feedback to peers.	2
6.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	6.ET.EL.2.1: Identify and engage in school provided virtual learning environments.	3
	6.ET.EL.2.2: Customize their learning in collaboration with an educator.	3
6.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	6.ET.EL.3.1: Use teacher-provided interactive digital tools to gather data to help make decisions.	2
	6.ET.EL.3.2: Actively seek performance feedback from teachers and peers using digital tools to improve and demonstrate learning.	3

6.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	6.ET.EL.4.1: Demonstrate the use of keyed technology to produce a product in any learning environment. 6.ET.EL.4.2: Use a checklist of items to consider when troubleshooting problems. 6.ET.EL.4.3: Navigate a variety of digital tools and transfer their knowledge to learn new skills. 6.ET.EL.4.4: Demonstrate knowledge of a variety of word processing tools to complete a task.	2 3 2 4

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
6.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	6.ET.CT.1.1: With support, analyze data to create models.	2
6.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	6.ET.CT.2.1: Gather data and determine if patterns or trends are present.	3
6.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	6.ET.CT.3.1: Create algorithms to demonstrate an understanding of logical processes and use reasoning. 6.ET.CT.3.2: Identify technology automation.	3 1

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.

Standard	Outcomes	DOK
6.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	6.ET.DC.1.1: Implement basic precautions to protect themselves and others when using digital technology. 6.ET.DC.1.2: Identify the risks of sharing information online and assess the importance of a positive digital footprint. 6.ET.DC.1.3: Recognize and discuss ways to maintain personal safety and avoid online victimization.	2 1 3
6.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	6. ET.DC.2.1: Demonstrate an understanding of the importance of external and internal Acceptable Use Policies or Terms of Use. 6.ET.DC.2.2: Recognize the impact of cyberbullying in online communication, relationships, and mental health. 6.ET.DC.2.3: Identify the positive and negative impact the use of technology can have on personal, professional, and community relationships.	2 1 1
6.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	6.ET.DC.3.1: Demonstrate an understanding of intellectual property and terms of use. 6..ET.DC.3.2: Work with librarians and educators in media literacy to demonstrate an understanding of how to locate digital and non-digital information and resources.	1 2

6.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	6.ET.DC.4.1: Define security vulnerabilities to protect personal privacy. 6.ET.DC.4.2: Demonstrate an understanding of when and when not to click on links, pop-ups, and advertisements while using the Internet.	2 2

Innovative Designer

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

Standard	Outcomes	DOK
6.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	6.ET.ID.1.1: Identify and apply a selected design process with teacher support.	2
6.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	6.ET.ID.2.1: Explain how optimization is the process of making a prototype through trial and error as fully functional and effective as possible. 6.ET.ID.2.2: Demonstrate an understanding that the design process is iterative.	1 2

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.

Standard	Outcomes	DOK
6.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	6.ET.CC.1.1: Identify a variety of platforms and digital tools before, during, and after completion of a task. 6.ET.CC.1.2: Use a variety of tools to communicate their learning effectively.	2 2

6.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	6.ET.CC.2.1: Create an audio and/or visual project using online materials that are cited correctly.	4
6.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	6.ET.CC.3.1: Select from a list of tools to create data visualizations that are easily understood by their peers.	3

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.

Standard	Outcomes	DOK
6.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	6.ET.GC.1.1: Use a variety of digital tools to collaborate and communicate with peers, experts, and other audiences.	4
	6.ET.GC.1.2: Use digital tools to connect with people of different backgrounds, cultures and different points of view.	3
	6.ET.GC.1.3: Use digital tools to gather information, create products, and present material regarding local, national, and global issues.	4
Standard	**Outcomes**	**DOK**
6.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	6.ET.GC.2.1: Identify group roles to actively participate and take ownership for the work of a team.	2
	6.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings and results to local or global audiences.	3
	6.ET.ED.2.3: Distribute tasks and maintain a project timeline when collaboratively developing artifacts.	4

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.

Standard	Outcomes	DOK
6.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	6.ET.KC.1.1: Explain the differences among various search engines and how they rank results.	2
6.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	6.ET.KC.2.1: Demonstrate knowledge that not all online sources are accurate and credible. 6.ET.KC.2.2: With support, select online resources based on a list of criteria.	2 2
6.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	6.ET.KC.3.1: Locate and collect resources from a variety of sources and organize into collections for a wide range of projects and purposes.	2
6.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	6.ET.KC.4.1: Develop digital materials to promote personal or real-world understanding.	3

Seventh Grade

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.

Standard	Outcomes	DOK
7.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	7.ET.EL.1.1: Set and communicate personal learning goals using digital tools to reflect on progress.	3
	7.ET.EL.1.2: Compare the types of digital tools and resources best able to assist them in their learning.	3
	7.ET.EL.1.3: Use digital tools to share thoughts, ideas, and concepts with peers.	3
7.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	7.ET.EL.2.1: Demonstrate the ability to use school approved virtual learning environments to collaborate, present, and publish information.	3
	7.ET.EL.2.2: Use school-approved collaborative and file sharing groups to network and get assistance from teachers and peers.	3
7.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	7.ET.EL.3.1: Use digital tools to gather data to help guide and assess information during the learning process.	3
	7.ET.EL.3.2: Solicit feedback for ideas using digital tools.	3

7.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	7.ET.EL.4.1: Incorporate the use of keyed technology to produce a product in any learning environment. 7.ET.EL.4.2: Develop a checklist of items to consider when troubleshooting problems. 7.ET.EL.4.3: Develop criteria for selecting digital learning tools and resources to accomplish a defined task. 7. ET.EL.4.4: Demonstrate knowledge of a variety of digital presentation tools to complete a task.	2 3 3 4

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
7.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	7.ET.CT.1.1: Independently select tools to analyze data to create models.	3
7.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	7.ET.CT.2.1: Analyze data, examine patterns, and apply information for decision-making to formulate a solution.	4
7.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	7.ET.CT.3.1: Create simple computational codes to respond to simple commands. 7.ET.CT.3.2: Relate automation to the progression of technology and the impacts on society and careers.	4 3

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.

Standard	Outcomes	DOK
7.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	7. ET.DC.1.1: Lead or participate in class discussions about digital literacy and online safety.	2
	7. ET.DC.1.2: Manage their digital identities and reputations within school policy, including demonstrating the permanence of digital actions.	3
	7. ET.DC.1.3: Demonstrate an understanding of and implement strategies to maintain personal safety and avoid online victimization.	3
7.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	7. ET.DC.2.1: Define and outline external and internal Acceptable Use Policies or Terms of Use.	2
	7.ET.DC.2.2: Explain the impact of cyberbullying in online communication, relationships, and mental health.	2
	7.ET.DC.2.3 Explain the positive and negative impact the use of technology can have on personal, professional, and community relationships.	2
7.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	7.ET.DC.3.1: Distinguish and properly apply terms of use between different types of intellectual property.	3
	7.ET.DC.3.2: Work with librarians and educators in media literacy to demonstrate an understanding of how to attribute material for digital and non-digital products.	3

7.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	7.ET.DC.4.1: Evaluate online security vulnerabilities to determine their safety, privacy policy, and appropriate use. 7.ET.DC.4.2: Demonstrate an understanding of how websites track site users to monitor their online behavior which results in targeted links, pop-ups, and advertisements.	3 2

Innovative Designer

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

Standard	Outcomes	DOK
7.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	7.ET.ID.1.1: Define and apply a selected design process.	4
7.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	7.ET.ID.2.1: Describe how trade-offs involve a choice of one quality over another in prototype design. 7.ET.ID.2.2: Determine and justify movement within the steps of the design process while solving a problem.	2 3

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.

Standard	Outcomes	DOK
7.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	7.ET.CC.1.1: Evaluate the appropriateness of their chosen platform or tools before, during, and after completion of a task. 7.ET.CC.1.2: Use digital tools to document personal learning experience and receive feedback from peers.	3 3

7.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	7.ET.CC.2.1: Use creativity to produce original artifacts.	4
7.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	7.ET.CC.3.1: Select from a list of tools to create data visualizations that are easily understood by their peers and others.	3

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.

Standard	Outcomes	DOK
7.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	7.ET.GC.1.1: Select and apply digital environments to collaborate, present, and publish information.	4
	7.ET.GC.1.2: Select and apply digital tools to connect with people of different backgrounds, cultures and different points of view.	3
	7.ET.GC.1.3: Select and apply digital tools to gather information, create products, and present material regarding local, national, and global issues.	4
7.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	7.ET.GC.2.1: Determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference.	3
	7.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings and results and gather feedback to local or global audiences.	3
	7.ET.CT.2.3: Create a project plan timeline and role descriptions for an upcoming group project.	4

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.

Standard	Outcomes	DOK
7.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	7.ET.KC.1.1: Use effective search strategies for locating and retrieving electronic information.	2
7.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	7.ET.KC.2.1: Demonstrate an understanding that media presents messages that are beneficial and may have an inherent bias and question who produced the material. 7.ET.KC.2.2: Independently select online resources based on a list of criteria.	2 2
7.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	7.ET.KC.3.1: Integrate information presented in different media or formats to clarify information, strengthen claims and evidence, and add interest.	3
7.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	7.ET.KC.4.1: Create new products to demonstrate knowledge to provide innovative solutions to real-world problems.	4

Eighth Grade

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.

Standard	Outcomes	DOK
8.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	8.ET.EL.1.1: Set and communicate personal learning goals, use digital tools to share with others, and reflect on their learning.	3
	8.ET.EL.1.2: Use a variety of digital tools to achieve their learning goals and justify the rationale for their selection.	4
	8.ET.EL.1.3: Create a digital portfolio to share their work and receive feedback from peers.	3
8.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	8.ET.EL.2.1: Apply individually selected and school approved virtual learning environments to collaborate, present, and publish information.	4
	8.ET.EL.2.2: Use collaborative technology to build a personal learning network.	3
8.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	8.ET.EL.3.1: Evaluate a variety of digital tools and methods to effectively and efficiently gather and publish information.	4
	8.ET.EL.3.2: Utilize digital communication tools to obtain feedback to improve the overall quality of the product.	3
8.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	8.ET.EL.4.1: Implement the use of keyed technology to produce a product in any learning environment.	2
	8.ET.EL.4.2: Demonstrate the ability to locate and use documentation and online resources to help solve hardware/software problems.	4

	8.ET.EL.4.3: Apply their knowledge and skills from existing technologies and devices to successfully use new technologies. 8.ET.EL.4.4: Demonstrate knowledge of a variety of multimedia tools to complete a task.	3 4

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
8.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	8.ET.CT.1.1: Investigate and compare the digital tools used to analyze data and create models for problem solving. 8.ET.CT.1.2: Recommend and integrate applications that could be extended to other situations	4 3
8.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	8.ET.CT.2.1: Use data and patterns to design an efficient system to formulate solutions to test for intended outcomes. 8.ET.CT.2.2: Compare the effect one system has on another system.	4 4
8.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	8.ET.CT.3.1: Investigate coding efficiency for patterns such as loops and functions and implementation of abstraction such as variables and parameters. 8.ET.CT.3.2: Evaluate automation to the progression of technology and the impacts on society and careers.	4 3

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.

Standard	Outcomes	DOK
8.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	8.ET.DC.1.1: Analyze risks and consequences of sharing information online and advocate for the importance of creating and maintaining a positive digital footprint for self and others.	3
	8.ET.DC.1.2: Examine the personal and societal positive and negative impacts of digital technology use.	3
	8.ET.DC.1.3: Implement and advocate strategies to maintain personal safety and avoid online victimization of self and others.	3
8.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	8.ET.DC.2.1: Critique external and internal Acceptable Use Policies or Terms of Use.	4
	8.ET.DC.2.2: Advocate social rules of anti-bullying and cyberbullying to promote positive and healthy online communication, relationships, and mental health.	3
	8.ET.DC.2.3: Connect how technology can have positive and negative impacts on personal, professional and community relationships.	3
8.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	8.ET.DC.3.1: Advocate for the proper use of intellectual property and implement in all subject areas.	4
	8.ET.DC.3.2: Work with librarians and educators to demonstrate an understanding of how to add attribution to original works.	4

8.ET.DC.4: S Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	8.ET.DC.4.1: Investigate cybersecurity vulnerabilities and their personal, local, and global impacts. 8.ET.DC.4.2: Assess methods that online merchants collect information to target and market users.	4 3

Innovative Designer

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

Standard	Outcomes	DOK
8.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	8.ET.ID.1.1: Apply and justify a design process to solve identified problems.	4
8.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	8.ET.ID.2.1: Design and test prototypes to solve problems. 8.ET.ID.2.2: Critique and synthesize results of tests to refine prototypes.	4 3

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.

Standard	Outcomes	DOK
8.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	8.ET.CC.1.1: Evaluate the appropriateness of their chosen platform or tools before beginning and during the project, and after completion are able to justify their choice to an audience. 8.ET.CC.1.2: Evaluate and implement effective collaborative technology to manage interpersonal communication and information.	4 3
8.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	8.ET.CC.2.1: Create original artifacts that contain properly remixed or repurposed material.	3
8.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	8.ET.CC.3.1: Select and justify a tool to create a visualization to effectively explain and clarify content and ideas to an audience.	3

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.

Standard	Outcomes	DOK
8.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	8.ET.GC.1.1: Evaluate digital tools to learn from and collaborate with peers, experts, and community members with different perspectives and knowledge bases from a diversity of cultures and geographic regions.	4
	8.ET.GC.1.2: Evaluate digital tools to connect with people of different backgrounds, cultures and different points of view.	3
	8.ET.GC.1.3: Evaluate digital tools to gather information, create products, and present material regarding local, national, and global issues.	4
8.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	8.ET.GC.2.1: Seek and incorporate feedback from team members and users to refine a solution that meets user needs.	4
	8.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings or results and gather feedback to revise products for local or global audiences.	3
	8.ET.GC.2.3: Identify and use a digital project management tool to track team performance on assigned tasks.	3

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.

Standard	Outcomes	DOK
8.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	8.ET.KC.1.1: Implement a plan for conducting a search of electronic resources for a given task.	2
8.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	8.ET.KC.2.1: Analyze online sources for accuracy, authority, perspective, relevance, and currency. 8.ET.KC.2.2: Evaluate digital sources based on the appropriateness to specific tasks.	3 3
8.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	8.ET.KC.3.1: Develop, analyze, and integrate a repertoire of strategies to apply new technologies to tasks.	3
8.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	8.ET.KC.4.1: Recommend and integrate digital tools to explore real-world problems and potential solutions.	4

High School - 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.

Standard	Outcomes	DOK
HS.ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	HS.ET.EL.1.1: Develop strategies for using digital learning tools and resources to plan, implement, and reflect upon a complex task.	3
	HS.ET.EL.1.2: Set personal learning goals and explore technologies to improve upon learning outcomes.	1
HS.ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	HS.ET.EL.2.1: Develop a professional social network that relates to a potential chosen profession.	1
	HS.ET.EL.2.2: Work collaboratively with a group of peers in a digital setting using the strengths. Of each team member to improve the group's end product.	1
HS.ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	HS.ET.EL.3.1: Analyze feedback to improve upon an authentic artifact that demonstrates learning	3
HS.ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	HS.ET.EL.4.1: Using prior knowledge to troubleshoot common technology issues.	1
	HS.ET.EL.4.2: Offer to help peers when they can and accept help from others.	1

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Outcomes	DOK
HS.ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	HS.ET.CT.1.1: Design and create prototypes of technology-based solutions to real-world problems. HS.ET.CT.1.2: Apply logical thinking to solve a complex problem by breaking it down into manageable parts.	4 2
HS.ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	HS.ET.CT.2.1: Analyze data collected or retrieved from a variety of digital learning tools and resources to determine if patterns or trends are present. HS.ET.CT.2.2: Deconstruct data into its component parts and describe how they connect. HS.ET.CT.2.3: Develop a product to explain a complex interdisciplinary issue.	3 2 3
HS.ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	HS.ET.CT.3.1: Identifying, analyzing, and implementing possible solutions with the goal of achieving the most efficient and effective combination of steps and resources. HS.ET.CT.3.2: Identify and solve a STEM problem using design process. HS.ET.CT.3.3: Formulate steps to solve problems that enable the use of a computer and other tools to arrive at a solution.	3 2 3

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.

Standard	Outcomes	DOK
HS.ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	HS.ET.DC.1.1: Evaluate immediate and long-range effects of ethical and unethical uses of technology. HS.ET.DC.1.2: Analyze the impact of social media on individuals and society.	4 3
HS.ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	HS.ET.DC.2.1: Critique personal digital footprint. HS.ET.DC.2.2: Use proper citation strategies to give credit to images and texts.	3 2
HS.ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	HS.ET.DC.3.1: Evaluate the need for technology policies on a local, national and global level. HS.ET.DC.3.2: Comply with copyright law in regard to media usage, citing sources, and can explain the principle of fair use.	3 1
HS.ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	HS.ET.DC.4.1: Investigate cyber-security issues in a technological society. HS.ET.DC.4.2: Apply safe practices in the sharing of personal information digitally and can explain how personal information may be stored by websites (ex: cookies).	3 2

Innovative Designer

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

Standard	Outcomes	DOK
HS.ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	HS.ET.ID.1.1: Compare and contrast methods for problem-solving and decision-making.	2
	HS.ET.ID.1.2: Develop strategies to plan, implement and reflect upon a complex task.	3
	HS.ET.ID.1.3: Implement, document and present the design process.	2
Standard	**Outcomes**	**DOK**
HS.ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	HS.ET.ID.2.1: Formulate a technological solution using data-driven decision making.	2
	HS.ET.ID.2.2: Critically evaluate a design solution at multiple points of the design process and adjust processes and outcomes as needed for the desired outcome.	3

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.

Standard	Outcomes	DOK
HS.ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	HS.ET.CC.1.1: Critique a variety of communication tools to effectively and efficiently communicate with a targeted audience and purpose.	3

HS.ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	HS.ET.CC.2.1: Create and publish interdisciplinary artifacts and media-rich products, individually or collaboratively. HS.ET.CC.2.2: Apply principles of copyright, use digital citation tools and use strategies to avoid plagiarism when using the work of others as well as creating personal work.	4 2
HS.ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	HS.ET.CC.3.1: Arrange data (e.g., images, diagrams, maps, graphs, infographics, videos, animations) from a variety of digital learning tools and resources to disseminate information to multiple audiences. HS.ET.CC.3.2: Critique a variety of communication tools to effectively and efficiently communicate with a targeted audience and purpose. HS.ET.CC.3.3: Implement and evaluate a communication plan to disseminate information to multiple audiences.	1 3 4

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.

Standard	Outcomes	DOK
HS.ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	HS ET.GC.1.1: Connect and participate in online discussions about topics that encourage multiple perspectives on an issue with students and classrooms around the world. HS ET.GC.1.2: Debate the advantages and disadvantages of technology in the workplace and global society in relation to its widespread use, accessibility, and humanities reliance on technology.	4 3
HS.ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	HS ET.GC.2.1: Use project management tools to organize individual and group tasks and reflect on participation and goal completion. HS ET.GC.2.2: Collaborate with peers using technology to compile, synthesize, produce, and disseminate creative works.	4 3

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.

Standard	Outcomes	DOK
HS.ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	HS.ET.KC.1.1: Gather and assess relevant information from a variety of digital resources.	2
	HS.ET.KC.1.2: Design a problem-based research project using technology to find and report information with properly cited sources.	2
HS.ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	HS.ET.KC.2.1: Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic resources.	3
	HS.ET.KC.2.2: Analyze information based on factors such as date of publication, author, and perspective.	3
HS.ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	HS.ET.KC.3.1: Compile an organized set of resources using appropriate digital tools.	3
	HS.ET.KC.3.2 Use advanced search and filtering techniques to locate and compare sets of information using digital tools.	2
HS.ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	HS.CT.KC.4.1: Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.	2
	HS.ET.KC.4.2: Investigate and apply simulations with real-world situations.	2

Glossary

Abstraction	To reduce complexity by removing unnecessary information.
Acceptable Use Policy	A set of rules that defines what is and what is not permitted for use on information communication technologies.
Algorithm	A sequence of instructions used to solve a problem.
Bias	In favor of or against one view or another.
Coding Approaches	Entering commands in the computer in a programming language, so that the computer can carry out the said command and perform the task.
Components	A part or element of a whole that can be separated from or attached to a system.
Computational Thinking	The process of representing data, deconstructing problems, identifying key information, and formulating solutions.
Computer Files	A block of arbitrary information, or resource for storing information, that is available to a computer program and is usually based on some kind of durable storage. Computer files can be considered as the modern counterpart of the files of printed documents that traditionally existed in offices and libraries, which are the source of the term.
Confidentiality	The concept of keeping private information safe from individuals who should not have access.
Content Library	A collection of files, webinars, reports, and resources that can be shared with other devices.
Cyber-Bullying	Improper behavior using digital devices that is designed to harm another person.
Cyber-Security	The art of protecting networks, devices, and data from unauthorized access or criminal use and the practice of ensuring confidentiality, integrity, and availability of information.
Debug	The process of finding and resolving errors within a computer program that prevent correct operation of computer software or a system
Decomposition	Breaking down a bigger problem into its smaller parts.
Design Process	Common series of steps used in creating functional products and processes.
Digital Citizenship	The norms of behavior with regard to technology use.
Digital Device	Any physical unit which has the ability to accept input, process information, store data, and provide output including, but not limited to, PCs, iPads, Chromebooks, Smart Devices: phones and watches, tablets, eReaders, calculators, and lab equipment.
Digital Etiquette "netiquette"	A basic set of rules for appropriate online behaviors.
Digital Footprint	A trail of data that is left behind by users on digital services, passive and active.
Digital Literacy	A person's ability to perform tasks effectively in a technological environment.
Digital Portfolio	A digital-based collection of student performance over time.

Digital Project Management	Tools used to plan, delegate, track, review, and measure results delivered through screens or connected devices.
Digital Tools	Hardware and software used to complete a task.
Hardware	Physical components that a computer system requires to function, including, but not limited to, keyboards, monitor, mouse, and speakers.
Home Row	Starting standard keyboard finger placements (a-s-d-f-g-h-j-k-l-;).
Information and Communication Technology (ICT)	A range of technologies for gathering, storing, retrieving, processing, analyzing, and transmitting information
Input	Any information or data sent to a computer for processing using an input device such as a microphone, mouse, camera/webcam, or keyboard.
Integrity	The concept that data is consistent and hasn't been modified.
Intellectual Property	A work or invention that is the result of creativity. Examples include: copyright, patents, trademarks.
Medium	A visual representation used to convey information.
Multimedia Tools	Tools using a combination of multimedia technologies or content forms such as text, audio, picture, video or animation.
Network	A social, religious occupational, or other group sharing common characteristics or interests and perceived or perceiving itself as distinct in some respect from the larger society within which it exists. (home, school, work, global)
Online Victimization	The utilization of technology for inappropriate communication specifically with minors including, but not limited to, grooming, catfishing, sexting, ghosting, doxing, blackmailing, and solicitation.
Output	Generated by a computer via a software application such as the result of a calculation or program that displays the results on the monitor or at a hardware level such as a printed document.
Ownership Rights	A legal right to publish a work for a specified number of years.
Peripherals	A device or unit that operates separately from the digital device but is connected to it, as a digital camera, flash drive, keyboard, printer, and etc.
Personal Information	Name, birth date, address, phone number, school name, parents names
Platforms	Basic computer hardware and software (operating system) on which software applications can be run.
Problem-Based	Learner-centered approach where learners conduct research, integrate theory and practice, and apply knowledge and skills to develop a plausible solution to a defined problem.
Prototype	A sample or model used to test a concept.

Security Vulnerabilities	A weakness which can be exploited by an attacker, to perform unauthorized actions within a computer system. Examples may include pop-ups, phishing, spam, malicious email links, and targeted ads.
Sequences	A particular order in which related events, movements, or things follow each other.
Social Media	Websites and applications that allow a user to create and share content or participate in social networking.
Social Network	A network of individuals connected by interpersonal relationships.
Software	The programs or apps that enable a computer to perform a specific task.
Spreadsheet	A grid of information within a program that displays mathematical or logical functions,
STEAM	Abbreviation for the subjects of Science, Technology, Engineering, Arts, Mathematics.
STEM	Abbreviation for the subjects of Science, Technology, Engineering, Mathematics.
Storage/Storage Device	A collective term for disks, tapes, disk array, flash drive, cloud storage, and any other mechanism capable of non-volatile data storage.
Subsystems	A part of a larger system or whole.
Symbol Keys	Ex: $, ?, &
System	A set of elements working together as parts of a mechanism or an interconnecting network.
Technological Systems	A system is unique to the study of technology.
Technology	The branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment.
Technology Literacy	One's ability to use, manage, assess, and demonstrate an understanding of technology.
Technology Strategies	The plan and tactics used by learners during a technology-rich lesson to meet and monitor learning progress towards an intended outcome or goal.
Troubleshoot	Identify and solve problems for an individual or organization.
Virtual Learning Environment	Is an online-based platform that offers students and professors digital solutions that enhance the learning experience.
Visualization	Includes images, infographics, graphs, tables, charts, and multimedia.
Word Processing	A computer application used for the production (including composition, editing, formatting, and possibly printing) of any sort of printable material.

Appendix A

Kindergarten - 2nd Grade Progressions

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.

Standard	Kindergarten	First Grade	Second Grade
ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	K.ET.EL.1.1: Demonstrate an understanding of how to create learning goals. K.ET.EL.1.2: Recognize technology as a tool to help achieve learning goals.	1.ET.EL.1.1: Demonstrate how to create a learning goal with the use of technology tools.	2.ET.EL.1.1: Use digital tools to monitor progress towards and achieve intended learning outcomes. 2.ET.EL.1.2: During dialogue with peers and teachers, draw conclusions about their use of digital tools to achieve an intended outcome.
ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	K.ET.EL.2.1: Participate in teacher-led collaboration with peers and experts using video, audio, and text-based resources.	1.ET.EL.2.1: Communicate original ideas with the use of digital tools within a group. 1. ET.EL.2.2: Use instructional videos during learning and collaboration.	2.ET.EL.2.1: Collaborate with others using digital tools. 2.ET.EL.2.2: Use online learning spaces to engage in learning both in and out of the classroom. 2.ET.EL.2.3: Seek out and use instructional videos and other digital resources during learning and collaboration.

ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	K.ET.EL.3.1: Identify and explore feedback from peers and make improvements.	1.ET.EL.3.1: Collaborate with others, provide feedback, and make improvements to complete a task.	2.ET.EL.3.1: Ask and answer questions about learning tasks and progress with peers and use feedback to improve digital products and processes during technology-rich learning experiences.
ET.EL.4: Students demonstrate an understanding of how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	K.ET.EL.4.1: Utilize grade-level appropriate technology vocabulary. K.ET.EL.4.2: Demonstrate troubleshooting techniques when appropriate. K.ET.EL.4.3: Demonstrate an understanding of user input options to achieve the desired output from the device. K.ET.EL4.4: Recognize letters and numbers on a keyboard.	1.ET.EL.4.1: Utilize grade-level appropriate technology vocabulary. 1.ET.EL.4.2: Independently and collaboratively troubleshoot basic problems when using age appropriate digital tools. 1.ET.EL.4.3: Effectively operate a device with minimal support. 1.ET.EL.4.4: Recognize letters and numbers on the keyboard.	2.ET.EL.4.1: Independently utilize grade-level appropriate digital tools to complete learning tasks. 2.ET.EL.4.2: Independently and collaboratively solve minor problems when using age appropriate digital tools. 2.ET.EL.4.3: Identify the location of punctuation and symbols on a keyboard. 2.ET.EL.4.4: Demonstrate use of proper finger placement on all letters and punctuation in the home row. 2.ET.EL.4.5: Explain or teach a digital tool to another person.

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Kindergarten	First Grade	Second Grade
ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	K.ET.CT.1.1: With support, create a model or graph to express possible solutions to a problem.	1.ET.CT.1.1: Create a model or graph to visually demonstrate an understanding of a concept in a collaborative group.	2.ET.CT.1.1: Individually create a model or graph to visually demonstrate an understanding of a concept.
ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	K.ET.CT.2.1: With support, use materials to explore data and suggest a solution.	1.ET.CT.2.1: With support, students analyze data and look for similarities in order to identify patterns and categories.	2.ET.CT.2.1: Independently, analyze data and look for similarities in order to identify patterns and categories.
ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	K.ET.CT.3.1: Break down everyday problems or routines into smaller, more manageable steps. (Basic Coding) K.ET.CT.3.2: Demonstrate an understanding and apply student and teacher-led directions including forward, backward, right, left, up, and down.	1.ET.CT.3.1: Create and follow step-by-step sequences to complete a task 1.ET.CT.3.2: Implement proper introductory computer programming vocabulary.	2.ET.CT.3.1: With guidance, create grade-appropriate computer-based programs that solve problems by (a) using automation to control a process, (b) identifying the most important information needed to solve a problem, (c) breaking multi-step problems into smaller parts, and (d) identifying and using patterns during problem-solving.

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.

Standard	Kindergarten	First Grade	Second Grade
ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	K.ET.DC.1.1: Recognize positive daily etiquette in relation to positive online etiquette.	1.ET.DC.1.1: Identify proper online etiquette and how online interactions impact their lives in digital and non-digital spaces.	2.ET.DC.1.1: Demonstrate awareness of proper online behaviors and how online interactions impact their lives in digital and non-digital spaces. 2.ET.DC.1.2: Distinguish between grade appropriate positive and meaningful contributions with negative and harmful contributions in digital spaces.
ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	K.ET.DC.2.1: Define digital citizenship. K.ET.DC.2.2: Identify appropriate and safe behaviors in real-world situations. K.ET.DC.2.3: With guidance, practice ways to be safe online as it relates to a given task and application.	1.ET.DC.2.1: Demonstrate respectful behaviors in real-world situations.	2.ET.DC.2.1: With teacher guidance, demonstrate appropriate and safe behaviors when using digital tools in school and/or classroom digital spaces. 2.ET.DC.2.2: Explain how to independently resolve negative situations in digital spaces.

ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	K.ET.DC.3.1: Demonstrate an understanding that digital resources (videos, images, text) are created by others and must be used respectfully.	1.ET.DC.3.1: Demonstrate an understanding that digital resources (videos, images, text) are created by others and must be used respectfully.	2.ET.DC.3.1: Interpret and follow the ownership rights of intellectual property of others. 2.ET.DC.3.2: Identify the author, date, and subject within different sources of information. 2.ET.DC.3.3: Interpret their intellectual property rights as a content producer.
ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	K.ET.DC.4.1: Identify what information is considered “personal data”. K.ET.DC.4.2: Demonstrate an understanding of how to stay safe online by evaluating situations when information should and should not be shared.	1.ET.DC.4.1: Explain why it is not safe to enter personal information into a website, online gaming system, etc. without adult supervision.	2.ET.DC.4.1: With support from a teacher, determine how technology exists in many areas of their lives and the importance of keeping personal information private. 2.ET.DC.4.2: Distinguish what information can and cannot be shared online.

Innovative Designer

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

Standard	Kindergarten	First Grade	Second Grade
ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	K.ET.ID.1.1: Describe a problem found within the classroom and express an understanding of why it is a problem. K.ET.ID.1.2: Utilize a digital tool to assist in sharing solution ideas with others.	1.ET.ID.1.1: Use basic search tools with a digital resource. 1.ET.ID.1.2: Use text and visuals to identify, solve, and share a problem.	2.ET.ID.1.1: Utilize strategies, such as the engineering design process or scientific method, to demonstrate understanding and solve problems. 2.ET.ID.1.2: Present solutions to an audience (e.g., class, parents, guest) using digital tools.
Standard	**Kindergarten**	**First Grade**	**Second Grade**
ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	K.ET.ID.2.1: With support, examine the possible issues of a suggested solution or prototype. K.ET.ID.2.2: Demonstrate perseverance when completing a challenging task even when a task fails. K.ET.ID.2.3: Verbally share suggested improvements to be made to the solution or prototype.	1.ET.ID.2.1: With support, students will test ideas to determine possible solutions to problems. 1.ET.ID.2.2: Demonstrate an understanding of a given problem(s) and persevere in solving.	2.ET.ID.2.1: Independently test ideas to determine possible solutions to problems. 2.ET.ID.2.2: Reflect on the results of trial and error during problem-solving to plan next steps and improve solutions.

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.

Standard	Kindergarten	First Grade	Second Grade
ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	K.ET.CC.1.1: Select the most appropriate creation tool from a teacher-generated collection.	1.ET.CC.1.1: With guidance, students will select a digital tool to use to publish their work.	2.ET.CC.1.1: With guidance, select a digital tool to use to communicate and publish their work.
ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	K.ET.CC.2.1: Use various materials to create a display of physical items to introduce the concepts of cut, copy, and paste.	1.ET.CC.2.1: Collect and present data in various visual formats.	2.ET.CC.2.1: Use grade-appropriate digital tools to create original works and other artifacts, including the responsible reuse of works created by others. 2.ET.CC.2.2: Discuss in small and whole groups how they can use works created by others.
ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	K.ET.CC.3.1: Define the term audience as it applies to digital communications. K.ET.CC.3.2: Compare and contrast different audiences and the effects this has on communication strategies.	1.ET.CC.3.1: Present a product to an audience.	2.ET.CC.3.1: Present their ideas and other information using multimedia and digital tools.

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.

Standard	Kindergarten	First Grade	Second Grade
ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	K.ET.GC.1.1: With support, recognize examples of diversity through the use of images, videos, and texts. K.ET.GC.1.2: Identify specific differences between community issues and world issues.	1.ET.GC.1.1: Communicate with people of different backgrounds, cultures and points of view using communication tools. 1.ET.GC.1.2: With support, utilize appropriate digital tools to further investigate specific issues.	2.ET.GC.1.1: Collaboratively create multimedia products and artifacts with people from other backgrounds, cultures, and points of view.
ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	K.ET.GC.2.1: Identify and apply various roles within a group to complete a collaborative task.	1.ET.GC.2.1: Perform a role in a group to complete a project or solve a problem.	2.ET.GC.2.1: In a small group, perform multiple roles and use a design process to complete a project or solve a problem using digital tools.

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.

Standard	Kindergarten	First Grade	Second Grade
ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	K.ET.KC.1.1: With support, identify where information can be found. K.ET.KC.1.2: Demonstrate an understanding of the components that make a source credible by following teacher-selected examples.	1.ET.KC.1.1: Analyze the credibility of teacher-selected resources.	2.ET.KC.1.1: Independently use appropriate search terms when researching a given topic using the internet.
ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	K.ET.KC.2.1: Identify the difference between fiction and non-fiction. K.ET.KC.2.2: With support, begin to recognize fact and opinion.	1.ET.KC.2.1: Distinguish the difference between fiction and non-fiction. 1.ET.KC.2.2: Distinguish the difference between fact and opinion.	2.ET.KC.2.1: Distinguish between fact and opinion on a website, and fiction and nonfiction in a digital resource.
ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	K.ET.KC.3.1: With support, identify tools that can assist in organizing information.	1.ET.KC.3.1: With guidance, students will use digital multimedia tools to organize information. 1.ET.KC.3.2: Use tools on a device to transfer information from one place to another.	2.ET.KC.3.1: With guidance, use digital multimedia tools to organize information. 2.ET.KC.3.2: Use digital platforms and graphic organizers as a class or with a partner to demonstrate a shared understanding of the content.

ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	K.ET.KC.4.1: As a class, identify examples of real-world problems.	1.ET.KC.4.1: Use digital tools to solve a real-world problem.	2.ET.KC.4.1: With teacher support, select an appropriate digital tool to solve a real-world problem. 2.ET.KC.4.2: Individually, use digital tools to create solutions to real-world problems. 2.ET.KC.4.3: Utilize diverse media formats (e.g., website video clip, print, digital/print weekly) to report on a shared topic, then participate in a classroom discussion on the topic using digital tools.

Appendix B

3rd - 5th Grade Progressions

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.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	3.ET.EL.1.1: Effectively use a variety of digital equipment to track learning goals.	4.ET.EL.1.1: With guidance, identify a goal and determine how digital learning tools can help accomplish that goal.	5.ET.EL.1.1: Evaluate what changes need to be made within a system to accomplish a goal.
ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	3.ET.EL.2.1: Create and use a list of support based on classmates' skill level. 3.ET.EL 2.2: Develop a support system of experts and peers.	4.ET.EL.2.1 Work effectively in groups with analyzing roles and building networks with industry experts.	5.ET.EL.2.1: Collaborate with a variety of groups to design a digital product using online tools.
ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	3.ET.EL.3.1: Technology tools to provide helpful feedback to peers. 3.ET.EL.3.2: Interpret specific feedback to improve their learning.	4.ET.EL.3.1: Analyze the effects of feedback with a technological systems model.	5.ET.EL.3.1: Use or create digital forms to receive feedback from others to deepen learning.
ET.EL.4: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	3.ET.EL 4.1: Apply simple troubleshooting skills to solve common technology-related problems. Such as: checking computer sound, correct plug in for headphones, turning on/off devices, or use of caps lock. 3.ET.EL.4.2: Apply prior knowledge to operate unfamiliar or new equipment	4.ET.EL.4.1: Demonstrate proficiency in the use of vocabulary, computers and applications as well as an understanding of the concepts underlying hardware, software and connectivity. 4.ET.EL.4.2: Transfer previous knowledge from different products into new emerging technologies	5.ET.EL.4.1: Compare and contrast the functions and capabilities of input and/or output devices and other peripherals. 5.ET.EL.4.2: Demonstrate the ability to transfer data between devices.

	Such as: logging into computers, turning on/off devices, or saving files. 3.ET.EL.4.3: Demonstrate correct typing techniques to compose two paragraphs in a given timeframe.	4.ET.EL.4.3: Use device appropriate techniques and proper finger placement to compose a 1-page typed document in a given time frame	5.ET.EL.4.3: Implement grade-level appropriate technology vocabulary. 5.ET.EL.4.4: Use device-appropriate techniques to compose 2 pages in a given time frame. 5.ET.EL.4.5: Personalize application menus and toolbars for greater productivity. 5.ET.EL.4.6: Determine how changes in a technology tool affect the outcome of a task.

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	3.ET.CT.1.1: Demonstrate an understanding of interactive resources that help facilitate problem solving and decision making. Such as: visual representations of plots, charts, and graphs.	4.ET.CT.1.1: Using logical thinking, select digital tools to create visually appropriate graphical representation of data (e.g., line graphs, circle graphs, bar graphs, etc.).	5.ET.CT.1.1: Use digital tools to create models and analyze data.

ET.CT.2: Students use the computational thought process to represent data, deconstruct problems, identify key information, and formulate solutions.	3.ET.CT.2.1: Demonstrate an understanding of the computational thought process to comprehend and explain a variety of data and simulations/models.	4.ET.CT.2.1: Identify components of the computational thought process within the context of examining a problem.	5.ET.CT.2.1: Use the computational thought process to formulate a solution for a given problem.
ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	3.ET.CT.3.1: Use the understanding of mathematical tools to communicate and interpret data. 3.ET.CT.3.2: Collect and organize data in spreadsheets, tables, etc. 3.ET.CT.3.3: Describe patterns in spreadsheets, tables, etc.	4.ET.CT.3.1: Students will recognize an algorithm which communicates and interprets clear instructions for a predictable, reliable output which can be replicated or automated in the future.	5.ET.CT.3.1: Analyze a process to produce a result, explaining how controls use information to cause systems to change.

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.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	3.ET.DC.1.1: Define and explain what a digital footprint is and how it can be used in the technology world. 3.ET.DC.1 2: Show and explain what responsible and ethical technology practices look like. 3.ET.DC.1.3: Demonstrate and communicate an understanding of safety issues related to online practices and behaviors.	4.ET.DC.1.1: Describe and practice safety precautions while online, including social interactions and/or when using network devices	5.ET.DC.1.1: Describe the impact of unethical and illegal technology usage on the individual and society.
ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	3.ET.DC.2.1: Demonstrate and explain what rules and laws apply to digital technology and content. 3.ET.DC.2.2: Articulate and role model powerful practices when it comes to digital etiquette. Such as identifying/reporting cyberbullying, inappropriate usage, and pop-ups/advertising.	4.ET.DC.2.1: Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world	5.ET.DC.2.1: Integrate personal safety precautions and etiquette while online.

ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	3.ET.DC.3.1: Demonstrate and role model social rules for appropriate behavior. 3.ET.DC.3.2: Recognize and promote digital respect when it comes to the gathering of relevant information and sources.	4.ET.DC.3.1: Analyze the effects of cyberbullying 4.ET.DC.3.2: Use digital tools to identify the needed information to cite sources with guidance.	5.ET.DC.3.1: Construct and define social rules for behavior based upon previously learned concepts of bullying and cyberbullying. 5.ET.DC.3.2: Use digital tools to properly cite digital sources when gathering relevant information.
ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	3.ET.DC.4.1: Describe how digital information is archived. 3.ET.DC.4.2: Describe the process and importance of password security.	4.ET.DC.4.1: Manage personal data to maintain privacy and to demonstrate an understanding that data-collection technology is used to track their navigation online.	5.ET.DC.4.1: Make observations of how data is collected, tracked and shared online. 5.ET.DC.4.2: Integrate personal safety precautions and etiquette while online. 5.ET.DC.4.3: Connect the relationship between technological inventions and society changes.

Innovative Designer

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

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	3.ET.ID.1.1: Use technology to share ideas, compare solutions, and design plans to solve real life problems. 3.ET.ID 1.2 Develop a design process to solve real life problems.	4.ET.ID.1.1: Plan and implement a design process to a given problem and share your results with an authentic audience.	5.ET.ID.1.1: Plan and implement a design process: identify the problem, brainstorm solutions, design solution, test and evaluate solutions, present the solution. 5.ET.ID.1.2: Generate ideas using or not using technology tools for a variety of projects.
ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	3.ET.ID.2.1: Assess information to examine prototypes and solutions to solve open-ended problems.	4.ET.ID.2.1: Research and solve open-ended problems. 4.ET.ID.2.2: Develop, test and refine prototypes as part of a cyclical design process.	5.ET.ID.2.1: Given an engineering design challenge, with an end goal in mind, synthesize the process collaboratively using digital tools to simulate, record, reiterate or present solutions.

Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes by using the platforms, tools, styles, formats and digital media to appropriate to their goals.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	3.ET.CC 1.1: Select and use videoconferencing to communicate and learn from others. Such as: online discussions, communicate virtually.	4.ET.CC.1.1: Construct a digital product with different platforms to communicate with others.	5.ET.CC.1.1: Select the most effective tools to communicate with others.

	3.ET.CC.1.2: Create digital audio recordings for teacher-directed activities.		
ET.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	3.ET.CC.2.1: Modify teacher-created slides using appropriate software. Such as: Multimedia programs 3.ET.CC. 2.2 Discuss laws and rules as an introduction to digital content protections	4.ET.CC.2.1: Create original digital works using multiple platforms. 4.ET.CC.2.2: Identify and discuss laws and rules that apply to digital content and information.	5.ET.CC.2.1: Produce relevant information using advanced search functions. 5.ET.CC.2.2: Use digital tools to properly cite digital sources with guidance. 5.ET.CC.2.3: Create original artifacts using digital tools to demonstrate knowledge.
ET.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	3.ET.CC.3.1: Use digital drawing tools and other appropriate software to express ideas individually and collaboratively. 3.ET.CC.3.2: With teacher assistance, I can select the appropriate medium for any digital project.	4.ET.CC.3.1: Generate, develop and communicate design ideas and decisions using appropriate terms and graphical representations based on the audience.	5.ET.CC.3.1: Use digital tools to communicate ideas with the use of visualizations. 5.ET.CC.3.2: With guidance, choose the most appropriate digital medium considering audience and content.

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.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	3.ET.GC.1.1: Connect with other students to discuss, collaborate, and generate solutions to local, national, and global issues using digital or non-digital tools.	4.ET.GC.1.1: Use digital tools to work collaboratively with friends and people of diverse backgrounds to examine local, national, and global issues	5.ET.GC.1.1: Identify with diverse perspectives when examining local, national, and global issues using digital tools for connection.
ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	3.ET.GC.2.1: Use teacher-assigned collaborative teaming and roles to create, design, or develop a project that addresses global challenges and issues.	4.ET.GC.2.1: Perform a variety of roles within a collaborative team to complete a project or solve a problem	5.ET.GC.2.1: Perform and analyze the various team roles using digital tools to complete or solve the project within a team.

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.

Standard	Third Grade	Fourth Grade	Fifth Grade
ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	3.ET.KC.1.1: Gather information from research using appropriate digital tools. 3.ET.KC.1.2: Use the digital tools to locate, retrieve and organize information effectively. 3.ET.KC.1.3: Use digital tools effectively, such as: Search engine, database, content library, personal bookmarks, shortcuts, hyperlinks, etc.	4.ET.KC.1.1: Use appropriate search techniques, digital learning tools and resources to effectively locate a variety of information.	5.ET.KC.1.1: Produce relevant information using advanced search functions. 5.ET.KC.1.2: Determine the reliability and relevancy of a source using a teacher-provided evaluation tool. 5.ET.KC.1.3: Produce relevant information using advanced search functions.
ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	3.ET.KC.2.1: Access, analyze and evaluate electronic sources for accurate utility. 3.ET.KC.2.2: Use digital tools to demonstrate content knowledge of proper citation, plagiarism, while gathering relevant and credible information.	4.ET.KC.2.1: Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	5.ET.KC.2.1: Determine the reliability and relevancy of a source using a teacher-provided evaluation tool.

ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	3.ET.KC.3.1: Use digital templates and graphic organizers to record questions and plan investigations for meaningful learning experiences.	4.ET.KC.3.1: Organize information from digital resources using a variety of tools and strategies to make meaningful learning experiences.	5.ET.KC.3.1: Design an innovative project in word processing, publishing, spreadsheet, and presentation applications independently. 5.ET.KC.3.2: Select the most effective tools and strategies to make meaningful learning experiences.
ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	3.ET.KC.4.1: Gather information for research using teacher-selected digital tools. 3.ET.KC.4.2: Use digital tools to gather and analyze for the purpose of investigative reporting. and generate solutions.	4.ET.KC.4.1: Use and analyze digital tools to explore global issues and research potential solutions.	5.ET.KC.4.1: Determine how changes in a technology tool affect the outcome of a task. 5.ET.KC.4.2: Collaborate with a variety of groups to design a digital product using online tools. 5.ET.KC.4.3: Analyze what changes need to be made within a problem to accomplish a solution.

Appendix C
6th - 8th Grade Progressions

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.

Standard	6th Grade	7th Grade	8th Grade
ET.EL.1: Students will develop technology strategies to achieve and reflect on learning goals to improve outcomes.	6.ET.EL.1.1: Identify personal learning goals while using digital tools with teacher assistance. 6.ET.EL.1.2: Utilize teacher-selected digital tools and resources to assist them in their learning. 6.ET.EL.1.3: Use digital tools to provide feedback to peers.	7.ET.EL.1.1: Set and communicate personal learning goals using digital tools to reflect on progress. 7.ET.EL.1.2: Compare the types of digital tools and resources best able to assist them in their learning. 7.ET.EL.1.3: Use digital tools to share thoughts, ideas, and concepts with peers.	8.ET.EL.1.1: Set and communicate personal learning goals, use digital tools to share with others, and reflect on their learning. 8.ET.EL.1.2: Use a variety of digital tools to achieve their learning goals and justify the rationale for their selection. 8.ET.EL.1.3: Create a digital portfolio to share their work and receive feedback from peers.
ET.EL.2: With or without support, students build networks of experts and peers to enhance their learning.	6.ET.EL.2.1: Identify and engage in school provided virtual learning environments. 6.ET.EL.2.2: Customize their learning in collaboration with an educator.	7.ET.EL.2.1: Demonstrate the ability to use school approved virtual learning environments to collaborate, present, and publish information. 7.ET.EL.2.2: Use school-approved collaborative and file sharing groups to network and get assistance from teachers and peers.	8.ET.EL.2.1: Apply individually selected and school approved virtual learning environments to collaborate, present, and publish information. 8.ET.EL.2.2: Use collaborative technology to build a personal learning network.

Standard	6th Grade	7th Grade	8th Grade
ET.EL.3: Students improve learning by seeking feedback from others using digital tools and other resources to demonstrate learning in a variety of ways.	6.ET.EL.3.1: Use teacher-provided interactive digital tools to gather data to help make decisions. 6.ET.EL.3.2: Actively seek performance feedback from teachers and peers using digital tools to improve and demonstrate learning.	7.ET.EL.3.1: Use digital tools to gather data to help guide and assess information during the learning process. 7.ET.EL.3.2: Solicit feedback for ideas using digital tools.	8.ET.EL.3.1: Evaluate a variety of digital tools and methods to effectively and efficiently gather and publish information. 8.ET.EL.3.2: Utilize digital communication tools to obtain feedback to improve the overall quality of the product.
ET.EL.4: Students understand how technology works, know how to independently troubleshoot, and are not afraid to take a risk in choosing and utilizing new or current technologies for learning.	6.ET.EL.4.1: Demonstrate the use of keyed technology to produce a product in any learning environment. 6.ET.EL.4.2: Use a checklist of items to consider when troubleshooting problems. 6.ET.EL.4.3: Navigate a variety of digital tools and transfer their knowledge to learn new skills. 6.ET.EL.4.4: Demonstrate knowledge of a variety of word processing tools to complete a task.	7.ET.EL.4.1: Incorporate the use of keyed technology to produce a product in any learning environment. 7.ET.EL.4.2: Develop a checklist of items to consider when troubleshooting problems. 7.ET.EL.4.3: Develop criteria for selecting digital learning tools and resources to accomplish a defined task. 7. ET.EL.4.4: Demonstrate knowledge of a variety of digital presentation tools to complete a task.	8.ET.EL.4.1: Implement the use of keyed technology to produce a product in any learning environment. 8.ET.EL.4.2: Demonstrate the ability to locate and use documentation and online resources to help solve hardware/software problems. 8.ET.EL.4.3: Apply their knowledge and skills from existing technologies and devices to successfully use new technologies. 8.ET.EL.4.4: Demonstrate knowledge of a variety of multimedia tools to complete a task.

Computational Thinker

Students develop and employ strategies for demonstrating an understanding of and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Standard	6th Grade	7th Grade	8th Grade
ET.CT.1: Students select appropriate technology to analyze data, create models, and problem-solve through the use of logical thinking.	6.ET.CT.1.1: With support, analyze data to create models.	7.ET.CT.1.1: Independently select tools to analyze data to create models.	8.ET.CT.1.1: Investigate and compare the digital tools used to analyze data and create models for problem solving. 8.ET.CT.1.2: Recommend and integrate applications that could be extended to other situations.
ET.CT.2: Students select the most effective tools to represent data, deconstruct problems, identify key information, and formulate solutions.	6.ET.CT.2.1: Gather data and determine if patterns or trends are present.	7.ET.CT.2.1: Analyze data, examine patterns, and apply information for decision-making to formulate a solution.	8.ET.CT.2.1: Use data and patterns to design an efficient system to formulate solutions to test for intended outcomes. 8.ET.CT.2.2: Compare the effect one system has on another system.
ET.CT.3: Students will recognize basic concepts of automation including decomposition, abstraction, use algorithmic thinking, and pattern recognition.	6.ET.CT.3.1: Create algorithms to demonstrate an understanding of logical processes and use reasoning. 6.ET.CT.3.2: Identify technology automation.	7.ET.CT.3.1: Create simple computational codes to respond to simple commands. 7.ET.CT.3.2: Relate automation to the progression of technology and the impacts on society and careers.	8.ET.CT.3.1: Investigate coding efficiency for patterns such as loops and functions and implementation of abstraction such as variables and parameters. 8.ET.CT.3.2: Evaluate automation to the progression of technology and the impacts on society and careers.

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.

Standard	6th Grade	7th Grade	8th Grade
ET.DC.1: Students will demonstrate an understanding of the importance of creating and maintaining a positive online identity and the permanence and future impact of their online and offline decisions when using digital technology.	6.ET.DC.1.1: Implement basic precautions to protect themselves and others when using digital technology. 6.ET.DC.1.2: Identify the risks of sharing information online and assess the importance of a positive digital footprint. 6.ET.DC.1.3: Recognize and discuss ways to maintain personal safety and avoid online victimization.	7. ET.DC.1.1: Lead or participate in class discussions about digital literacy and online safety. 7. ET.DC.1.2: Manage their digital identities and reputations within school policy, including demonstrating the permanence of digital actions. 7. ET.DC.1.3: Demonstrate an understanding of and implement strategies to maintain personal safety and avoid online victimization.	8.ET.DC.1.1: Analyze risks and consequences of sharing information online and advocate for the importance of creating and maintaining a positive digital footprint for self and others. 8.ET.DC.1.2: Examine the personal and societal positive and negative impacts of digital technology use. 8.ET.DC.1.3: Implement and advocate strategies to maintain personal safety and avoid online victimization of self and others.
ET.DC.2: Students will practice positive, safe, legal, and ethical behavior when using technology.	6. ET.DC.2.1: Demonstrate an understanding of the importance of external and internal Acceptable Use Policies or Terms of Use. 6.ET.DC.2.2: Recognize the impact of cyberbullying in online communication, relationships, and mental health.	7. ET.DC.2.1: Define and outline external and internal Acceptable Use Policies or Terms of Use. 7.ET.DC.2.2: Explain the impact of cyberbullying in online communication, relationships, and mental health.	8.ET.DC.2.1: Critique external and internal Acceptable Use Policies or Terms of Use. 8.ET.DC.2.2: Advocate social rules of anti-bullying and cyberbullying to promote positive and healthy online communication, relationships, and mental health.

	6.ET.DC.2.3: Identify the positive and negative impact the use of technology can have on personal, professional, and community relationships.	7.ET.DC.2.3: Explain the positive and negative impact the use of technology can have on personal, professional, and community relationships.	8.ET.DC.2.3: Connect how technology can have positive and negative impacts on personal, professional and community relationships.
ET.DC.3: Students demonstrate and promote respect for using and sharing the intellectual property of others and themselves.	6.ET.DC.3.1: Demonstrate an understanding of intellectual property and terms of use. 6..ET.DC.3.2: Work with librarians and educators in media literacy to demonstrate an understanding of how to locate digital and non-digital information and resources.	7.ET.DC.3.1: Distinguish and properly apply terms of use between different types of intellectual property. 7.ET.DC.3.2: Work with librarians and educators in media literacy to demonstrate an understanding of how to attribute material for digital and non-digital products.	8.ET.DC.3.1: Advocate for the proper use of intellectual property and implement in all subject areas. 8.ET.DC.3.2: Work with librarians and educators to demonstrate an understanding of how to add attribution to original works.
ET.DC.4: Students demonstrate an understanding of how personal data is collected, tracked, and used, how to maintain privacy, and how to safely share it online.	6.ET.DC.4.1: Define security vulnerabilities to protect personal privacy. 6.ET.DC.4.2: Demonstrate an understanding of when and when not to click on links, pop-ups, and advertisements while using the Internet.	7.ET.DC.4.1: Evaluate online security vulnerabilities to determine their safety, privacy policy, and appropriate use. 7.ET.DC.4.2: Demonstrate an understanding of how websites track site users to monitor their online behavior which results in targeted links, pop-ups, and advertisements.	8.ET.DC.4.1: Investigate cybersecurity vulnerabilities and their personal, local, and global impacts. 8.ET.DC.4.2: Assess methods that online merchants collect information to target and market users.

Innovative Designer

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

Standard	6th Grade	7th Grade	8th Grade
ET.ID.1: With or without the use of technology, students can apply a design process to generate ideas, consider possible solutions, create a plan to solve a problem, and share their innovative ideas with others.	6.ET.ID.1.1: Identify and apply a selected design process with teacher support.	7.ET.ID.1.1: Define and apply a selected design process.	8.ET.ID.1.1: Apply and justify a design process to solve identified problems.
ET.ID.2: Students persevere when researching and solving open-ended problems and use trial-and-error strategies to test and refine prototypes.	6.ET.ID.2.1: Explain how optimization is the process of making a prototype through trial and error as fully functional and effective as possible. 6.ET.ID.2.2: Demonstrate an understanding that the design process is iterative.	7.ET.ID.2.1: Describe how trade-offs involve a choice of one quality over another in prototype design. 7.ET.ID.2.2: Determine and justify movement within the steps of the design process while solving a problem.	8.ET.ID.2.1: Design and test prototypes to solve problems. 8.ET.ID.2.2: Critique and synthesize results of tests to refine prototypes.

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.

Standard	6th Grade	7th Grade	8th Grade
ED.CC.1: Students evaluate and select a variety of platforms and tools to create products and communicate with others to appropriately complete tasks.	6.ET.CC.1.1: Identify a variety of platforms and digital tools before, during, and after completion of a task. 6.ET.CC.1.2: Use a variety of tools to communicate their learning effectively.	7.ET.CC.1.1: Evaluate the appropriateness of their chosen platform or tools before, during, and after completion of a task. 7.ET.CC.1.2: Use digital tools to document personal learning experience and receive feedback from peers.	8.ET.CC.1.1: Evaluate the appropriateness of their chosen platform or tools before beginning and during the project, and after completion are able to justify their choice to an audience. 8.ET.CC.1.2: Evaluate and implement effective collaborative technology to manage interpersonal communication and information.
ED.CC.2: Students create original artifacts or responsibly remix or repurpose existing digital resources.	6.ET.CC.2.1: Create an audio and/or visual project using online materials that are cited correctly.	7.ET.CC.2.1: Use creativity to produce original artifacts.	8.ET.CC.2.1: Create original artifacts that contain properly remixed or repurposed material.
ED.CC.3: Students select the appropriate medium and communicate clear, complex ideas through the use of visualizations for an intended audience.	6.ET.CC.3.1: Select from a list of tools to create data visualizations that are easily understood by their peers.	7.ET.CC.3.1: Select from a list of tools to create data visualizations that are easily understood by their peers and others.	8.ET.CC.3.1: Select and justify a tool to create a visualization to effectively explain and clarify content and ideas to an audience.

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.

Standard	6th Grade	7th Grade	8th Grade
ET.GC.1: Students will use collaborative digital tools to connect with people of different backgrounds, cultures, and points of view to examine local, national, and global issues.	6.ET.GC.1.1: Use a variety of digital tools to collaborate and communicate with peers, experts, and other audiences. 6.ET.GC.1.2: Use digital tools to connect with people of different backgrounds, cultures and different points of view. 6.ET.GC.1.3: Use digital tools to gather information, create products, and present material regarding local, national, and global issues.	7.ET.GC.1.1: Select and apply digital environments to collaborate, present, and publish information. 7.ET.GC.1.2: Select and apply digital tools to connect with people of different backgrounds, cultures and different points of view. 7.ET.GC.1.3: Select and apply digital tools to gather information, create products, and present material regarding local, national, and global issues.	8.ET.GC.1.1: Evaluate digital tools to learn from and collaborate with peers, experts, and community members with different perspectives and knowledge bases from a diversity of cultures and geographic regions. 8.ET.GC.1.2: Evaluate digital tools to connect with people of different backgrounds, cultures and different points of view. 8.ET.GC.1.3: Evaluate digital tools to gather information, create products, and present material regarding local, national, and global issues.
ET.GC.2: In a collaborative team, students will perform a variety of roles to complete a project or solve a problem using digital tools.	6.ET.GC.2.1: Identify group roles to actively participate and take ownership for the work of a team. 6.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings and results to local or global audiences.	7.ET.GC.2.1: Determine their role on a team to meet goals, based on their knowledge of technology and content, as well as personal preference. 7.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings and results and gather feedback to local or global audiences.	8.ET.GC.2.1: Seek and incorporate feedback from team members and users to refine a solution that meets user needs. 8.ET.GC.2.2: Collaborate using a variety of digital tools to present group findings or results and gather feedback to revise products for local or global audiences.

	6.ET.ED.2.3: Distribute tasks and maintain a project timeline when collaboratively developing artifacts.	7.ET.CT.2.3: Create a project plan timeline and role descriptions for an upcoming group project.	8.ET.GC.2.3: Identify and use a digital project management tool to track team performance on assigned tasks.

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.

Standard	6th Grade	7th Grade	8th Grade
ET.KC.1: Students employ appropriate research techniques to effectively locate credible resources to help them in the learning process.	6.ET.KC.1.1: Explain the differences among various search engines and how they rank results.	7.ET.KC.1.1: Use effective search strategies for locating and retrieving electronic information.	8.ET.KC.1: Implement a plan for conducting a search of electronic resources for a given task.
ET.KC.2: Students learn how to evaluate sources for currency, authority, accuracy, perspective and relevance.	6.ET.KC.2.1: Demonstrate knowledge that not all online sources are accurate and credible. 6.ET.KC.2.2: With support, select online resources based on a list of criteria.	7.ET.KC.2.1: Demonstrate an understanding that media presents messages that are beneficial and may have an inherent bias and question who produced the material. 7.ET.KC.2.2: Independently select online resources based on a list of criteria.	8.ET.KC.2.1: Analyze online sources for accuracy, authority, perspective, relevance, and currency. 8.ET.KC.2.1: Evaluate digital sources based on the appropriateness to specific tasks.
ET.KC.3: Students use a variety of strategies and digital tools to organize information and make meaningful connections.	6.ET.KC.3.1: Locate and collect resources from a variety of sources and organize into collections for a wide range of projects and purposes.	7.ET.KC.3.1: Integrate information presented in different media or formats to clarify information, strengthen claims and evidence, and add interest.	8.ET.KC.3.1: Develop, analyze, and integrate a repertoire of strategies to apply new technologies to tasks.
ET.KC.4: Students use digital tools to explore real world problems and issues and pursue potential solutions.	6.ET.KC.4.1: Develop digital materials to promote personal or real-world understanding.	7.ET.KC.4.1: Create new products to demonstrate knowledge to provide innovative solutions to real-world problems.	8.ET.KC.4.1: Recommend and integrate digital tools to explore real-world problems and potential solutions.